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THE LONG-TERM OUTCOMES OF EARLY INSTITUTIONAL CARE

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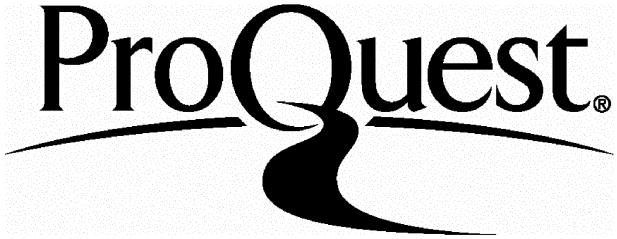

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ABSTRACT

This thesis reports the adult follow-up of a prospective longitudinal study of the effect of early institutional care. A group of 30-year-olds who all spent from age 4 months to at least 22 months in institutional care, and were then adopted or 'restored' to a biological parent, were compared with a group of individuals, brought up by their biological parents. The ex-institutional individuals had been previously studied at ages 2, 4 ½, 8 and 16, and the comparison group had previously taken part at the 16 years old follow-up.

The ex-institutional group had the unique experience of being deprived the opportunity to form early attachment relationships in their first years of life. This research aimed to examine the long-term effects of this experience on the individuals' adult adjustment, interpersonal relationships and psychological health. In general the outcomes were very favourable, showing little difference from the comparison group in a wide range of areas. However, some clear differences were evident, including greater difficulties in their relationships with their families, higher rates of police contact and a greater degree of self-reported aggression and self-sufficiency than the comparison group. There were persistent trends in most areas of functioning in the direction of the ex-institutional group experiencing greater difficulties than the comparisons. The variance in outcomes were also significantly greater than for the comparisons, demonstrating great heterogeneity of outcome for the ex-institutional group. Despite evidence of extremely good recovery, these individuals therefore still showed evidence of some lasting long-term effects of their early institutional care.

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CHAPTER 1

INTRODUCTION

In 1951 Bowlby argued that children need a close, loving, continuous and reliable relationship with a primary carer in their early years for optimal development and good functioning in adulthood. This builds on theories of development where the first relationship between baby and their carer is seen as the foundation for the development of the child's understanding of itself, others and the interactions between them (Freud, 1940; Goldfarb, 1943b; Spitz, 1945). The bond or attachment that develops with one or more carers acts as a 'prototype' for all future relationships (Freud, 1940), and the basis for the child's growing understanding of the world around them (Bowlby, 1988). The absence of such a relationship in the early months and years of life has for many years been seen as having grave implications for the child's development into adulthood and their ability to function normally, particularly in the interpersonal world around them (Bowlby, 1951).

The study presented here aims to contribute evidence towards this approach to development by examining the long-term effects of the absence of an intimate attachment relationship in a child's early years, in this case due to being brought up in institutional care for the first years of life. This study is the most recent stage of a prospective, longitudinal study following the development of the same group of children first seen when they were two and a half years old in institutional care (Tizard & Joseph, 1970; Tizard & Tizard, 1971; Tizard & Rees, 1974; Tizard & Rees, 1975; Tizard, 1977; Tizard & Hodges, 1978; Hodges & Tizard, 1989a; Hodges & Tizard, 1989b). The relative importance of these early experiences to

developmental outcomes and the extent to which the child is able to recover from such adverse early experiences is the focus of this study.

There are two opposing positions in this debate: the first emphasises the importance of early experience in development, stating that early experience plays a crucial role in determining our later functioning. It is argued that deprivation or privation in the first years of life brings about irreversible damage. Bowlby was one of the early advocates of this position claiming that poor quality care in an emotionally adverse environment during the first year or so of life has long lasting effects on development and personality (Bowlby, 1952). The opposing argument emphasises the remarkable ability of children to recover from adverse experiences. Clarke and Clarke (1976) claimed that the effects of early adversity could be wholly overcome by later beneficial experience. They argue that full developmental recovery is possible if a child is introduced to a new good quality social environment (Clarke & Clarke, 1976). Evidence of at least partial spontaneous recovery was given by Clarke & Clarke (1959) and Beres & Obers (1950).

If this debate is made more specific and addresses the presence or absence of an attachment bond with a carer, these two positions can be translated in the following way: Does the absence of a relationship with a reliable and loving primary caregiver in the early years of life inevitably lead to irreparable damage in functioning in later life, and in particular, with effects on personality development, development of the social self and the abilities necessary for interpersonal relationships in later life? Or, can the effects of this early privation be overcome by later experience within a more favourable environment? As these positions illustrate this argument is primarily

about the relative power of early and later psycho-social environments to influence a child's development.

This chapter will examine in more depth the theories and evidence for and against these positions, starting with a description of attachment theory and the issues around the long-term importance of early relationships, followed by a historical overview of the literature on the impact of institutional care. The evidence concerning the outcomes following early institutional care will be reviewed, including studies of early and late adoptions, followed by a review of the literature on outcomes in adulthood. The literature on the factors involved in these outcomes and the possible mechanisms by which these operate will then be addressed. This chapter will conclude with an overview of the findings to date regarding the longitudinal study (of which the present study is the most recent stage) following the development of a group of ex-institutional children into their adolescence. This will be followed by a short summary and a description of the present study and the research questions that it aims to address.

The importance of early relationships

A child's first social relationship is widely seen as one of the most important achievements of childhood. It is seen as the foundation on which all psychosocial development is based (Bowlby, 1951). The relationship with our carers shapes our personality, our social understanding and our interpersonal behaviour. It is from within this relationship that the child learns to make sense of his own and other's behaviour, emotions and thoughts, and in this way develops social and emotional understanding (Holmes, 1993). The reliability and availability of this person

conveys to the child their deep commitment and love, and as a result the child will become capable of reciprocating this affection. The child derives its confidence and security in the world from this relationship. The more coherent, responsive and stimulating the social relationships that the child is in, the more they will be able to learn about and understand themselves, others and the relationships to which they belong. (Schaffer, 1990)

Bowlby, the first to develop a theory of attachment, argued that an absence or break in the relationship between child and primary caregiver during the early months and years will adversely affect the capacity of the child to form later intimate relationships (Bowlby, 1951). The emphasis on early experience also draws on ideas about age-based 'critical periods' or 'sensitive periods', which originally came to light in the context of ethology and the study of animal behaviour. This, together with psychoanalytic theory, was one of the major influences on Bowlby's thinking and development of the theories about attachment and attachment behaviour. These theories concerned the age differences in the relative susceptibility to environmental influences during development (MacDonald, 1985). This led to ideas that if something was not experienced at the right time then the damage consequent on this absence was permanent and irreversible. So in terms of theories of attachment, this implied that if maternal privation/deprivation is experienced during infancy then permanent damage would result. Bowlby stated that 'a break in the continuity of the mother-child relationship at a critical stage in the development of child's social responses may result in more or less permanent impairment of the ability to make relationships' (Bowlby, 1956). At worst this could create 'affectionless psychopathy' or the total inability to form any meaningful permanent emotional

commitments, in love, marriage, parenthood, or friendship. Rutter (1991) has also argued that 'the development of social relationships occupies a crucial role in personality growth, and abnormalities in relationships are important in many types of psychopathology'.

Bowlby's Attachment Theory

Bowlby developed a theory of attachment as a framework within which to understand different behaviours and relationship patterns between children and their parents, and suggested mechanisms that operate at the earliest stages of a child's development. Attachment behaviour took the form of, for example, a child seeking proximity to selected adults when their anxiety increases or they feel vulnerable. The parent provides a safe and protective environment, or a 'secure base' from which the child can explore the world and learn new skills. This relationship also offers experiences that allow the child to learn about himself, others and the social world around him.

Bowlby proposed the existence of an 'internal working model' built up as a model of the external reality, somewhat similar to the 'internal world' of psychoanalysis (Bowlby, 1973). Bowlby hypothesised that through experiences during infancy and early childhood the baby builds up an internal working model of relationships, which guides the child about what to expect in their intimate relationships. Built up from repeated patterns of interactive experience, the child develops a set of models of the self, others and the relationship between them, from which he can begin to make sense of himself, others and social relationships in general. This model helps organise his expectations about other people's availability and responsiveness. The

individual's behaviour will reflect this internalised regulatory pattern based on expectations derived from their history of interactions. This model will influence the development of his personality, guiding how he perceives, interprets and responds to others. This internal model is hypothesised as being relatively stable and acts as an enduring representational model from which to predict and relate to the world. The internal working models are thought to guide much of our interpersonal behaviour during childhood and in later life. In this way the model affects all later intimate relationships (Bowlby, 1988) by acting as a sort of prototype for subsequent close relationships. Internal working models are however subject to constant revision and change in the light of new relationships and experience, although some are more resistant to change than others (Holmes, 1993). They are the product of a continuous process throughout a child's development and even adulthood. If the environmental circumstances change then the attachment behaviour and internal model may change as well, as for example when a child is adopted from institutional care to the very different relationship environment of their new family.

A model such as this provides a possible continuity mechanism for linking early events and experience with later events and experience, as well as linking the pre-verbal infant with the later social self. The relationships that we experience in our early years and the model that we develop have a large impact on our future behaviour at all ages and contains aspects that will make us more or less vulnerable or give us protection against subsequent exposure to environmental risk. The internal working model determines how an individual interprets and experiences past and present events, and what meaning is given to them, which in turn will mediate the impact of stress on that individual.

Patterns of attachment

Several different styles of attachment relationships between child and carer have been described, and fall into two main categories of attachment patterns, secure and insecure. The patterns are features of the relationship between the child and his carer, and depends on the interaction between the two. Although the child has a propensity to form attachments, the nature of those attachments will depend on the parental environment to which he is exposed. The secure child learns to recognise and handle his own and other's emotions, develop social empathy, learn to behave morally, trust others, cope with stress and frustration and develop feelings of self-worth (Howe, 1998). The insecure child remains in a constant state of mild to severe anxiety. His attention is on his own emotional state which blocks him from processing external experiences, including learning about social relationships. There are two recognised patterns of insecure attachment behaviour. Insecure-ambivalence is associated with inconsistent, unreliable and emotionally neglectful parenting. The child needs to increase the demands made on the carer in order to get their love, interest and attention; a strategy which is intermittently successful. The ambivalence arises out of the child's simultaneous need for and anger with the carer. The second insecure pattern is that of insecure-avoidant. In this case the child is often rejected, his anxieties are rarely acknowledged and his emotional needs remain largely unmet. The child feels neither loved nor loveable. The child's strategy in this case is to try to retain physical proximity with the carer but to avoid emotional intimacy. If the child avoids making attachment approaches, he will not suffer their predictable rejection. In some cases where a child has no opportunities to develop selective attachments he is described as being 'non-attached' (Leiberman & Pawl, 1988). With no regular pattern of relationships to model himself and others on, the social

world makes little sense to him. The child will have no clear expectations of others or understanding of his own or other's emotional states. Children who are brought up in institutional care, where they have no opportunity to develop attachment relationships with any carer, are often classified as 'non-attached'.

These distinct patterns of attachment behaviour are all ways in which the child has attempted to handle the emotional anxiety generated by the parent's level of availability and responsiveness. As such these are adaptive responses to the psychological situation. It is only when the child comes out of that particular relationship and uses his experience and internal models to understand and relate to others that his behaviour and relationship style becomes maladaptive and dysfunctional.

Brazelton and Cramer (1991) proposed four major components of the early attachment relationship; synchrony, symmetry, contingency and entrainment. A mother's responsiveness and sensitivity, or synchronisation with the child, affects the child's attachment style and sense of security (Ainsworth et al, 1978). Clarke-Stewart (1973) found that children's overall competence was highly related to the maternal care that they received. This care was defined as the expression of affection, social stimulation, contingent responsiveness, acceptance of the child's behaviour, and appropriateness of the maternal behaviour for the child's age and ability. They emphasised that an adult familiar to the child is better attuned to the child, can communicate better with them and help them to understand and elaborate their experience, in a way that is specific to that individual child. As Rutter has stated, the key to a secure attachment is active and reciprocal interaction (Rutter,

1981). Living in an environment where a child's care is unpredictable, insensitive and unresponsive he will develop negative models of himself, others and relationships. Adverse relationship environments upset children's ability to develop social understanding of themselves, others and social situations, and their sense of self-esteem and self-efficacy is likely to be low (Schaffer, 1990). Others will be seen as less available, less responsive, untrustworthy, and a source of emotional pain. The more adverse a child's relationship history, the more insecure and anxious he will be in his current relationships, and the more negative and devalued and ineffective his view of his self will be.

Continuities and discontinuities

Waters and colleagues (Waters, Merrick, Albersheim, & Treboux, 1995) have recently provided evidence of the persistence of attachment styles across the life span. They carried out a follow-up of people whose attachment status was assessed at age one. At 20 years old the attachment status of these adults with respect to their parents was investigated. They found substantial continuity of attachment style across this period. Two-thirds of the securely attached and avoidant children maintained their style into early adulthood, but less than one half of ambivalently attached children maintained their predicted style. But it is important that these working models also allow for change. Changes in the environment are associated with changes in attachment behaviour (Vaughn & Egeland, 1979). Even children with very impoverished early attachment experiences can recover to build satisfactory attachment relationships later in life (Tizard & Hodges, 1989). Furthermore, if these models do persist across the life span and influence later relationships, we would expect the experience that adults had during their own

childhood to influence their parenting when they have babies of their own. There is now considerable evidence that these relationship styles are passed on from generation to generation (Fonagy, Steele & Steele, 1991; Van Ijzendoorn, 1992).

Mental models and attachment theory also therefore provides possibility of making links between early life experience and the development of psychological problems in later childhood and adult life. Whether these different attachment styles predict subsequent psychopathology has been the subject of much debate. The attachment patterns shown by young children have been found to predict certain types of behaviour at later stages in the child's development. 'Security' in infancy has been shown to relate to functioning including social adjustment, confidence, peer relations, and self-awareness during at least the first 10 years. Sroufe and Waters (1977) found security was related to autonomy and competence of functioning in toddlerhood. Lafreniere and Sroufe (1985) found a relationship with peer competence in 4-5 year olds, and Main, Kaplan and Cassidy (1985) found a relationship with attachment related behaviour in 6 year olds. The relationship patterns established in the first year of life therefore continue to have a powerful influence on children's subsequent behaviour and social adjustment.

Bowlby saw anxious attachment as a precursor of developmental difficulty and adult psychiatric illness, although there are no simple one-to-one links with environmental trauma and psychiatric illness due to the complexity of psychological development. However, the internalisation of disturbed early attachment patterns (in the form, say, of the internal working model) may influence subsequent relationships that makes such individuals more exposed and vulnerable to stress (Rutter, 1981). Pedder

(1982) argues that the greater the difficulty in integrating a good parental internal object, the greater the likelihood of severe pathology. However, the results of several studies of the relationship between attachment style at age one and subsequent psychopathology have been somewhat inconsistent, indicating the complexity of the issues involved (Oatley & Jenkins, 1996).

Historical overview of studies of institutional care

A vehicle for examining this question concerning the impact of early experiences, and the relative importance of early and late experiences on personal development arose in the form of a 'natural experiment'. This was where children, for one reason or another, were given up from the care of their biological parents and into institutional care. Here they remained until they were adopted, fostered, 'restored' to their biological parent, or until they left the institution, usually around 16 years of age.

Some of the earliest work in this area was carried out in the 40's by Goldfarb, whose evidence painted a gloomy picture of the future of those who had spent their early years in institutional care. Goldfarb conducted a series of studies of the long-term effects on children's functioning of a period spent in institutional care (on average the children had been in care from about 4 months to 3.3 years). He found that these children (assessed between ages 6 and 10 years) showed more behaviour problems, restlessness, distractibility, aggression, emotionally unresponsive and an inability to form deep emotional relationships. The peer relations of these children were also poor, they sought attention from adults and showed problems of adjustment at school (Goldfarb 1943a). Lowrey (1940) had conducted a similar study of children who had

spent a period in institutional care, and were later fostered, and had reached very similar conclusions.

Goldfarb also studied an older group, between 10 and 14 years old, who had been in care from about the age of 4 ½ months for three years before moving to foster homes (Goldfarb 1943b). He reported that these children were fearful and apprehensive, and less responsive to approval or sympathy; 87% were rated as emotionally 'removed' and withdrawn. 60% showed marked emotional difficulties and severe behaviour problems compared to only 13% of the controls. Goldfarb also reported that these ex-institutional children were significantly more likely to show unpopularity with peers, showed restless and hyperactive behaviour, had an inability to concentrate, poor school adjustment, excessive craving for affection, sensitivity and fearfulness. Goldfarb also found that both age at entry and length of stay in care were related to adjustment in adolescence such that those who entered care at an earlier age and spent on average longer in the institution had the poorer outcomes. However it should also be pointed out that not all those children who had spent time in care were maladjusted. Goldfarb saw the inability to form deep relationships as underlying many of the other difficulties and related this inability to their early years in care 'when strong anchors to specific adults were not established'. He reported that the personality distortions caused by early deprivation continued despite long subsequent family experience, and was therefore pessimistic about the possibilities for change or treatment.

In 1945 Spitz reviewed a number of studies in this area and reported the enormous contrast between children whose first year of life was spent in a foundling home in

conditions of extreme perceptual and social deprivations, and children who though institutionalised, were cared for by their mothers, and were the focus of their intense emotion and attention. The former group showed extreme developmental retardation, and abnormal reactions to strangers at around 9 months, while the later group developed normally (Spitz, 1945, in Hodges, 1991). Spitz argued that it was not the motor or perceptual deprivation itself, but isolation of the children from a mothering figure; that it was via the development of emotional interaction with such a figure that the child learned to play, to gain perceptual experience of the environment, and to explore it motorically.

On follow-up two years later, despite moving to a more stimulating setting at fifteen months of age, those children still in the institutions had fallen still further behind developmental norms, and their heights and weights were very much below normal. Morbidity and mortality were strikingly high (Spitz, 1946a). These infants were initially with their mothers or a wet nurse, and separated permanently after the third month, usually in the sixth. Spitz (1946b) compared them to infants studied in another setting where for some children the separation with the mother was followed by the onset of weepiness, followed by withdrawal, a decline in the developmental quotient among other symptoms; all of which were rapidly reversed when the mother was reunited with the child after two to three months of absence.

Spitz stated a number of conclusions of his studies: "1. That affective interchange is paramount, not only for the development of emotion itself in infants, but also for the maturation and the development of the child, both physical and behavioural. 2. That this affective interchange is provided by the reciprocity between the mother (or her

substitute) and the child. 3. That depriving the child of this interchange is a serious, and in extreme cases a dangerous handicap for its development in every sector of the personality" (Spitz, 1955).

This work on maternal deprivation had a large impact and was met with disbelief that the deprivation of mothering could produce enduring effects on an infant's psychological development. The emphasis on the mother-child interaction and reciprocity was an important step in the understanding of such relationships. In the wake of this work many states in the USA replaced institutional care for infants with foster-home care and some adoption agencies were beginning to permit adoption of infants as early as possible, rather than continuing their policy of prolonged monitoring for 'normal development' in an environment that was now seen as more likely to encourage abnormality than to safeguard against it (Stone, 1954).

In 1951 Bowlby wrote a report for the World Health Organisation reviewing the literature concerning the ill effects of institutional upbringing upon young children, titled 'Maternal care and Mental Health'. In this he stated "what is believed to be essential for mental health is that an infant and young child should experience a warm, intimate, and continuous relationship with his mother". 'Maternal deprivation', the absence of such a relationship, might involve any of the following alternatives:

a) lack of any opportunity forming an attachment to a mother figure during the first three years..
b) deprivation for a limited period – at least three months and probably more than six – during the first three or four years..

c) changes from one mother-figure to another during the same period...(Bowlby 1951)

Bowlby's arguments drew both from Goldfarb's work and his own studies of juvenile delinquents. His review of the research suggested that these different experiences had very similar consequences. These included cognitive effects, delayed language development, lowered IQ, impairment of the ability for abstract thinking, and also effects on personality and behaviour, a shallowness of emotional response, inability to make deep relationships with others, aggressiveness, distractibility and antisocial behaviour; in general an 'affectionless and psychopathic character' (Bowlby, 1951). Bowlby saw the inability to make deep emotional relationships as the central feature from which other difficulties arose.

Bowlby argued that the evidence suggested that children deprived of maternal care, especially if raised in an institution from under the age of seven, may be seriously affected in their physical, intellectual, emotional and social development, particularly evident when older in an impaired ability to form stable relationships. He stated that "prolonged separation of a child from his mother during the first five years of life stands foremost among the causes of delinquent character development" (Bowlby 1944; 1952). He concluded that children who spent the first 2-3 years institutional care before being fostered subsequently showed grave disabilities in their social relationships. 'Even good mothering is almost useless if delayed until after the age of 2 ½ years' (Bowlby, 1951). Bowlby proposed that such children had permanent damage to their capacity to establish deep lasting emotional meaningful relationships with anyone, be it in marriage, parenthood or friendship. Bowlby conceptualised the

long-term effects upon cognitive and emotional development, personality and behaviour as deriving from an inability to make deep emotional relationships. However, Bowlby also emphasised that outcomes varied depending on the nature of the child's experience, including the quality of institutional care, the age at which the child experienced the deprivation, the duration of the deprivation, what preceded it and what followed it.

These findings had strong implications for childcare, both within local authority care as well as in the home. This included implications for families where the parents want or need to work outside the home, and need to place the care of their child in someone else's hands. These findings also had policy implications for the advantages and drawbacks of group residential care, foster care and adoption in general, depending on which experiences are shown to be most beneficial or least damaging for the care of children of a variety of ages.

However, these studies were based on evidence from children's homes where the lack of a close loving care-giving relationship was comfounded by the effects of a lack of mental and physical stimulation (Rutter, 1972; 1981). The lack of this caring relationship was seen as the reason for the children's later difficulties, but the contribution of this alone was not isolated from the effects of deprivation of other elements of the young child's care. The question also remained as to the length of the effects of this deprivation.

Yarrow (1961) argued that the evidence for the long-term effects of separation was tenuous, based on a few studies where there was inadequate information about the

early history. Others argued that early experience does not have the extreme importance attributed to it and could be wholly or substantially overcome by subsequent experience. There was substantial evidence of recovery after damaging experiences of deprivation (O'Connor, 1956; Clarke & Clarke, 1954). Clark and Clarke (1976) reviewed many studies giving evidence against the proposal of irreversible effects. From these studies Clarke and Clarke presented evidence that (1) children who had suffered gross and extreme deprivation could improve and attain normal functioning given an appropriate environment (Davis, 1947; Koluchova, 1976); (2) even in cases where environmental change was less extreme, such as improvement in institutional care, or a move from poor institutional care to an adoptive home, poor functioning improved if the environment improved (Skeels, 1966; Dennis & Najarian, 1957; Dennis, 1973; Kadushin, 1970); and (3) positive effects of early experience, as well as negative ones, disappeared if the environment producing them altered. On the basis of this evidence Clarke et al.(Clarke & Clarke, 1976; Clarke, 1982) argued for the strong ability of children to recover given the right environment, given their finding that the difference in outcome was marginally due to early life experiences but massively due to the later prolonged period of security in permanent homes (with reference to Skeels' study (Skeels, 1966)). However much of the focus of this work was on cognitive rather than social functioning following adverse experiences.

More recent studies

One challenge to Bowlby's 'maternal deprivation' hypothesis took issue with the implication that early experience had particularly important and enduring effects, relative to later experience. Although there is considerable evidence that later good

experience can ameliorate outcome after early deprivation, there is also evidence to suggest that the latter can have persisting effects, especially when emotional and behavioural adjustment rather that cognitive development is the criterion. In the years since these arguments were first developed, new studies have been conducted to investigate the effects of disrupted care in childhood and adverse early experience, and the ability for recovery following these experiences. These studies have usually followed children who have spent time in institutional care, and who have then been adopted, fostered or 'restored' to their biological parent.

These studies can be used to address several different questions concerning the long-term effects of early adoption, late adoption, fostering, restoration, institutional care, disruption of many placements throughout childhood and exposure to family discord at different ages. But in general, these studies may all test the more general hypothesis concerning the impact of early experience on later outcome and the reversibility of such effects. There is also the important question concerning when outcome should be measured. The vast majority of the literature has been concerned with outcome in childhood and adolescence, with far fewer studies concerning outcome in adulthood. The outcome evidence for this area of study is presented briefly below. The literature concerning childhood outcome will be reviewed first, to be followed by a review of the available literature on adult outcomes.

Outcomes of early baby-adoptions

The first area of interest is the outcome for those who were given up into care as very young babies, and who were adopted into a new family before the age of 6 months. These children will not have experienced much if any discord or disruption of their

early relationships since it is only beyond the age of the third quarter of the first year that babies can begin to form selective attachments (Schaffer and Emerson, 1964; Yarrow, 1967). Whilst these children are without a history of neglect, abuse or family discord the psychological heritage that accompanies their status is the knowledge that their biological parents gave them away, for whatever reason, into care. As such they can be seen as a quasi-comparison group for looking at the effects of institutional care.

Overall the emotional, social and educational development of children adopted as babies is very good, and in some studies no differences have been detected between adopted and non-adopted children. In general they have been shown to do very well when compared to children born to biological parents of similar background, but slightly worse when compared to children raised in families with the same socio-economic characteristics of the adoptive parents (Howe, 1998). Children who have been adopted as babies have been shown to be at slightly higher risk of experiencing some problems in social and emotional development in childhood when compared to non-adopted children. These minor adjustment difficulties appear most pronounced during the school years including adolescence. Howe (1998) summarised the outcome literature in the following points:

1. Baby-adopted children are at developmental risk compared to non-adopted children
2. They are at lower risk than children from lone-parent/socio-economically disadvantaged families
3. The risks are highest in childhood and adolescence
4. They show slightly higher rates of over-dependent behaviour and anxiety to be

accepted by adults. They are also more likely to have lower self-esteem and more feelings of insecurity (Nemovicher, 1959).

5. Rates of social adjustment and 'externalising' problem behaviour are higher than 'internalising' problem behaviour. These include conduct and oppositional disorders, poor, hostile and aggressive relationships with peers and family members; acting out, ADD, offending, smoking and high alcohol use are also more common (Nemovicher, 1959). Seglow, Pringle & Wedge (1972) found 'hostility' common in boys rather than girls, but that 'anxiety for acceptance by other children' was found in both boys and girls.
6. Boys are more at risk than girls for poor social and emotional adjustment (Seglow et al, 1972; Brodzinsky, Schechter, Braff & Singer, 1984).
7. The majority fall within the normal range, with a small minority showing high levels of psychosocial problems, demonstrated by higher referrals to mental health services, 2-3 times higher than rates for non-adopted individuals from similar backgrounds. However the baby-adopted individuals on average were better adjusted than illegitimate children (Maughan & Pickles, 1990; Seglow et al, 1972).

A few studies have looked at the adult outcomes of baby-adoptions. Raynor (1980) studied adults who had been adopted as babies (under 6 months) finding that 70% were well adjusted, 25% were marginally adjusted, and 5% were unhappy and depressed and judged to be poorly adjusted. Howe's study of young adults, adopted as babies, found that the majority (76%) who had a trouble free adolescence developed into stable well-adjusted young adults (Howe, 1997). However 24% had exhibited at least one type of problem behaviour (stealing, aggression or lying) or

had attended a mental health clinic. In the most extreme cases the problem behaviour was severe resulting in being excluded from school or being in trouble with the police. Bohman & Sigvardsson's study of adult adoptees found that there were few differences evident between controls and baby-adopted individuals in social adjustment and behaviour. There was however a slight excess of mild emotional and behaviour problems (Bohman & Sigvardsson, 1990). Record searches for criminality and alcohol abuse found no differences between adoptees, 'restored' or controls at age 23 (Bohman& Sigvardsson, 1985). Bagley (1993) found that in adulthood baby-adoptees (from the National Child Development study) were in general well adjusted, although they showed an element of insecurity and anxiety. They did not show an excess of poor mental health, but were concentrated in the middle range, with mild mental health problems.

A study by Maughan and Pickles (1990) is one of the few studies looking at outcomes into adulthood. They studied individuals at 16 and 23 years of age, also as part of the NCD study. These individuals were either adopted (most of whom were placed before 3 months), legitimate (and living with their own families) or illegitimate (and living with their own families). At 16 years of age the illegitimate children were doing less well than the adopted, who were doing less well than the legitimate group. The adoptees did not differ from the legitimate group on antisocial or restlessness, but were more unhappy and demonstrated anxious behaviour. They were similar however to the illegitimate group in having more problems in their relationships with peers. At 23 years of age the illegitimate group showed the worst rates of social disturbance and difficulties. The adopted and legitimate group were much the same as each other in areas such as rates of teenage pregnancy and general

level of functioning. Adopted men however were finding the transition into adulthood more difficult, showing higher rates of job instability and of breakdown of intimate relationships. (However it should be noted that this last difference was non-significant).

Therefore in general, the overall rates of social and emotional differences are higher for adopted children than controls, but the majority fall within the normal range. A small minority of baby-adopted individuals do show high levels of psychological difficulties, particularly in adolescence. The rates of socio-emotional difficulties do tend to fall with age and by early adulthood adoptees are functioning much the same as non-adopted individuals (Howe, 1998). They may have slightly higher levels of anxiety in social relationships, with men experiencing slightly higher levels of vulnerability in peer and intimate relationships than adopted women, but about 80% grow into normally adjusted adults.

Outcomes of late adoptions

All those children who were placed after the age of six months are categorised in the research literature as 'late-adopted', despite this being somewhat discrepant with social work practice, where adoptions after age of 4 or 5 are considered as 'late'. In general, the literature on the socio-emotional development of late adopted children is not as positive as that of either baby-adopted children or matched controls of non-adopted children of families of similar socio-economic status as the adopters. However, it is much better than that of children raised in either institutions or social-economic adversity. It has also in general been found that the later a child is placed and the longer he spends in care, the more difficulties he will have, thus showing less

resilience and recovery than earlier placed children (Kadushin, 1970; Lambert, 1981). Some of the more common problem behaviours and personality traits unique to late-adopted children include insecurity and anxiety, attention-seeking and demanding behaviour, restlessness, poor concentration, unpopularity and relationship problems with peers, lying, hostility, anger and aggression, oppositional behaviour, and conduct disorders including criminal behaviour (Rushton, Treseder & Quinton, 1995). Bohman and Sigvardsson studied children who were fostered then adopted, compared to children adopted as babies and non-adopted children, and found evidence of poorer psycho-social adjustment in the later adopted children in adolescence, such as criminal behaviour, alcohol and drug use, aggressive behaviour and 'maladjustment' (Bohman & Sigvardsson, 1990). Howe (1997) reports 30% contact with police for late placed children as adults. There is a tendency towards 'externalising', oppositional and anti-social behaviours in this group, particularly in adolescence. The problems also seem most pronounced in the context of school and in relationships with peers (Mednick, CIBA foundation, 1996). Seglow (1972) also only found differences in social adjustment between early and late adopted within a school setting. These children's in general are often described as 'angry' and seem to act out their anger, getting into trouble with parents, teachers and the police. It appears to be the rejection, neglect and abuse prior to placement that appear to heavily impair children's ability to develop along normal social and emotional pathways (Howe, 1998). In 'Maternal Deprivation Reassessed' (Rutter, 1981) Rutter reported that anti-social behaviour in children is most strongly linked to family discord, rather than maternal absence itself. However, by no means do all late-adopted children show the full range of developmental problems; only a minority will manifest many of these behaviours, while the majority will develop only mild

versions, if they appear at all. There is also evidence of improved social adjustment in early adulthood, particularly in the context of continuing support from their parents (Howe, 1996b).

Howe (1998) reports that the evidence outlined above supports both the arguments concerning children's ability to overcome adversity and the arguments concerning the relative importance of early experiences and the lasting damage that these can bring. The literature shows that children's trajectories along developmental pathways can be changed by a good social environment, but some do pay at least some developmental price for suffering poor quality care in the first few years of life. There is evidence of some long-term impact on personality and social development, but that good levels of recovery are possible if the children are placed in a positive restorative social environment.

Revision of Bowlby's position

As can be seen by the brief review above there is much evidence that points both at lasting effects of disrupted early attachments and significant recovery from such adverse early experiences. This evidence and that of his own later study in 1956 led to Bowlby revising his original position concerning the prevalence of severe damage resulting from maternal deprivation as well as the irreversability of such damage. He acknowledged that 'outcomes are more varied than previously stated' and that the damaging results had sometimes been overstated (Bowlby, 1988). He stated that brief separations were not usually damaging in the long-term, and acute separation distress is also probably less damaging and more complex than Bowlby had originally allowed. The effects of the separation depend on the nature of the relationship

between the mother and child, and depends therefore on the individual meaning and context in which it takes place. Following this Bowlby proposed a view of development as influenced by early experience but not determined by it, if later life offers compensatory or transformative experiences (Bowlby, 1988).

Evidence of continuities in normal development

Follow-ups like those described above aim to track a child's difficulties and development through childhood and towards adulthood. Questions arise as to the persistence of the effects of early experience and the continuity of the resulting difficulties across this time period. As we have already noted researchers have demonstrated significant continuity of the different attachment behaviour patterns over time. Certainly stability over a number of years in childhood, and even substantial cross-generational transmission of attachment style has been demonstrated (Fonagy et al., 1991). When we consider other behaviours we have to bear in mind the developmental stage of the child and the appropriateness of their behaviour in this context, since the behaviours shown by a child at one age may change in their expression when the child is older. However, continuities in general in children who show difficulties in their childhood have been quite extensively studied.

Thomas and Chess (1984) found significant plasticity in development across childhood, finding that the outcome for early behavioural disorder is generally favourable although children showing problems early on do carry a greater risk of problems in later years. However they felt that prediction of the developmental course was very hard since there are so many varied influences throughout

development; a sentiment supported by Clarke & Clarke (1996). Richman, Stevenson & Graham (1982) demonstrated quite strong continuity of behaviour problems during childhood, but that the continuity varies according to the type of behavioural disturbance.

Fischer, Rolf, Hasazi & Cummings (1984) reported differences in the continuity of childhood internalising problems (such as inhibition, withdrawal or anxiety) and externalising problems (such as aggression, hostility and acting out against the environment or society). They found that the externalising disorders were more stable for both sexes than the internalising disorders (confirmed by Verhulst, Koor & Berden, 1990, and Esser, 1990). However they do emphasise that although continuities were present, they were modest and discontinuities were the norm, demonstrating the impressive flexibility and plasticity of young children. In general externalising disorders show much higher continuity for boys than for girls, and internalising disorders show higher continuity for girls than for boys (McGee, Seehan, Williams, Partridge, Silver, & Kelly, 1990). Boys also tend to respond to stress with oppositional behaviour rather than distress (Rutter, 1990b), and conduct disorder in childhood has been found to predispose to antisocial behaviour in men, and non-antisocial behaviour in women (Rutter, 1987c). Some evidence is found for a small percentage of girls with externalising problems in childhood being more likely to change and become depressed in adulthood (Quinton, Rutter & Gulliver, 1990; Robins, 1986). Magnusson (1988) found that boys who showed a combination of aggression, hyperactivity and poor peer relationships in childhood were five times more likely than children without such problems to become criminals or to abuse alcohol as adults. Stability in aggression is almost as high as the stability of IQ

(Olweus, 1979), a finding confirmed by Lefkowitz and colleagues (1977) who found significant stability of excessive aggression between ages eight and nineteen, for both girls and boys, although the effect was far more common in boys. Huesmann, Eron, Lefkowitz, & Walder (1984) carried out a follow-up over 22 years and found that boys and girls who were nominated by their peers at age eight as particularly aggressive were also the most aggressive 30-year-olds. They had more criminal convictions, were aggressive towards their children and were more abusive to their spouses. Parker and Asher (1987) confirmed associations between poor peer relationships in childhood and such varied later difficulties as dropping out of school, criminality and adult psychopathology. Robins (1978) found evidence for continuities over this period, with 50% of children with an externalising disorder in childhood going on to show personality disorder as adults. In general, boys are more likely than girls to show disturbance following at least some types of psychosocial adversity (Rutter, 1982; Zaslow & Hayes, 1986, in Rutter et al, 1990).

The presence of such continuities provides some evidence for the presence of a mechanism which mediates these continuities across different ages. The internal working model is one possible way in which these links operate across time. However, there is also good evidence of discontinuities across time, demonstrating that future outcome is not determined solely by previous experience, but can be influenced by many factors operating in the interim. These continuities and discontinuities demonstrate how an individual's behaviour is influenced by past experience but is at the same time changeable by new experiences.

Outcomes in adulthood

When examining at the effects of early experience, we have to decide at which point to measure outcomes. Many of the studies listed above measure outcome during childhood, some in adolescence, whilst few follow up these children into adult life. We have already seen the evidence of some disturbance in childhood and adolescence for those who had experienced some form of early institutional care, as well as the evidence that some come through these early adverse experiences apparently unscathed. What the outcomes are for these individuals in adulthood has been the focus of only a few studies, but is an important indicator of the presence of long-term effects. A few studies, only some of which were prospective, have looked at adult outcome of early institutional care.

The transition into adulthood includes changes in the social roles and relationships, with new demands and responsibilities. This involves disengagement from childhood and adolescent identities, and exploration and commitment to new adult roles and relationships. Key transitional events of this period include completing education, choosing and pursuing a career, leaving home and moving to independent living, embarking upon marriage or committed relationships, and starting a family of one's own. The decisions made at this stage may have a major influence on their life course, opportunities and satisfaction in years to come, in domains such as work, personal relationships and independence from the family of origin. This can be a time of high stress placing high demands on the individual's resources, and what happens at this time will influence whether the individual makes a more or less successful negotiation of this transition, thereby maintaining earlier vulnerabilities or protecting against them.

Only a handful of studies have addressed the issue of the adult outcomes of early institutional care. These include studies by Heston (Heston, Denny & Pauly, 1966), Triseliotis (Triseliotis & Russell, 1984) and a series of studies by Rutter and Quinton and colleagues (Rutter, Quinton and Hill, 1990; Quinton, Rutter & Liddle, 1984; Quinton & Rutter, 1988; Rutter & Quinton, 1984; Dowdney, Skuse, Rutter, Quinton & Mazrek, 1985). The findings of these studies will be discussed below.

Heston and colleagues (Heston et al., 1966) conducted a study of children who were placed in foundling homes at birth and spent between 3 months and 5 or more years there, with an average stay of 2 years. These children were seen as adults aged between 21 and 50. It was found that they did not differ from controls on personality, mental health or social adjustment measures. Heston et al. saw the factors relating to the reversal of the effects of institutional care by the time of adulthood as 'the corrective experience of family living, which for some was brought about by their own marriage' (Heston et al., 1966). Through these relationships it is thought that they can form new adaptive models of themselves and others, by adjusting their internal working models. Heston et al. argue that this study shows that children and young adults who find love show a remarkable ability to recover form their early institutional experiences of attachment failure.

Rutter, Quinton and Hill (1990) conducted a prospective study of a group of men and women, aged between 21 and 27, who had been reared in residential Children's Homes in the 1960's, due to parenting breakdown. The majority of the 'ex-care' sample had experienced prolonged periods of institutional care from an early age. A large proportion of them had been admitted before the age of 2 years, with the rest

being admitted before age 5. The vast majority of them had spent at least 4 years in institutional care, around half of them remained there until the age of 16 years, whilst many others had returned to their families.

Both institutional men and women showed more criminality and personality disorder than comparisons, the men showing higher rates than the women. Both institutional men and women showed more deviant family functioning than the comparison group, with the men more deviant than the women, although fewer of the men had their children in care compared with the women. The institutional women were more likely to marry deviant men than the comparison group women. The institutional women were more likely to be teenage parents that either the comparison group or the institutional men. In terms of overall social outcome (made up of love relationships, marriage, friendships, criminality, psychiatric disorder, work and autonomy of living conditions) the institutional group faired worse than the comparison group, with institutional men and women scoring similarly. In both sexes, about one fifth of the ex-care group showed good functioning and about a third showed poor functioning. For those admitted before age 2 who remained in care until 16 or older, 44% of males and 45% of females showed poor social functioning at follow-up.

A study looking at the adult outcomes for ex-institutional women alone (Quinton, Rutter & Liddle, 1984; Quinton & Rutter, 1988; Rutter & Quinton, 1984), found that 33 % had a psychiatric disorder, compared to 5% of non-institutionalised women. The ex-care women showed poorer adjustment on all the early adult measures of outcome including general psychosocial functioning and quality of marital

relationships. An institutional upbringing showed a strong association with marked marital problems and a strong association with a breakdown in parenting, leading to offspring being taken into care. But in general there were very heterogeneous outcomes. Some girls followed a path of continuing difficulties which themselves lead to other adversities which put them more at risk of experiencing further difficulties. Others were able to break this chain showing discontinuities with previous difficulties. The question arose as to what factors were involved in the individual differences in the women's response to stress, adversity and disadvantage? What were the risk and protective factors operating into adult life? They found that the most powerful protective mechanisms to counter the ill effects of the adversities in childhood was the emotional support from a non-deviant spouse, within a close, confiding and harmonious relationship. They found that positive experiences at school could do much to counter the ill effects of adverse experiences. The proposed crucial mediating variable here was the women's concept of being able to take action to control what happened to her, such as using 'planning' in her choice of marriage partner and in her choice of work or career. They also found an interaction by which the beneficial effects were evident only in the presence of risk, for example, both positive school experiences and the exercise of planning had little effect in the control group, but had marked effect in the institution reared group.

When considering what aspect of the environmental adversities constituted the greatest risk for these men and women, Quinton et al. found that marked disruptions in parenting in the first 2 years of life, with more than one short term separation from parents, persistent parental and family discord, or admission into long-term care, were associated with worse outcome in adult life.

Rutter et al. (1990) in their study of both the men and women found that childhood deviance played some role as a mediating variable leading to poor social outcome in adult life. The continuities from childhood behaviour difficulties were considerably more marked in men than in women. This is in keeping with the evidence that conduct disorder in childhood predisposes to personality disorder in adult life (Robins, 1978; Rutter & Giller, 1983). In both men and women, the presence of a supportive spouse had the strongest protective effect. They also found that 'planning' in terms of work, marriage and partner was protective in both men and women, though more strongly in women, but only in the face of serious adversity. Positive school experiences also had a protective effect, but this was the case only for the ex-care group and not for the comparisons.

A study by Dowdney and colleagues (Dowdney, Skuse, Rutter, Quinton & Mazrek, 1985) looked in particular at the parental competence of these women with their own children. In general the heterogeneity of outcome for these women was striking. The majority were both affectionate with their children and actively involved with them, but many of these women were found to show significant problems parenting, being insensitive, lacking in warmth, harsher with their children and showing inconsistent or ineffective control. Four times as many ex-care mothers were regarded as having 'poor' parenting style compared to a non-care control group. However, nearly one third of the ex-care women were assessed as having a 'good' parental style. These women were differentiated from the others by having a supportive spouse in whom they could confide and on whom they could count for help.

The impact of early institutional experience on the parenting skills of a group of ex-care women was also investigated by Wolkind and Kruk (1985). The sample consisted of three groups of women; those who had been separated from their family through admission into care, those who had experienced disruption through brief periods of separation from their family in childhood, and those brought up within their family with no disruption (control group). Overall the in-care group gave the least favourable picture, while the disrupted group performed much closer to the control group on most of the measures. 10% of the control group were unmarried, compared to 63% in the other two groups. 22% of the control group were pregnant during their teens, compared to 51% for the disrupted group and 70% for the in-care group. The parenting qualities of the in-care group were poorest as shown by their interaction with their babies; there was less holding when feeding, less maternal stimulation (vocalisations or physical) and least sensitivity to the needs of the baby. At later ages this in-care group showed higher incidence of behaviour problems and greater frequency of admission to hospital. As adults the in-care group were more likely to have poor marriages and to lack support from others. However it was felt that the in-care group institutional experience was just one episode in a generally disharmonious and unsettled childhood, which itself carries high psychosocial risk. Evidence for the transmission of parental attachment style to their children has also been found in a study by Fonagy, Steele, & Steele (1991), as has evidence for substantial continuity of attachment status over the period from the age of one to the age of 20 in early adulthood (Waters and colleagues, 1995).

Harris, Brown & Bifulco (1986) found that a lack of adequate parental care in general following the loss of a parent in childhood was a crucial factor in creating

later risk for psychiatric disorder in their sample of women. They proposed that this lack of care affected both the inner and outer resources of the women involved. It showed links with a sense of helplessness and low self-esteem, as well as with greater environmental adversity. They were more likely to experience a premarital pregnancy, which increased the likelihood of an early marriage and lack of marital support, increasing their vulnerability to depression when facing acute stressors in adult life. Therefore an early lack of care in childhood appeared to predispose to increased risks of social adversity in adult life, which in turn was associated with an increased rate of clinical depression.

Overall, these studies showed a strong effect on adult outcome of adverse experiences in childhood, and in particular a disrupted early upbringing, whilst at the same time demonstrating considerable heterogeneity. This heterogeneity appeared to be associated with certain later experiences, such as marital support, but which only exerted it's protective effect in the presence of adversity. This indicates that later experiences could modify the effects of adversities experienced in childhood. However, it appears that these individuals may still retain an underlying vulnerability which is not apparent in normal conditions. This vulnerability can become evident in response to stress as evidenced by Gaensbauer and Harmon (1982), Sroufe and Rutter (1984), and Quinton and Rutter (1988) where individuals reared in institutions had similar outcomes to comparisons when their social circumstances were good, but more of them developed disorders when circumstances were adverse.

Triseliotis and Russell carried out a retrospective study of two groups of young adults in their mid-twenties (Triseliotis & Russell, 1984). The first group had spent

some time in care before being adopted between the ages of two and 8 years of age, and the second group had spent the major part of their childhood in institutional care and between foster homes. This study had no baseline control with whom to compare the two experimental groups.

Their retrospective reports suggested that the ex-institutional group, when compared to the adopted group, had experienced more emotional and behaviour problems in childhood, and had found making friends with peers at school difficult. In adulthood, although the adopted and residential groups showed the same levels of police contact and court appearances, the residential care group reappeared in court more often. They also showed more drinking, were more often referred for psychiatric help, and reported more emotional and behavioural problems.

Despite experiencing less problems of adjustment than the in-care group, the adopted group still showed some evidence of the enduring effects of their early experiences. 40% of the adopted group said they were free of any of nine categories of handicaps, compared to 10% of the in-care group, or alternatively, 25% of the adopted group had three or more handicaps, compared to 60% of the in-care group. For the adopted group, 11% had referrals to psychiatric services compared to 25% of the in-care group. In terms of their quality of relationships in adult life, half of both groups had married at least once, with the in-care group having married on average younger. 18% of the in-care group had divorced or separated and of those still married 68% were satisfied with their relationship. Of the adopted group, 24% were divorced or living apart, and of those still married or living together nearly all were satisfied. Into adulthood the adopted group's relationships tended to improve over time,

although a minority of the in-care group continued to experience difficulties in intimate dealings with others. In their relationships with their own children, the adopted group reported relating well, but the in-care group had experienced some anxieties about their parenting role, especially in the first year or so.

In terms of social and personal adjustment, 16% of the adopted group were classified as 'disturbed' compared to 48% of the in-care group. A quarter of the adopted group were experiencing serious material, social and personal problems. Compared to this three fifths of the in-care group were experiencing serious material, social and personal problems. In the in-care group the single factor which pointed to some relative social and personal stability in their current lives was the extent to which they felt that they had experienced caring and good relationships with the staff in residential care.

Triseliotis et al. emphasised the positive adjustment that many of their sample showed in adulthood. Their evidence suggests that the opportunity to form good, stable and close relationships in adopted families helped reverse the damage of earlier setbacks, since the rate of psychosocial problems both in childhood and adulthood were more prevalent the in-care group than the adopted groups, whose rates were themselves were judged to be above that of the general population. However the lack of a control group in this study makes comparisons with the normal population difficult to make.

These studies indicate that early institutional care puts children at risk of poor psycho-social outcomes in adulthood, but that the positive experiences such as the

development of a good relationship at some time in childhood or adulthood, either within the institution, the adoptive family or in marriage, were associated with better outcomes, thereby acting as protection against the effects of their early adverse experiences.

Models of mechanisms for long-term effects of early experiences

What we have been concerned with here are the long-term outcomes of early adverse experiences. We have seen that there is great variability in responses to this early experience, some showing strong continuities across this period resulting in poor adult outcomes, while others show marked discontinuities giving rise to good outcomes in adulthood. This raises the question of what accounts for such variability? Some individuals appear to be protected from the impact of adverse experiences, showing resilience, whereas others appear at risk to the influence of adverse experiences, showing vulnerability. What factors or processes make these men and women vulnerable or resilient to stress? Some factors may act directly to make some at risk to the consequences of this stress, while other act indirectly via a chain of indirect links across time, as a combination of complex factors which together render that individual vulnerable to certain types of stress (Rutter, 1989).

Vulnerability or resistance to stress is not a unitary characteristic and is never absolute but will vary with age, from one person to another, and from one stress agent to another. The same factor could show risk relationships with one outcome but protective associations with others. Adversities that constitute risk at one period of development may have protective effects at later stages. The same individual may be resilient to some stresses and yet vulnerable to others (Maughan & Champion,

1989). Some factors show their protective or risk function for an individual only at times of particular stress (for example, Brown and Harris (1978) link poor care in childhood to risk of depression in adulthood when faced with adversity), and other factors have been found not to have this same protective or risk function for those who are not in the 'at risk' group (Rutter et al, 1990).

Often cycles develop where for instance an individual experiences adversity, which predisposes him to a poor outcome, which puts him at further risk, amplifying the social risk and a cycle of disadvantage is perpetuated. For example, Harris and Bifulco's (1991) study shows that cycles of disadvantage including loss, poor care, pre-marital pregnancy, poor choice of partner lead to further stress. Cycles of advantage can also develop where an individual experiences a positive event which increase the likelihood of further advantage. What is of interest is how these cycles are sometimes broken and discontinuities are found between early experience and later outcome.

Many different factors and processes have been found to impact on adult outcome following early adversity. These are either properties of the external environment, such as family stresses, school achievements, peer influences, marital relationship, family and work opportunities, or they are individual, internal characteristics, such as sex, temperament, cognitive style. It should be noted that these two domains are connected by a reciprocal interaction and cannot be considered in isolation alone.

Rutter (1995a) outlines six main factors contributing towards individual variation in matters of risk, resilience and recovery:

1. personal characteristics, including temperament
2. in part from previous experience
3. in part from the ways in which the individual copes with negative experiences
4. in part through indirect chain effects stemming from experience and how it was dealt with
5. in part by subsequent experiences
6. in part by the way people cognitively process or think about and see themselves as individuals.

Those factors often found to contribute towards the vulnerability of an individual to stress include unsupportive spouse, exposure to family discord, past experience of institutional care or separations in childhood, early pregnancy, early termination of education, poor self-esteem, poor coping strategies etc. (Rutter et al, 1990). Whereas those factors usually seen as promoting resilience include resources such as a supportive spouse, good school experience, good parent-child relationship, harmonious family life, good social support, good coping strategies etc. (Elder, 1979; 1986; Maughan & Champion, 1989).

Garmezy (1985) (in Rutter, 1990) outlines three broad sets of variables that operate as protective factors: first, those personality features such as autonomy, self-esteem, or positive social orientation. Second, family cohesion and warmth and absence of discord. Third, the availability of external support systems that encourage and reinforce the coping efforts of the individual. Rutter (1990) reworked these factors to form the following five predictors of protective processes:

1. Reduction of the personal impact of the risk experience

2. Reduction of negative chain reactions
3. Those that promote self-esteem and self-efficacy
4. Those that open up positive opportunities
5. The positive cognitive processing of negative experiences.

Each of these, Rutter advocates, predicts resilience, and includes how people perceive, conceive and respond to stress in their environment.

Childhood adversities appear both to elevate risks of continued environmental stressors and to increase inner vulnerability to them, whereas positive experiences may have their impact either directly on the external environment or else by means of an internal mechanism such as an individuals sense of self-esteem or self-efficacy (Schaffer, 1990; Rutter, 1987) or via the internal working model of relationships (Bowlby, 1951). Brown and Harris (1978) argue that self-esteem has an important role in buffering against stress, playing a key role in the prevention or onset of mental illness. They link self-esteem and the internal working model by suggesting that self-esteem is the product of a good internal object (arising out of the responsiveness of the mother-figure), together with a feeling of competence and mastery. These internal mechanisms are able to provide the vehicle for the continuity or discontinuity across the life span. The relative importance of inner and outer routes in mediating the effects of both risk and protective processes is not clear and needs further clarification by future research.

Werner and Smith's longitudinal study of children at 2, 10 and 18 years of age (Werner and Smith, 1982) found that overall boys tended to be less resilient that girls in the face of stress. But the factors associated with the child's response to stress

changed with age; in infancy these primarily involved health and temperament (skilled in social interaction and independence), but in mid-childhood these factors took an intra-personal form, concerning in particular self-esteem, as well as the social environment of the family.

Barron and Earls (1984) found that poor outcome was best accounted for by a combination of inflexible temperament, poor parent-child relationship and high family stress. Block, Block & Morrison (1981) found that boys were at more risk from parental disagreement than girls. Other factors shown to protect children from disorder in stressful circumstances include close relationships with siblings (Jenkins, 1992), involved grandparents (Jenkins & Smith, 1990; Werner and Smith, 1982 see above), or good experiences of achievement at school (Quinton, Rutter & Liddle, 1984). As found in several studies, the effect of a particular protective factor, as for example the presence of a grandparent, only became apparent in the presence of another life stressor; the absence of a grandparent was not a predictor of psychopathology amongst children who did not experience stress. This is also the case for the protective effect of the support of a non-deviant spouse in the Rutter studies of ex-care adults (Rutter et al., 1990).

Close relationships have been found to be the environmental factor most closely associated with good or poor outcome. This includes parental relationships, and emotional support both in and outside of the family, before or after placement, which show empathy, acceptance, consistency and reliability in the care and support that these relationships provide.

What has emerged from the evidence on adoption is that adopted status sometimes acts as a risk factor thought to be due to the child's sense of being 'unwanted' and 'unloveable' in the eyes of their biological parents, but it can also act as a protective experience against experiential risk. The element of adoption that provides this protection is good quality parent-child relationships. A harmonious and supportive family environment affords the best protection against a wide range of stresses, as well as serving to attenuate the effects of early disadvantage. It is hypothesised that these close relationships can influence the internal working models of relationships as well as affecting the self-image, self-understanding, self-esteem and self-efficacy. (Howe, 1998). These relationships provide the opportunity for these individuals to see themselves as loveable, socially effective and able to control what happens to them. In this way the initial dysfunctional models of the self and others can be modified as they experience themselves in new relationships, and they will experience increases in their sense of self-esteem and self-efficacy. In this way the chain of adversity can be broken and an important discontinuity introduced.

Social relationships, particularly with peers, play an important role in protecting the individual from the effects of a stressor. The importance of peer relationships increases relative to family relationships as the child grows older. This shift to the development of close ties with friends appears to play an important part in protecting the individual against the psychological effects of stress (Monck, 1991). The current research suggests that the provision of support is generally positive (Cohen & Wills, 1985), and that emotional support is particularly protective for adult women (Brown & Harris, 1978; Brown et al., 1986). Intimacy and close ties, particularly with family members, may be less crucial protection for men (Billings & Moos, 1982). Men may

be more protected by the support functions of social companionship and help and support in task accomplishment (Cohen & Wills, 1985). There is also considerable evidence that the individual's perception of the adequacy of key relationships is a more powerful predictor of mental health than the more objective measure of availability of relationships (Barrera, 1981; Henderson et al., 1981).

There is evidence to suggest that some childhood adversities may actually strengthen an individuals coping skills (Emery, 1979; 1986). Elder (1979) commented on the importance of two adult coping strategies that appeared to represent a positive legacy of childhood hardship: first, the use of 'positive comparison' whereby difficulties in adult life still compared favourably with the extreme hardship experienced in childhood; and second, 'selective ignoring', the process of finding good in adversity and hence being able to manage it more effectively. These may have contributed to the good outcomes shown by some of those who had experienced severe difficulties in childhood.

Patterns of 'non-attachment'

The children studied in many of the studies mentioned above have a wide range of varied caring experiences in their early years. There are many factors which may have had an influence on their outcomes, and which will distinguish one group from another. For example, the age at which a child enters institutional care and the length of time spent in care, the quality of care received in care, and the age at which he leaves the institution, the environment that the child was exposed to before entering care, including how much time the child has spent in the family home before entry into care, the amount of family discord experienced before the child enters care, and

the environment that the child moves to following their time in institutional care. In the literature however, these different conditions are often considered together, which makes it difficult to measure the developmental impact of the difference factors alone. In general there are four main categories of early experience to consider:

1 Children who were given up into care very soon after their birth and adopted into a new family within six months. This would entail minimal disruption of the development of the early relationship between the baby and parents, given that selective attachments are not thought to develop until after the third quarter of the first year (Schaffer and Emerson, 1964, Yarrow, 1967).

2 Children who were given up into care soon after birth and were fostered over a period of time before being adopted. This situation would allow for the development of an early relationship between the child and foster parents, but would also involve disruption of these early bonds as new relationships are made and old ones broken. Finally a permanent bond can develop between the child and his new adoptive parents.

3 Children who spent their early months and years within their family and were taken into care at a later date, because of abuse, neglect or family/parenting breakdown. Following some time in care they would then either return to their family, remain in care, or be adopted or fostered. In this scenario the child would develop early relationships with his parents which would then be interrupted and followed by substantial disruption of their relationships with their carers over an extended period.

4 Children who were given up into care soon after birth and spent the next months or years in institutional care, without a long-term consistent caregiver, until being

later adopted or 'restored' to their biological parent. In this situation the child is not exposed to family discord, but neither does he have any opportunity to develop any early attachment relationships with any one of his carers, until he is adopted (or 'restored' to his biological parent) when he is a much older child. This constitutes privation rather than deprivation (as in cases 2 and 3) since no maternal figure had been experienced before being withdrawn.

The study presented here is particularly concerned with the fourth group listed above. These children have not experienced poor or disrupted early attachment relationships but rather have had no opportunity to develop an attachment relationship organised around a particular carer, until they are much older. It is an area of current debate as to the child's attachment status at this point. Some have described these children as 'non-attached' (Leiberman & Pawl, 1988), or that their potential to develop attachment relationships is 'put on ice' until they new families when they leave the institution. However, Hodges (1996) argues that this suggests that the attachment system of the child is inactive while he is in the institution. However, as Bowlby described, the attachment system is always active, and refers not to the presence of a warm bond between child and carer, but rather an organised and predictable pattern of behaviour, reflecting an internalised regulatory pattern based on expectations derived from their history of child-carer interactions. This behaviour evolves to be adaptive in the current environment, matching the reliability and availability of the caring environment, but may become maladaptive when this environment changes.

In the case of ex-institutional children, this 'other' is not one single person, but is rather a *style of care* present in the institutions. Their care experience is of

discontinuity, emotional detachment, inaccessibility, unresponsiveness, inconsistency and intrusiveness. In this way the interactions with the care-staff resembles the interactions between mothers and infants assessed at one year showing 'insecure-anxious-avoidant/ambivalent' patterns of attachment relationship (Hodges, 1996; Bretherton, 1987). Early experiences such as these could be expected to result in an internal model of the 'common denominator' of carers, along the lines of 'carers are unreliable, transient, arbitrary figures who are unlikely to provide affection or close attention and whose attention has to be very actively and repeatedly claimed, in competition with other children' (Hodges, 1996). In this way the child does show organised attachment behaviour while in the institutions, which is focused around a style of care rather than any one individual. Whether the child experiences a continuation or discontinuation of this style of care-giving once they enter the family environment is dependent on that later environment. Relatively little information exists on the consequences of this type of early experience. Whether they are later able to adjust their internalised model of the availability and reliability of their carer, in the light of new experience is one of the issues central to the studies described below.

Those who children who have had this type of early attachment history have been described as having a gloomy outcome. Howe (1998) describes these children as having relationships that are based solely on need, with no preferences for specific people. He also reports that they have difficulties controlling their impulses and aggression, are thoughtless and unfocused. He describes these children as lacking social sensitivity, and therefore missing the subtleties and nuances of social interaction. Cadoret (1990) reports that such children have a greater risk of poor

mental health, such as depression, in adulthood. The children in Cadoret's study were reported to handle social relationships superficially, without reciprocity or mutuality, and little discrimination between different people. Other people were valued only in so far as they meet basic needs, and relationships were seen solely as a means to an end, giving little long-term satisfaction. Such individuals show no sense of loss or anxiety when their relationships breakdown, and tend to be impulsive showing anger and aggression. Howe (1998) reports that in late adolescence and early adulthood many of these individuals have alcohol problems, leave home early and have a poor employment record, are easily upset or frustrated, and their adult relationships are somewhat volatile. However, despite these difficulties Howe reports that steady developmental recovery and maturation are evident, and that within the context of a loving and warm family relationships these individuals can gradually adopt more secure patterns of attachment (Howe, 1998). While the evidence for these claims are not always made clear, in general it is thought that the early lack of attachment relationships has serious implications for the individual's future relationships, psychological adjustment and mental health.

The Tizard longitudinal studies

There is also a very important series of studies which contributes much of the evidence to date on the long-term outcomes of early institutional care. This is the only prospective and longitudinal study which has examined the long-term effects of the lack of opportunities to develop close attachment relationships in the early years of childhood, with follow-ups spanning from the age of 2 to 16 years.

These children were from a cohort who were first selected for a study in 1970 by Tizard and Joseph when they were two years of age. They were followed-up in further studies including Tizard and Tizard (1971), Tizard and Rees (1974), (1975), when the children were 4 ½ years old, Tizard (1977), Tizard and Hodges (1978) when the children were aged eight, and Hodges and Tizard (1989a) and (1989b) when the children were 16 years of age. All of these children had entered care as babies before the age of 4 months and stayed there until they were at least 22 months old. They then remained in care until they were either adopted or 'restored' to their biological parent, which on average occurred between the ages of 2 and 7 years.

All these studies aimed to follow the development of these children, and monitor their adjustment over the periods of early and middle childhood and adolescence. These follow-ups studied the long-term effects of these children's unusual early experience. The early stages of this study were concerned both with the intellectual and psycho-social development of these children. The present study however is concerned only with the latter, given that the previous studies have already demonstrated the lack of effect of early institutional care on IQ.

The unusual nature of this early experience will be described below, followed by brief summaries of the findings concerning the children's developmental progress at ages 2, 4 ½, 8 and 16 years (as summarised in Hodges, 1991).

The nursery environment

Unlike many institutions before the 1970's the nurseries where many of the children in this study lived showed a high standard of physical care and stimulation for the

children. The children were actively cared for by the staff. Typically in the first year the babies were fed on the nurse's lap, who would be encouraged to talk and play with the children at feeding times. Toys were plentiful. From about 4 months the babies spent most of their waking time in playpens or on the floor with toys. At about a year the child was gradually introduced into a small mixed-age "family group" containing about six children up to about five years old. Each group had its own home-like rooms.

Although the daily routine was fairly rigid, the children had access to the garden, plenty of books and play materials, pet animals and were read to every day. Trips and walks outside were encouraged. The children then attended the nursery's own playgroup until they reached school age. Staffing levels were generous with one or two childcare staff with a group of six children at any one time. Staff were either qualified nursery nurses or part-way through their training as nursery nurses.

But what was noticeable about this residential care was the absence of close and long-term relationships between staff and children. The nurseries were used as training institutions for nursery nurses, and though this meant that they were well staffed, it also meant there was very little continuity of care. By age two an average of 24 different caregivers had looked after the children for at least a week, and by the age of 4 the average was 50. Even within the course of a single 5-day period, Tizard and Tizard (1971) found that between four and eleven staff (average 6.3) had worked with each group, excluding nursery school and night staff.

Caregiving was also emotionally detached, staff talked to children rarely expressing pleasure or affection (2% of the time), or displeasure and anger (3%) and affectionate physical contact was just as rare (1.3%), (Tizard & Tizard, 1971). Further there was an explicit policy against allowing too close and attachment to develop between children and the staff who cared for them. Specific attachments tended to disrupt the smooth running of the group and it was felt to be unfair both to the child and staff to allow attachments to arise only to be broken when the staff inevitably moved on.

There were two main features of this sample which were important in the development and rationale of the longitudinal study. First, these children had experienced high levels of care and stimulation in the residential nurseries, unlike all the samples studied previously, giving the opportunity to look at the effects of the lack of longer-term attachment relationships alone, without being confounded by the effects of more general privation. And second, the vast majority of these children subsequently left the institution, producing a discontinuity in the environment, giving the opportunity to look at the reversibility and long-term effects of their early experience, addressing the issue of the relative importance of early and later experience.

Development at two years old

Tizard and Joseph (1970) studied a group of 2-year-old children in 22 such nurseries. The nursery children did not show gross behavioural disturbance. Much of their development differed little from children who had been brought up at home, although they were less likely to have achieved bowel and bladder control and less likely to show a sleep disturbance. However their relationships with caregivers and with

strangers were most unusual compared to the family-reared 2-year-olds. The institution children were diffusely affectionate towards a large number of people – virtually anyone familiar. At the same time they were shy and wary of strangers, reflecting their general lack of experience with adults outside the nursery staff. In contrast the family reared children showed attachment behaviour to a small number of people (an average of four), and their relative ease with strangers reflected their experience with a much wider social network. They differed too in the apparent security of their attachment behaviour. Almost all the nursery children would cry when a carer left the room, and would run to be picked up when they came in whereas two-thirds of the family children did not show such behaviour.

Subsequently, between ages of approximately 2 and 7, most of the children left the institutions and were placed in families. Most were adopted and some were 'restored' to their biological parent. For most of the children this was their first opportunity to make close, selective, mutual attachments to an adult who was consistently available.

They were then followed-up at four and a half years of age (Tizard and Rees 1974, 1975).

Follow-up at 4 ½ years of age

Tizard and Rees studied a group of 4 ½ year olds, consisting of three groups: those who had been adopted, 'restored' and those who were still in institutional care. All had been in care from the age of 4 months or earlier until at least two years of age. The adopted and 'restored' children had been in their homes for at least 6 months.

These children were compared with a group of family-reared London working-class children who had also formed a comparison group in the study of two-year-olds.

Adoptive families differed from the families of 'restored' children in several ways; they were two-parent families, usually middle-class, less likely to have other children, and were more likely to offer a very favourable and stimulating environment. Over half the mothers of 'restored' children were single parents, and they were generally younger and less secure financially than adoptive families. Most had not maintained regular contact with their child in the nursery; some had not visited at all.

Adopted children had the lowest mean number of behaviour problems, followed by the 'restored' children. Institutional children had the highest, and were significantly more likely to show poor concentration, difficult relationships with peers, temper tantrums and clinginess. 20 out of the 24 adoptive mothers felt the child was deeply attached to them, but 70% of the children still in institutions were said by the staff "not to care deeply about anyone", and they tended to be immature and clinging in their attachment behaviour and more likely to be attention-seeking than other children.

However the ex-institutional children had not entirely come to resemble family-reared children in their social behaviour towards adults. Some adopted and 'restored' children as well as institutional children were said by their mothers or nurses to be over-friendly towards strangers, and also to allow strangers to put them to bed or to comfort them if they were hurt. This was not reported for any of the

family reared children. Marked attention seeking was reported for 42% of the institutional children, 39% of 'restored' children, 29% of adopted children and 20% of the family reared comparison group. (Age at leaving the institution did not appear related to the behaviour problem score, or to indiscriminate over-friendliness.)

Follow-up at 8 years old

When the children were 8 years old they were followed-up again (Tizard 1977; Tizard and Hodges 1978). At this time the sample consisted of adopted children, children in long-term quasi-adoptive foster placements, 'restored' children and some who were still in institutional care. As well as looking at the long-term effects of early institutional care, this study also aimed to look at the effects of age at leaving the institution and the effect of the different family placements (adoption versus restoration) on outcome.

In general, the 'restored' children showed more problems than the adopted children, who in turn showed more problems than the comparison group children. In term of attachments, 84% of adopted mothers and 90% mothers of comparison children said they felt their 8-year-old was closely attached to them, but this was true of only 54% of the mothers of the 'restored' children. The period of institutional care with its general absence of attachments or opportunities for close relationships did not appear to prevent children forming a close and mutually affectionate relationship with their parents once they entered a family. But whether or not they did so depended to a large extent on the parents willingness to develop such a relationship, to accept dependent behaviour initially and to put considerable time and effort into the building of the relationship. On the whole the adoptive parents were much readier to

do this than the mothers of 'restored' children who had been ambivalent about having the children to live with them, spent less time playing with the children, expected greater independence of them, and were also more likely to have other children, whom they generally preferred. Stepfathers of the 'restored' children were less involved with them than the adoptive fathers with their children.

According to the parents, the ex-institutional children on average showed no more behaviour problems than the home-reared comparison children, except that they were more often 'over-friendly' and attention-seeking. However, their teachers reported considerably more problems, notably attention-seeking behaviour, restlessness, disobedience and poor peer relationships. Difficulties were particularly marked in the 'restored' group, but both ex-institutional groups showed more difficulties than classmates or the comparison children. Parents tended to report the same behaviour in the child as did the teachers, but not to see it as a problem as their teacher did. As the current family circumstances of the adopted and 'restored' groups were so different, it appeared likely that the behaviour problems which they had in common were based on their earlier shared institutional experience, which thus seemed to have effects on development up to approximately six years after leaving the institution.

Follow-up at 16 years of age

The children were then seen again at age sixteen (Hodges and Tizard 1989a; 1989b) in the adolescent follow-up, together with a new comparison group matched on demographic variables.

The experience of multiple changing caregivers during the period of institutionalisation did not necessarily prevent the children from forming strong and lasting attachment relationships to parents once placed in families, but this depended on family environment, being much more common in the adoptive families, where the parents were very interested in the children, motivated and able to put a lot of time and energy in to developing the relationship with their child. While the adopted adolescents showed generally satisfactory family relationships and attachments, which differed little from non-adopted comparisons, the 'restored' group suffered many more difficulties than either the adoptees or their own matched comparisons. Attachments between parents and adolescent were less common in the 'restored' group, as were expressions of affection; parents tended to prefer other children to the 'restored' child, and sibling relationships, though an area of some difficulty for the adoptees, were very much more difficult in the 'restored' group. At school the 'restored' group showed more difficulties and more anti-social behaviours than the adopted or comparison groups.

However, some more general long-term effects of early institutionalisation were apparent. Overall ex-institutional adolescents showed more behaviour and emotional difficulties than matched comparisons, according to teacher questionnaires and interviews with the adolescents and their parents. According to the teachers, the ex-institutional adolescents showed more difficulties at school than their matched comparisons. Though some of the difficulties shown in school at age 8 had diminished, the teachers still saw between a third and a half of the ex-institutional group as to some degree restless, distractible, quarrelsome with peers, irritable, and resentful if corrected by adults. 'Restored' adolescents showed particularly great

difficulties at school, and tended to show more antisocial types of behaviour, or apathy, while adoptees had come to show more anxious types of behaviour in adolescence. The ex-institutional adolescents also showed greater orientation towards adult attention, and had more difficulties with peers and fewer close or confiding peer relationships than matched comparison adolescents. The examination achievements of the ex-institutional group were also lower than those of their matched comparisons. When considering these characteristics of the ex-institutional group, Hodges (1991) suggests an 'ex-institutional syndrome', composed of 5 characteristic qualities common in the ex-institutional individuals when compared to the comparison group: they were more adult oriented, more likely to have difficulties in peer relations, less likely to have a special friend, less likely to turn to peers for emotional support, and less likely to be selective in choosing friends.

The data do not suggest a systematic loss of children between the different follow-ups such as to bias the findings.

Conclusions

This series of studies has shown that following the prolonged absence of early attachment relationships, children placed as late as 8 years old are able to form good attachments with their caregiver. Therefore a sharply delineated early period for forming emotional attachments is not supported by these findings. As late as 8 years of age, a child can develop close discriminative ties and show little of the 'affectionless character' described by Bowlby (1951). The evidence therefore suggests that these children's ability to recuperate from early adversity has been underestimated. The mark left on these children by their early experiences is not

permanent and irreversible, although some long-term effects, such as behaviour problems and difficulties in their relationship with peers is apparent up until adolescence. In the main it appears that early experience is to a large extent reversible under certain conditions by means of subsequent experience. However these studies have also shown that the nature of the environment following the privation has an important impact on the child's ability to recover and therefore on their outcome in later years. It therefore appears that early experience can have lasting effects, but that outcome is also influenced by subsequent experience. The question remains as to the duration of any such long-term effects.

SUMMARY

This discussion has been concerned with the question of the long-term effects of early adverse experiences on children's development and functioning, and in particular, the effects of the lack of a close attachment relationship with a primary caregiver during the first 2 or more years of life. The question has been whether this early privation causes permanent irreversible damage, or whether later positive experiences can facilitate recovery, and to what extent.

The vehicle for exploring this question arose in the form of children who spent time in their early years in institutional care where the environment did not allow them the opportunity to develop such relationships. Interest in this area arose following the early work of investigators such as Spitz, Goldfarb and Bowlby, who found that children who spent their early years in institutional care were behaviourally and emotionally disturbed. The theories that developed from these findings, pioneered by John Bowlby, forecast very poor long-term prognosis for the children. It was

argued that the damage caused to these children by their early adverse experiences was permanent and irreversible. These individuals would be unable to sustain intimate relationships in particular, and would be at risk of major dysfunction in a wide range of areas in later years. Others in the field criticised this, quoting evidence that showed that children were able to a large extent to recover from early adverse experiences if they were removed to a more favourable environment.

Since then many studies have been conducted looking at children's responses to early adversity in relation to institutional care. These studies included children with a wide range of early experiences including long and short periods spent in institutional care, disrupted upbringing and frequent separations due to moving back and forth from home to care or to foster homes, exposure family discord, parenting breakdown, privation as well as deprivation of a primary caregiver, all at different ages and for differing periods of time.

Outcomes for those children who suffered this early adversity was measured at a variety of different ages, but predominantly during the childhood years, some into adolescence and a few into adulthood. In general the outcomes were shown to be very varied and heterogeneous, with many showing some later difficulties in a variety of areas, a significant proportion of which were seen to have severe problems, as well as a minority who appeared to be functioning well within the normal range with no obvious difficulties.

Those who did show difficulties often experienced them at different ages in areas such as poor mental health, difficulties with peer relationships, difficulties in intimate

relationships, emotional and behaviour problems usually in the realm of externalising disorders including aggressive, anti-social and criminal behaviour, and difficulties in parenting. These individuals were often seen to be caught in a cycle of disadvantage. Factors and processes that were recognised as putting the individual at risk included, experiencing disrupted upbringing, with separations from carers, exposure to parental and family discord, being a boy, showing emotional and behavioural problems in childhood, poor relationships with parents and peers, low social support, early termination of education, teenage pregnancy, lack of planning and control over life circumstances, and a low sense of self-esteem and self-efficacy.

Some of the individuals from these studies however have had good outcomes, and differ very little from children brought up within their own families. The research has indicated a variety of factors which appear to be associated with these good outcomes. These include a good relationship with a carer either before entering care, during care or after the time spent in care, a harmonious family environment, good peer relationships, presence of a grandparent, good school and education experience, a supportive 'non-deviant' spouse, a social support network, sense of control and planning with regard to career and selecting a partner, good sense of self-esteem and self-efficacy.

To date then the evidence on the outcomes up until adolescence demonstrates that a substantial number of children do experience some long-term effects of early adversity, but that some show a strong ability for recovery, especially if they experience certain more favourable environments following their early experience. It is hypothesised that these effects are mediated by chains of mostly indirect links

across time, as well as having their effects on the environment and on the internal world of the individual such as their self-esteem or internal working models.

Few studies have looked at the adult outcomes of disrupted early experience. Those that have again show a heterogeneity of outcomes, but the majority showing some adjustment difficulties in their adult lives. When exploring the long-term effects of the lack of a close attachment relationship in the early years of childhood, many of the studies confound this issue with other influences. Most prominent are the Rutter studies which looks at a group of children who experienced a wide range of disruption to established relationships and exposure to discord in their formative years. The sample did not include any children who were later adopted, but was concerned with children who either remained in care or who returned to their often discordant biological parents. Therefore the outcomes cannot be said to derive solely from the absence of an early attachment relationship. The individuals seen were a variety of ages between 21 and 27 which might reflect different positions in relation to the transition to adulthood, rather than measuring all the participants at the same age, judged to be beyond the transition period when many important decisions and changes take place that will strongly influence their future lives. The study by Triseliotis et al. also found a wide heterogeneity of outcome, however this was a retrospective study, which in general are not as accurate and reliable as prospective studies.

The series of Tizard prospective longitudinal investigations are the studies which offer the best evidence for the long-term effects of the lack of attachments in the early years. The children entered care before they had the opportunity to form

selective attachments, nor did they experience family discord prior to their entry to care. The findings to date offer strong evidence for the recovery of these children once they were moved to an environment where they had the opportunity to develop attachments with their carers. They did however still show traces of persisting effects of their earlier adversities, evident particularly in their relationships with peers. The question remains as to whether these difficulties would persist into adulthood, or would they have recovered from their early experiences such that the effects had disappeared or 'washed out' by the time they reached adulthood.

This review of the literature demonstrates the need for an investigation of the more long-term effects of early institutional care by considering adult outcomes. A prospective, longitudinal follow-up into adulthood would provide the most valuable information concerning the long-term outcomes of such experience and the ability for recovery. The adults should be seen at the same age, and at a point where it is considered that the individuals will have more or less completed the transition into adulthood, when they will showing some stability following their adjustment to their new status. The effects of the lack of early attachment relationships should not be confounded by other disruptive influences such as frequent separations or exposure to family discord prior to placement. To investigate the ability for recovery the children should also at some point be removed to an environment where they have the somewhat belated opportunity to develop attachment relationships.

The present study

The present study was designed to fulfil these criteria and address the question of the long-term adult outcomes of the early lack of attachment relationships in early

childhood and the ability of these individuals to recover. The present study is a 15 year follow-up of the children previous identified and studied by Tizard and colleagues, who were all aged between 30 and 31 years. As already outlined this is a longitudinal prospective study of children who all spent from the age of 4 months to at least 22 months in residential nurseries before being adopted or 'restored' to their biological parent at some point on average when the child was between 2 and 7 years old. A wide variety of self-report measures would be used to investigate the adjustment and functioning of these individuals in a wide variety of areas including objective and subjective assessments of their interpersonal relationships with partners, peers, workmates and family, social support networks, levels of self-esteem, romantic attachment relationships, and general mental health (as recommended by Maughan and Champion, 1989).

The overall evidence to date including the previous stages of this study would suggest that most of this group would show persisting difficulties of some sort from mild to severe, evident in particular difficulties in making close, long-term confiding relationships with partners or friends; that their relationships with workmates and with managers at work would mirror earlier difficulties at school with peers and teachers; and that they may have lowered self-esteem and be more vulnerable to stress since good self-esteem and the presence of confiding relationships is know to play a protective role in times of adversity.

Unfortunately, neither the effects of differing lengths of time spent in the institutions, nor the differing effects of the type of placement following the children's period in

care will be considered in detail in the present study. This is due to the small sample size in these respective groups.

Research question

The research question that this study therefore aims to address is whether there are any long-term effects of a lack of early attachment relationships in early childhood? Do adult individuals who, as young children, were prevented from forming these attachment relationships until some years later than normal (due to having spent their early years in institutional care), show any long-term effects of this early adversity, in terms of their social or family relationships, adult adjustment or levels of self-esteem?

CHAPTER 2

METHOD

This study was a 15 year follow-up of a longitudinal study looking at the long-term effects of early institutional care on the individual's adult psychological adjustment, social relationships and mental health. The ex-institutional group had been studied previously at ages 2 ½, 4, 8, and 16, and was compared with a comparison group who had been previously studied at age 16.

SAMPLE

Ex-institutional group

The ex-institutional group was a sub-sample of the group of children who were first studied by Tizard and Joseph (1970) when they were two years old. They were followed-up in further studies Tizard and Tizard (1971), Tizard and Rees (1974), (1975), Tizard (1977), Tizard and Hodges (1978) when they were eight, and Hodges and Tizard (1989a) and (1989b) when they were 16 years old.

The ex-institutional group was composed of individuals who had spent from 4 months of age to at least 22 months of age in institutional residential care. Following this they were either adopted, 'restored' to their biological mother or remained in care until age 16. These individuals were approximately 31 years of age and at the time of the study lived throughout the British Isles.

Tizard and Joseph's (1970) original criteria for inclusion were:

1. healthy full-term babies

2. admitted to the residential nursery before the age of 4 months
3. continued in residential care until at least 22 months

There was no criterion on the basis of sex. This institutional population was in general characterised by more boys than girls.

The minimum period spent in residential care by all the ex-institutional children was characterised by good physical care, but a high rate of turn over of care staff. By two years of age the average number of carers for the children was 24, for at least a week each, and an average of 50 carers by the age of 4 ½ years. An explicit policy of staff not getting emotionally involved with the children for whom they were caring also meant that the children had little opportunity to form close continuous relationships with an adult.

Those invited to be participants in the present study were all those who had taken part in the Hodges and Tizard (1989) study at 16 and those individuals who did not take part at 16 but who were seen at age 8. Those who were seen at 8 but not at 16 who were included in this study were those who could not be contacted at 16 or whose parents had declined to let their child take part. Ex-participants who were not invited to take part in the study were either those who had refused further contact at eight or 16 (only one), or those whose placements had broken down for a variety of reasons, and had therefore spent time in and out of care up until 16 (four). It was felt that these latter individuals would not be comparable with the rest of the sample since they had much disruption throughout their childhood and did not have had the same time-limited early experience of being in care as did the others in the sample.

When this sample was studied during the earlier stages of the study the ex-institutional group was sub-divided into several groups depending on their childhood experiences in the residential nurseries and the type of placement following this care. These were:

1. Adopted before age 4 ½ years.
2. 'Restored' to biological parent before age 4 ½ years.
3. Adopted after age 4 ½ years.
4. 'Restored' to biological parent after age 4 ½ years.
5. Late institutional care and mixture of disrupted childhood care.

These subgroups were studied and compared during the earlier stages of this study. However in this study there were not in general enough individuals taking part from each of these five subgroups to look at them as distinct groups for quantitative analysis. They were instead considered as one ex-institutional group who all had in common early institutional care between 4 and 22 months of age.

Comparison group

A comparison group of the same average age and originally from London who had participated in the adolescent stage of the study were re-contacted for this follow-up, for the benefits of longitudinal comparison. This comparison group had been selected on the following basis, via their GPs:

(a) they were matched on sex, one/two parent family, Registrar-General's occupational classification of main breadwinner, and position in family.

(b) and were excluded if they had mental/physical handicap, chronic illness, or had

spent longer than a few weeks away from their family in residential care/hospital at any age.

In adulthood these individuals were dispersed throughout England. Although the comparison group was carefully matched at 16, this individual matching was not utilised at 31 years since not all those from both groups took part and therefore their matched partners were not necessarily available for comparison.

Sample size

The target sample size for this study was 26 in both groups. This would meet the criteria based on Cohen's (1992) power calculations which suggest that for a large effect size, and for a test of the difference between two means, with a criteria for significance at 0.05, the minimum sample size is 26. The maximum number of ex-institutional individuals eligible to take part in this study was 36, and 31 comparison group individuals.

Recruitment procedure

Participants were contacted either by means of their previous contact address (at age 8 or 16) or by being traced to their last known address or to the GP practice to which they were last registered. Where a GP address was given the GP was asked to forward correspondence to the patient on our behalf. Where the FSHA returned a reply of 'no trace' this participant would be classified as uncontactable unless contact had been made by another route. Each participant was provided with information about the study, consent form and free post reply slips, together with a questionnaire and invited to take part. Following return of the questionnaire we would

acknowledge receipt and send a postal order or £10 as a small token of our gratitude for their cooperation. Three reminders (or telephone call if telephone number had been provided) including new sets of documents would be sent before the participant was considered either uncontactable at that address or unwilling to take part, depending whether direct contact had already been made or not with the participant. At all stages the participant was given the opportunity to withdraw from the project or seek further information about the study if wanted.

Attrition rates

The attrition rate for the ex-institutional children over the eight years between the 8-year-of-age and the 16-years-of-age follow-up was 17.5%. Given that 36 ex-institutional participants were eligible for this study it was estimated that an attrition rate of 17.5% would leave 30 participants in the ex-institutional group. If however the attrition rate was doubled for twice the amount of time (16 years), the figures would be 23 in the ex-institutional group. As Table 1 below indicates this is almost exactly the numbers achieved for this 31 years of age study.

There was no previous attrition rate for the comparison group on which to estimate contact at 31 years however a figure substantially below that for the ex-institutional group was attained (26%).

Table 1. Rates of participation and attrition

	Ex-institutional	**Comparison**
Maximum eligible	36	31
Participants	22 (61%)	23 (74%)
Attrition	14 (39%)	8 (26%)

Table 2 shows a breakdown of the reasons for attrition in the obtained sample. The factor that accounted for most of the attrition in both groups was the lack of response following tracing. This could either be due to the participants not wanting to take part, but it is felt to be more likely that the tracing was not up to date enough to locate the potential participants at their most recent address, such that contact had not been achieved.

Table 2. Reasons for attrition

	Ex-institutional	**Comparison**
Refused	1 (7%)	0
No trace	3 (22%)	3 (37.5 %)
Dead [a]	2 (14%)	0
Dropped-out	1 (7%)	2 (25%)
No reply following tracing [b]	7 (50%)	3 (37.5 %)

[a] : One through traffic accident, other unknown.

[b] : The term 'No reply following tracing' corresponds to those cases where tracing details were received for either the address or the GP's address for that participant, but letters to this address brought no response. This could either be because the past participant did not want to take part in the study, however it is likely that some of these tracing results were not up-to-date records of the participants residential address.

Table 3. Attrition rates in the ex-institutional sample according to early experience.

	Potential max. in sample	Numbers participating	Non-participants/ Attrition rates
Adopted before 4 ½	17	14 (82%)	3 (18%)
'restored' before 4 ½	6	2 (33%)	4 (67%)
Adopted after 4 ½	4	4 (100%)	0 (0%)
'restored' after 4 ½	4	1 (25%)	3 (75%)
Late residential care mixture	5	1 (20%)	4 (80%)

Table 3 shows the attrition rates according to the ex-institutional sub-groups.

The attrition rates tended to be lower for both adopted groups in comparison with 'restored' and late residential care groups. Both 'restored' groups showed high attrition rates, before and after 4 ½ years

Ethical approval

Ethical approval for this study was given after review by the Great Ormond Street Hospital for Sick Children NHS Trust / Institute of Child Health Research Ethics Committee (96BS16).

Structure of the study

Postal questionnaire

A postal questionnaire was sent to all participants of the study. This questionnaire is presented in Appendix 1.

Data from the past stages of the study

Punch card data from the 16-year-old stage of this study were available on the majority of those who were invited to take part in this study. Punch card data were also available from the 8-year-old stage of the study for the ex-institutional participants but not the comparison group since they were first seen at 16. These data were re-entered and used in the analysis of this study.

MEASURES

A self-report questionnaire was assembled to investigate the following areas:

1. Demographic details
2. Psychiatric health (General Health Questionnaire - 28-item (Goldberg & Hillier, 1979)).
2. Self-esteem (Rosenberg Self-esteem Questionnaire (Rosenberg, 1965)).
3. Inter-personal relationships (the Inventory of Interpersonal Relations - 32-item (Barkham, Hardy & Startup, 1996) and sections based on the SSIAM (Structured and Scaled Interview to Assess Maladjustment (Gurland, Yorkston, Stone, Frank & Fleiss, 1972)).
4. Social support (based on the Sarason Social Support Networks questionnaire (Sarason, Levine, Basham & Sarason, 1983) and the Buhrmester Friendship Intimacy Questionnaire (Buhrmester, 1990)).

5. Attachment relations with parents, partners and children (based on the questionnaires designed by Hazan and Shaver (Hazan & Shaver, 1987)).
6. Recent life-events (based on the Brugha et al. life-events questionnaire (Brugha, Bebbington, Tennant & Hurry, 1985)).

Measures used at age 8 and 16 that were included in this study were:

1. Teacher questionnaire (age 8): Behaviour problems and social relationships
2. Rutter A parent questionnaire (at age 16)
3. Rutter B teacher questionnaire (at age 16)
4. Lindsay and Lindsay self-report social difficulties questionnaire (at age 16)
5. Adolescent- and parent-based interview measures (at 16).

Description of measures and research procedure

The total potential sample size was not large, and so it was of the utmost importance to attempt to encourage all of those contacted to complete and return the questionnaire. The total questionnaire was designed to elicit important details of the participant's current situation, without making it's completion too onerous a task. This meant that it had to be as succinct and easy to complete as possible. In attempting this some of the measures used had to be adapted and short-forms used. Therefore standardisation and comprehensivity were sometimes reduced for brevity and ease of completion, although where possible standardised measures were used. The measures were piloted and took 30-45 minutes to complete.

1. Demographic details

Demographic details were gathered concerning marital status, children, living

arrangements, qualifications and occupation of the respondent and their partner where applicable. Basic information was also elicited on the respondents history of contact with the police, medical in- and out-patients, as well as contact with mental health professionals.

Qualifications were rated such that no qualifications were rated lowest and a degree was rated highest, with a range from –2 to +5. The occupations given were rated according to the Registrar General's Social Class index, of 6 categories from 'I' professional occupations to 'V' unskilled occupations, and coded such that category I was rated as +5 and category V was rated as -5. Information given was sometimes inadequate to confidently classify the individual and a best estimate was given meaning that the reliability of this section may be somewhat lowered.

2. Life-events (LEQ : adapted from Brugha, Bebbington, Tennant & Hurry, 1985).
A 17-item questionnaire was used to assess the occurrence of certain major life events over the last 5 years. It takes the form of a checklist of different life-events and the respondent is asked to mark those which they have experienced in the last 5 years. The score is the sum of life-events experienced and is therefore out of a maximum of 17 for those who have been married or lived with a partner in the last 5 years, and 14 for those who have not. This instrument has only been used for assessment of a maximum period of 5 years, with reasonable levels of accuracy. Therefore it was thought best to use a standardised measure which could then later be used for comparison with other groups.

This form of the questionnaire was first used by Champion et al.(1995) in their long-

term follow-up study. It consisted of a list of severe life events published by Brugha et al.(1985) plus three additional categories which were considered particularly pertinent for a sample of this age group. This was based on the Tennant and Andrews 67-item life events questionnaire (Tennant and Andrews, 1976). Comparing the 67-item Tennant and Andrews inventory with the 12-item Brugha questionnaire, the shorter check-list covered 82.5% of all events collected by means of the 67 item inventory. A substantial proportion of all events with marked and moderate long-term threat or measured adversity were accounted for by a small subgroup of those event categories identified by the 67-item life-events inventory. The 12 selected categories of the Brugha questionnaire accounted for two thirds of all events collected and four fifths of those rated marked or moderate in long-term threat (Bebbington, Tennant, Sturt, & Hurry, 1984).

3. Friendship Intimacy Questionnaire (FIQ : Buhrmester, 1990)

The Friendship Intimacy questionnaire was used to provide a short and comprehensive measure of dyadic friendship intimacy (Buhrmester, 1990). The FI was devised from the Network Relations Inventory (Furnam & Buhrmester, 1985) and is based on the Theory of Social Provisions described by Furman and Robins (1985). The questionnaire measures companionship, intimate disclosure and social satisfaction sub-scales to assess friendship. The nine item questionnaire includes questions such as: how often do you share secrets and private feelings with this person? (Intimacy); How often do you spend time with this person? (Companionship); and How satisfied are you with your relationship? (social satisfaction). The respondent is asked to nominate two friends and in turn the respondent is asked to rate 'how much' or 'how often' to the nine questions for each

friend. Answers are recorded on a five point Likert scale: 1 = 'Never or hardly at all', 5 = 'Very often or extremely'. A total score is achieved by averaging the scores for the nine items, and subscale scores are achieved by averaging the scores for the three relevant items, giving scores ranging between 1 and 5. The psychometric properties are not yet well established, however, Buhrmester (1990) reports alpha coefficient scores as 0.93.

4. Adapted Sarason Social Support Questionnaire – Short form (SSQ: Sarason, Levine, Basham & Sarason, 1983).

This questionnaire was used as the basis for a measure of the participant's social support network. The questionnaire measures the perceived availability of and satisfaction with social support in a variety of situations. The respondent is asked to list the individuals who provide help or support in these circumstances. A maximum of nine persons could be listed for each item, each identified by their initials and relationship to the respondent.

Factor analysis of the scale (Sarason, Levine, Basham & Sarason, 1983) has demonstrated that the measures of numbers of support and satisfaction are relatively separate constructs, that are fairly independent of each other, with low inter-correlation correlation of .34.

The questionnaire has good face validity. Test-retest reliability over a four-week period has been shown to be acceptable with 0.90 for availability of support items and 0.83 for satisfaction with support. Alpha coefficients for internal reliability were

0.97 and 0.94 respectively. Inter-item correlations ranged from 0.37 to -0.71 for availability.

However, certain adjustments were made in an attempt to make the questionnaire more appropriate for the respondents, relatively quick and easy to fill in, and yet remain as informative as possible.

1. All of the 6 main questions were retained, and 2 new questions were added. These addressed who the respondent would go to when really pleased and happy about something, and who they would tell when feeling worried or anxious. It was felt that these two areas were not sufficiently covered by the original 6 questions and yet were important aspects to include if a comprehensive picture of the participants social support network was to be obtained.

2. The respondent was asked to rank order the top three people that they would go to in each situation outlined. This is a departure from the standard format which simply asks the respondent to list the six people who they would approach in each of the situations. It was felt that ranking would provide more useful information about the nature of the different relationships, and that prioritising three people would encourage the respondent to select them carefully, using an element of forced choice, rather than more or less listing the same six people for each question. Listing three people instead of six also reduced the size of the questionnaire which was felt to be rather long in an already lengthy questionnaire set.

3. The SSQ requires the respondent to give the initials of the friend and state their relationship to the respondent. In the current adaptation of the Sarason the respondent was also asked to state the friends age. This was felt to be potentially important information for this sample, since it would provide information about the preferred age group that the respondent would turn to for support, be it their peer group or perhaps an older generation.

4. For each question, an alternative response to listing their friends was available. The participant could volunteer that there was no one whom they would turn to in the situations listed. We kept this valuable option but included a second alternative label where appropriate of 'prefer to rely on self'. This was for those individuals who felt that they would prefer to rely on themselves rather than talk to others in any particular situation outlined. It was felt that this would be a valuable alternative option, of a positive and non-pathologising kind, for those who would prefer not to elicit support from others in certain situations, and might also be particularly relevant for this sample who at sixteen had tended not to turn to peers for support.

5. In the original Sarason questionnaire, there is a part b) to each of the main questions which asks how satisfied the respondent is with the support they receive in each situation listed. Due both to limited space, but predominantly to the fact that it made the questionnaire quite difficult to understand and fill in, these questions were not included here. As a compromise a final ninth question was added at the end of the questionnaire which asked about the respondents overall satisfaction with the support that they receive, using the Sarason 6-point scale (where 1 is very satisfied

and 6 is not very satisfied). The intention was that this would tap the same overall issue as the original part b)'s, if somewhat generalised.

Coding of the social support questionnaire

The responses to the questionnaire provided information on the identity, age and relationship to the respondent of those listed under the different circumstances.

Several summary scores were derived from this questionnaire for analysis:

1. The total number of people listed in the questionnaire (max. 24).
2. The total number of different people listed in the questionnaire (max. 24).

Scores were also calculated for how often, out of all those people and occasions listed, were certain categories confided in. These categories were family members, non-family members, peers (defined as those within 15 years either side of the respondents age), those in an older generation (again defined as over 15 years older than the respondent) and partners of the respondents. This would attempt to identify the category of friend that the respondent preferred to turn to in different situations. How often the respondent preferred to rely on themselves/tell no one was also calculated.

5. Adapted SSIAM (SSIAM : Gurland, Yorkston, Stone, Frank & Fleiss, 1972).

Five sections of the questionnaire, each of approximately 10 items, were largely based on the SSIAM (Structured and Scaled interview to Assess Maladjustment), a psychiatric interview-based assessment of social difficulties (Gurland et al.1972). It was devised to cover issues concerning the respondent's feelings and behaviour in a range of social contexts. Adaptations made to the SSIAM for the purposes of this study involved changing the format of the instrument from being interview-based to

self-report. The section relating to family and partners contained all the items from the SSIAM scales. However extra items were added in the areas which were felt to be important to this study but inadequately covered by the SSIAM. These included a section on relationships with the respondents children, and some alternative additional items in the sections on work and friends.

The adapted questionnaire was therefore made up of five sections:

1. Relationships at work: This section comprised 11 questions relating to relationships at work (for those who had held a job in the last two years).
2. Relationships with friends: This section comprised 9 questions relating to relationships with friends.
3. Relationships with family: This section comprised 9 questions relating to the participants interaction with their family of origin (adoptive in the case of the ex-institutional participants).
4. Relationships with partners: This section comprised 10 questions for those who had partners within the last two years.
5. Relationships with their children: This section comprised 10 questions to be complete by those who have children/stepchildren

The participant is asked to rate how true each of the statements is for them on a 5-point scale (anchored by 'not true' to 'very true'). All directions of the questions are positive. This yields a mean total for each section as well as a total mean score for the five sections together. A high score indicates greater difficulties.

6. Attachment questionnaire (Hazan & Shaver, 1987)

An 8-item questionnaire used by Hazan and Shaver (1987), was included in the battery which was designed specifically as a self-report measure of 'mental models' concerning the self and others. Responses were on a 6-point scale and each item was to be analysed individually. Hazan and Shaver found these items to shed light on the respondents attachment style, finding that attachment style correlated significantly with 6 of the 8 items.

Three questions were also included (Hazan and Shaver, 1987) which describe three different attachment styles with respect to relationship partners (secure, insecure-avoidant and insecure-ambivalent). These items take the form of statements describing feelings concerning relationships with others, and the respondent is asked to rate, on a scale of 0 to 5, how true these statements are for them. These items were designed by translating the well known descriptions of infant attachment patterns (Ainsworths, Blehar, Waters & Wall, 1978) into terms appropriate to adult love.

In two samples Hazan and Shaver found that the distribution of the three different attachment styles was close to the proportions reported for infant-mother attachment by Campos, Barrett, Lamb, Goldsmith & Stenberg (1983). These were 56% (versus 62% in the infant-mother studies) as secure, 24% (versus 23%) as insecure-avoidant and 20% (versus 15%) as insecure-ambivalent.

In the original paper the respondent is asked only which of the three attachment styles best matches their style of relating in a personal relationship. However, in this

study the respondent was asked to what degree did they feel they fitted each of the three categories. This is more consistent with the overall style of responding in the questionnaire as a whole, and allows for less categorical responses, and so might allow for more accurate depiction of the individuals style of relating. These items were analysed individually.

7. Inventory of Interpersonal Problems – 32 item (IIP : Barkham, Hardy & Startup, 1996).

The 32-item of the Inventory of Interpersonal Problems developed by Barkham, Hardy & Startup (1996) was used as a measure of interpersonal difficulties. This short version was adapted from the original 127-item IIP (Horowitz and Rosenberg 1988) and aims to measure distress arising from interpersonal sources.

This questionnaire is in two parts and takes the form of 19 questions about things that the respondent may find 'hard to do', and 13 items that the respondent may 'do too much'. For example, 'It is hard for me to socialise with other people', or 'I lose my temper too easily'. For each item the respondent is asked to answer on a scale of 0 to 4, 'not at all' to 'extremely/definitely'. This questionnaire yields a total mean score and eight sub-scale mean scores labelled 'hard to be sociable', 'hard to be assertive', 'too aggressive', 'too open', 'too caring', 'hard to be supportive', 'hard to be involved' and 'too dependent'. A high score indicates a greater number of interpersonal problems.

The items on the shortened version were derived from a factor analytic study of those original items loading highest on eight subscales (Barkham, Hardy & Startup 1994).

These subscales are proposed as measuring eight distinct facets of interpersonal difficulty. The eight component structure of this questionnaire has been well replicated. Every item had its highest loading (all greater than .4) on its targeted items, and no items had loadings as large as .4 on any but their target components. Reliability coefficients for the eight scales ranged between .72 and .88, and was .90 for all the items. Re-test correlations for the 8 scales ranged from .56 to .81 over a two month period.

8. The Rosenberg self-esteem Scale (RSE : Rosenberg, 1965)

The RSE was included as a measure of self-esteem. This is designed as a unidimensional index of global self esteem. Designed specifically for brevity and ease of administration, it is a 10-item questionnaire, composed of five negative and five positive statements. Responses are reported along a 4-point scale, from strongly agree to strongly disagree. The scores on the 5 positive and 5 reversed items are summed to give a total score between 0 and 40 (a high score indicates low self-esteem). It has a reproducibility index of .93, suggesting that the items are internally consistent. Silber and Tippett (1965, in Bowling, 1991) obtained a 2 week test-retest reliability of .85. Validity correlations with several similar measures and clinical ratings of self esteem ranged from .56 to .83. The Rosenberg scale is popular and has been used widely; its brevity is also an advantage for this study.

In the original, the response scale takes the form of 5 spaces anchored by labels 'strongly agree' and 'strongly disagree'. This format was changed slightly for this study, in order that the response format was as consistent as possible with the rest of

the questionnaire. A 5-point scale was still used, as were the same anchors, but the respondent was asked to select answers on a scale from 0 to 4.

9. The General Health Questionnaire – 28 item (GHQ : Goldberg & Hillier, 1979). An assessment of psychological well-being was obtained using the General Health Questionnaire (GHQ-28; Goldberg & Hillier 1979). This is a self-administered screening instrument designed to detect current psychiatric illness, rather than make clinical diagnoses. Emphasis is placed on changes in condition rather than on the absolute level of the problem and therefore items assess the person's present state in relation to their usual state, with responses ranging from 'less than usual' to 'much more than usual'. (For this reason it is possible that this instrument may miss long standing disorders). The GHQ-28 is an abbreviated version of the main sixty item questionnaire, and contains 28 items selected via factor analysis which have identified four scales measuring somatic symptoms, anxiety and insomnia, social dysfunction and severe depression (seven items for each). These scales are not independent of each other, with correlations ranging from 0.33 to 0.58 (Goldberg & Hillier 1979).

This version of the GHQ takes 3-4 minutes to complete. Items are scored by rating problems as present or absent using a scoring system whereby responses are coded 0-1-2-3. The final scores (overall and for each of the four scales) can be interpreted as indicating the severity of psychological disturbance on a continuum. The threshold score is 4/5. This indicates the probability of psychiatric 'caseness' at 0.5 (Goldberg & Hillier 1979).

The validity of the GHQ-28 has been reviewed by Goldberg & Hillier (1979). They report that correlation of the overall score with the Clinical Interview Schedule was 0.76. Reasonably high correlations of 0.73 and 0.67 were also obtained with a clinical depression rating and an anxiety rating respectively. Using the threshold score of 4/5 the sensitivity was 88 per cent, the specificity 84.2 per cent and the overall misclassification rate was 14.5 per cent.

Past data available on those participating in this study

Longitudinal data were available from the 8-year-old and 16-year-old stages of the study for inclusion in this study. Only 19 of the 22 ex-institutional participants taking part in the 30 year old study were seen at 16. (The three respondents with incomplete data were all from the group of those adopted before age 4 ½.). This means that for the purpose of correlations between the 16 and 30 year old data the ex-institutional sample size is 19. All of the 23 comparison participants seen at 30 were also seen at 16.

All 22 of those taking part in the 30 year old study were seen at 8 years old. However some data were not provided by the teacher on one of the sample at 8, namely the score on the behavioural checklist and on the social relations questionnaire. This means that the sample size for these comparisons is 21.

Correlations between the 8 and 30 year old data were only possible for the ex-institutional group since the comparison group seen at 8 were a different sample from the comparison group seen at 16 and 30. Therefore longitudinal data from age 8 are not available for this comparison group.

Data from the adolescent stage of the study

For the adolescent stage of the study information was gathered on the adolescents about behavioural, emotional and social problems reported by teachers, parents and by the adolescents themselves. The measures used were the Rutter A and B scales, a questionnaire on social difficulty (Lindsay & Lindsay, 1982), a teacher questionnaire on social relationships, and an in-depth parental interview schedule and an adolescent interview schedule, the last three of which were designed by the authors specifically for the adolescent stage of the study.

11. Rutter A Questionnaire for parents (RA : 16-year-old follow-up)

This is a questionnaire to be completed by the parents of those taking part at 16 years of age. It has three sections, 'health problems' (8 items), 'habits' (5 items) and 18 'statements' about the child's behaviour. All items are scored 0-1-2 and yield three subscale scores of a maximum of 16, 10 and 36 respectively. These sum to give a total score out of a maximum of 62. High scores indicate more problems.

12. Rutter B Questionnaire for teachers (RB-16 : 16-year-old follow-up)

This 26-item questionnaire concerning problem behaviours was completed by the class teachers of those taking part in the 16 year follow-up. The items were scored 0-1-2, and full scale scores were out of a maximum of 52. High scores indicate more problems.

13. Lindsay and Lindsay Social Difficulties Questionnaire (L&L : Lindsay & Lindsay, 1982 : 16-year-old follow-up).

This was a questionnaire concerning social difficulties was completed by the ex-

institutional and comparison participants when they were seen at the 16 year follow-up. It covered social difficulties in relation to adults and peers, of both the same and opposite sex. The questionnaire is composed of 46 items and each question has four possible responses, a to d ('very much' to 'not at all'), scored 0-1-2-3 and gives a maximum total score of 138. High scores indicate more problems.

14. Adolescent interview Problem Score (AIPS :16-year-old follow-up)

This is a composite score based on 18 items from the adolescent interview at the 16 year follow-up of this study. It was devised as a index of overall difficulties experienced at this age and was made up of items such as how the child gets on with his peers, existence of feared situations, impulsivity, loneliness, how he gives and receives affection, and attachment to his mother and father etc..

15. Parent interview Problem Score (PIPS : 16-year-old follow-up)

This is a composite score based on 28 items of the parental interview at the 16-year-old follow-up. It was devised during the adolescent stage of the study as providing an overall index of problems and used in much of the analysis at this stage. The questions contributing to this score included relationships with teachers, peers and siblings, anxiety provoking situations, loneliness, depression, and getting in trouble at school etc..

Data from the 8-year-old stage of the study

Measures from the 8-year-old phase of the study that were used in this study were those taken from the teacher questionnaire, as follows.

16. Teacher questionnaire (8-year-old follow-up)

A questionnaire to be completed by the participants teachers was devised specifically for the 8 year follow-up. This questionnaire is made up of two parts. The first part is made up of 7 items concerning social relations (SocRel-8) and gives a total score out of a maximum of 8. The second part was the Rutter B (RB-8) questionnaire minus two items (item 11 (twitches/mannerisms/tics) and item 18 (fussy/over-particular)). This made 24 items, scored 0-1-2 giving a maximum total score of 48. High scores indicate more problem behaviours. It was felt that the Rutter B did not adequately cover issues concerning interpersonal relations with peers and adults in school and therefore the additional section on social relations would fill an important gap in the data at 8 years of age.

Data analysis

All of the above data were used in the analysis. What little data were missing from the data set were replaced by the mean score for that variable across the sample. This method was advocated by Tabachnick and Fidell (1996) and considered the best method to deal with such omissions. Excluding cases from analysis because of one missing data point was deemed an undesirable option given the already small size of the sample. All testing was at the .05 significance level and all tests were two-tailed.

The very large data set meant that many statistical tests were conducted. There was therefore a possibility of type I errors occurring. Given the lower statistical power the approach taken was to conduct all tests at a .05 level of significance (unless otherwise stated), but to remain cautious in the interpretation of the findings as they may be due to chance.

CHAPTER 3

RESULTS

Demographic details of the sample will be described first, to be followed by descriptive statistics of the sample. Inferential statistics concerning this study will then be addressed, as well as information about correlations between the different variables. Longitudinal comparisons will then be made between the current data and data from the 8-year-old and 16-year-old stages of the study. This chapter will conclude with an exploration of the effect of attrition on the characteristics of the sample.

Prior to analysis the distribution properties of the variables were explored in order to determine whether parametric or non-parametric statistics were most appropriate for the analysis of these variables.

DEMOGRAPHIC INFORMATION

The demographic details are shown in Table 1 below. There were no significant differences in marital status and no significant difference on the proportion who had children. Although the ex-institutional group had a slightly higher average number of children this difference was not significant. Fewer ex-institutional participants had a mortgage. On the other hand more ex-institutional participants rented from their local authority or housing association than comparisons, who were more likely to rent furnished accommodation privately.

More of the ex-institutional participants than expected had been in trouble with the police compared with the comparisons. At 16 years of age four of the ex-institutional group had been in trouble with the police, compared to 15 who had not. There was no relationship between those who as adults had been in trouble with the police and those who had been at 16. Six of the nine with a police history at 31 had no such history at 16. More than expected members of the ex-institutional group were on benefits as compared to 3 from the comparison group which was less than expected, however this difference was not statistically significant.

Although there were no significant differences between the ex-institutional and the comparison group in terms of their history of physical or mental health histories (as shown in Table 4), there were trends in the following directions: Ex-institutional participants had had more out-patient medical care, in-patient medical care and contact with mental health professionals than the comparison group.

Table 4. Demographic details.

	Ex-Institutional group N = 22	**Comparison group** N = 23	**Statistic**
Sex			N.S.
Male	15	15	
Female	8	7	
Marital status			N.S.
Single	8	7	
Living with partner	2	5	
Married	11	11	
In relationship (not married)	1	0	
Separated/divorced/widowed	0	0	
How many participants have children of their own?	9	10	N.S.
Mean number of children	1.78	1.44	N.S.

(Continues over page).

Table 4. Continued.

	Ex-institutional group	Comparison group	Statistic
Living arrangements:			Chi-sq(3) = 9.33*
Owned outright/mortgage	12	15	
Rented from local authority/housing association	7	0	
Privately rented – unfurnished	1	1	
Privatley rented – furnished	2	6	
Currently on social security benefits?	6	3	N.S.
In trouble with the police since 16?	9	3	Chi-sq (1) = 4.46*
How many have a history of physical or mental health difficulties?			
Out-patient medical care	14	11	N.S.
In-patient medical care	16	14	N.S.
Seen a mental health professional	5	3	N.S.

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

Qualifications of participant and partner

The ex-institutional group had a lower mean level of qualification than the comparison group, however this difference did not reach significance (see Table 5). There was a significant difference between the ex-institutional and comparison group

such that ex-institutional participants have partners with lower qualifications than the partners of the comparison group.

Table 5. Descriptive statistics concerning qualifications and occupation

	Ex-institutional		Comparison		Statistic
	Mean	**S.D.**	**Mean**	**S.D.**	
Level of qualification held by participant	0.86	2.20	1.82	2.28	N.S.
Level of qualifications held by participant's partner [1]	1.23	2.20	2.64	2.21	U=52.5*
Occupation of participant (Social Class Index)	1.44	2.39	2.13	2.26	N.S.
Occupation of participant's partner (Social Class Index)[1]	0.94	1.77	2.20	2.08	U = 73.5*

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

When comparing the means reported here it appears that the ex-institutional and comparison participants have partners who on average have higher qualifications than themselves. A paired t-test for the difference between the mean qualification of the partner and participant is not significant for the comparison group, although the scores are strongly correlated with a coefficient of 0.59*. For the ex-institutional group this difference between the scores is not significant either, but again the two sets of scores are correlated with a coefficient of 0.63*.

[1] Missing data on two from the comparison group means that n(comparison)=14 and n(ex-institutional)=13

Occupation of participant and partner

The difference in occupational status of the two groups was not significant, although there was a trend in the direction of the ex-institutional group having a lower social class/occupational status than the comparison group (see Table 5).

There was a significant difference in the occupational status of the participants partners such that the ex-institutional group's partners had a lower 'social class' classification than the partners of the comparison group participants. There was no significant difference between the occupational status of the participant and their partner, although the ex-institutional group had partners with lower occupational status than themselves.

OTHER MEASURES

Life events

Table 6 shows the mean number of life events experienced by the ex-institutional and comparison group in the last 5 years. Although the ex-institutional group has a higher mean incidence of listed life-events than the comparison group, this is not a significant difference. This finding is not substantially altered when three extra items are added to the above set to include only those who have had life-events in relation to their partners in the last 5 years.

Table 6. Number of life-events.

	Ex-institutional		Comparison		Statistic
	Mean	**S.D.**	**Mean**	**S.D.**	
Number of life-events	3.63	2.44	3.00	1.38	N.S.

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

Self-esteem

Table 7 shows scores on the self-esteem measure, where a high score indicates poor self-esteem and a low score indicates high self-esteem. There is a trend in the direction of ex-institutional participants having a slightly higher self-esteem than the comparison group, but a Mann-Whitney test shows that the difference between the medians is not significant.

Table 7. Rosenberg Self-Esteem Questionnaire

	Ex-institutional		Comparison		Statistic
	Mean	**S.D.**	**Mean**	**S.D.**	
Self-esteem score	11.3	10.1	14.0	6.5	N.S.

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

Further analysis in the form of 2-way Anovas were carried out to examine the relationships between self-esteem scores and dichotomous variables, such as gender, relationship status, mental health history, and history of being in trouble with the

police (either in adulthood or in adolescence). These analysis found no significant group differences or interactions.

Friendships and social support

Friendship Intimacy Questionnaire

Table 8 shows the total scores on the FIQ, together the sub-scale scores, and the mean age of the friends listed. The ex-institutional group had higher scores (indicating greater friendship intimacy) on this questionnaire than the comparison group, and this difference was approaching significance on a two-tailed t-test ($p = 0.079$). The difference in score on the combined 'companionship' scale was also found to be approaching significance with the ex-institutional group having a slightly higher mean value than the comparison group ($p=0.08$). Overall differences between the scores on the combined intimacy scale and satisfaction scale were found to be non-significant, as were the total and subscale scores for each friend individually. There was a slightly higher mean age of the nominated friends for the ex-institutional group compared to the comparison group, but this was not a significant difference.

Table 8. Friendship Intimacy Questionnaire.

	Ex-institutional		Comparison		Statistic
	Mean	**S.D.**	**Mean**	**S.D.**	
FIQ total score	7.3	1.0	6.6	1.2	t(41) = 1.80, p=.079
Companionship subscale score	6.9	1.1	6.2	1.3	t(41)=1.8, p=0.08
Intimacy subscale score	6.5	1.7	5.7	1.8	N.S.
Satisfaction subscale score	8.5	1.3	7.9	1.5	N.S.
Mean age of nominated friends	32.3	7.5	31.1	3.7	N.S.

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

Sarason Social Support Networks

This questionnaire yielded a variety of variables for analysis, the results of which are outlined below (see Table 9).

Table 9. Adapted Sarason Support Network Questionnaire

	Ex-institutional		**Comparison**		**Statistic**
	Mean	**S.D.**	**Mean**	**S.D.**	
No. of slots filled	14.8	6.5	17.3	5.0	N.S.
No. of people	4.7	2.0	4.9	1.7	N.S.
Overall satisfaction	5.0	0.9	5.0	0.8	N.S.
Prefer to rely on self	1.5	1.4	0.8	1.1	N.S.

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

The results include:

a. Number of 'slots' filled

This variable concerned the number of possible friendship slots that the respondent filled in (maximum 24). There was a trend in the direction of the ex-institutional group listing fewer people who they would confide in than the comparison group. This difference however was not significant.

b. Number of different people listed

This variable reflected the number of different people listed in the whole

questionnaire. The ex-institutional group had a lower mean number of people listed than the comparison group, but this difference was not significant.

c. Satisfaction

There was no significant difference between the two groups in their ratings of satisfaction with their social support networks.

d. Self

The respondent had 8 opportunities to report reliance on themselves in the situations described in the questions, rather than turn to others. Although the figures indicate that the ex-institutional group rely on themselves more often than the comparison group, this difference was not significant.

e. Proportion of those entered who belong to a particular category of confidant

None of the confidant categories (family members, non-family members, peers, older generation or partners) yielded any significant differences between the ex-institutional and comparison group.

Interpersonal relationships

Inventory of Interpersonal Problems

Table 10 shows the total and sub-scale scores for the two groups on the IIP.

A two-tailed t-test gave a non-significant t-value for the difference between the means of the mean item total score, despite the ex-institutional group having a slightly raised mean in contrast to the comparison group.

The IIP also yields 8 subscale scores. None save one of these gave significant differences between the means of the ex-institutional group and the comparison group. This was the aggression subscale where the ex-institutional group rated themselves as more 'too aggressive' than the comparison group.

Table 10: Inventory of interpersonal problems scores

	Ex-institutional		Comparison		Statistic
	Mean	**S.D.**	**Mean**	**S.D.**	
Mean item score on IIP	1.3	0.78	1.1	0.50	N.S.
Scale 1: H.sociable[a]	1.5	1.1	1.3	1.1	N.S.
Scale 2: H.assertive	1.5	1.3	1.6	1.2	N.S.
Scale 3: Too aggressive [b]	1.4	1.00	0.9	0.70	t(43)=2.0*
Scale 4: Too open	1.3	1.0	1.3	0.7	N.S.
Scale 5: Too caring	1.4	1.0	1.0	0.6	N.S.
Scale 6: H.supportive	1.0	1.0	1.1	0.8	N.S.
Scale 7: H.involved	1.1	1.1	0.9	0.8	N.S.
Scale 8: Too dependent	1.1	1.0	1.0	0.9	N.S.

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

[a]: 'H.' represents 'It is hard for me to...'

[b]: 'Too.' Represents 'things I do too much'.

Adapted SSIAM Questionnaire

These items were looked at individually and as totals for each sub-section described below. See Table 11.

Table 11. Adapted SSIAM total and subscale scores.

SSIAM variables	**Ex-institutional**		**Comparison**		**Statistic**
Relationship difficulties in these areas:	**Mean**	**S.D.**	**Mean**	**S.D.**	
Job [a]	0.77	0.86	0.80	0.43	N.S.
Friends	1.81	0.71	1.67	0.59	N.S.
Family of origin	1.3	0.81	0.6	0.37	t(27.56)=3.7***
Partners [b]	0.98	0.66	0.74	0.59	N.S.
Children [c]	0.83	0.91	0.49	0.49	N.S.
Total mean score	1.3	0.68	1.0	0.35	t(43)=1.8, p=0.8

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

a n (comparison)=21, n (ex-institutional)=17
b n (both groups)=18
c n (comparison)=8, n (ex-institutional)=9

1. Questions relating to respondent's job

Neither the individual items nor the section mean score showed any significant differences between the ex-institutional and comparison group.

2. Questions relating to respondent's relationships with their friends

Neither the individual items nor the section total showed any significant differences between the ex-institutional and comparison group, although there was a trend in the direction of the ex-institutional group reporting more difficulties in this area than the comparison group.

3. Questions relating to respondent's relationships with their family of origin

The ex-institutional participants were found to have a significantly higher mean score than the comparisons, showing the ex-institutional group are more likely to judge themselves to have difficulties in their relationships with members of the family in which they grew up, than the comparison group.

When the nine items were analysed individually 6 items showed significant differences between the groups ('I generally don't confide with members of my family', 'I go out of my way to do the opposite of what my family wants me to do', 'I rarely turn to my family for love, advice and companionship', 'I tend to avoid seeing my family', 'I feel as though my family have let me down', 'I feel as though I've let my family down and been unfair to them'); 2 items approached significance at $p = .07$ and .09 ('I really don't get on with my family', 'I feel my family often do things which upset and worry me'); and one showed no significant difference (' I put the wishes of my family ahead of what I want').

As already outlined the ex-institutional group includes those who were adopted as well as those who were 'restored' to their biological parent. The past stages of the study indicate very different experiences of family relationships for these two

groups; the 'restored' individuals had far more difficult family relationships following restoration. On this basis the ex-institutional group was reduced to include only those who were adopted and was compared with the comparison group to see whether the difference between the groups disappeared when the 'restored' individuals were removed from the analysis. See Table 12 (ex-institutional adopted group, n = 18, comparison group, n = 23).

Table 12. Adopted versus comparison group on family subscale score.

	Ex-institutional Adopted		**Comparison**		**Statistic**
	Mean	**S.D.**	**Mean**	**S.D.**	
SSIAM family sub-score	1.33	0.82	0.61	0.37	t(22.48)=3.49**

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

The difference between the two groups remained significant after the 'restored' individuals were removed from the analysis.

4. Questions relating to respondent's relationships with their partners

The ex-institutional group report having more difficulties in this area than the comparison group, although these differences were not significant for either the individual items or the section total mean.

5. Questions relating to respondent's relationships with their children

The ex-institutional group reported more difficulties than the comparison group, but neither the individual items nor the section total showed any significant differences between the groups.

Although the statistically significant difference is in the family section, the highest mean score for both groups, indicating most difficulties, was in the section concerned with their relationships with their friends. The lowest score for the ex-institutional group is in the job section and the children section for the comparison group.

Overall total mean score for sections 1 to 5

A score was also calculated for the mean score on the questions answered. This value ($p=0.08$) although not quite significant indicates a trend where the ex-institutional group report more difficulties in their relationships with others.

Attachment relationships

Table 13 shows the group means for the three different attachment style questions.

Table 13. Romantic attachment style scores.

	Ex-institutional		Comparison		Statistic
Attachment style	**Mean**	**S.D.**	**Mean**	**S.D.**	
Secure/insec	2.1	1.9	2.5	1.4	N.S.
Secure/insec-avoidant	2.1	2.0	1.5	1.3	N.S.
Secure/insec-ambivalent	1.1	1.6	1.0	1.2	N.S.

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

The three attachment-style patterns:

1. Secure attachment pattern.

There was no significant difference between the groups, although the mean for the ex-institutional group was below that of the comparison group. This was in the direction that the ex-institutional group feel less secure than the comparison group in intimate relationships.

2. Insecure-avoidant attachment pattern.

A high score indicates more avoidant attachment pattern. A Mann-Whitney test of the two groups finds them not to be significantly different from one another,

although the trend is that the ex-institutional individuals judge themselves to be more insecure-avoidant than do the comparison group.

3. Insecure-ambivalent attachment pattern.

A high score indicates more insecure-ambivalent self-perception. Ex-institutional have a slightly higher mean indicating more common insecure-ambivalent self-perception, however this difference is not statistically significant.

The questionnaire also contained eight questions about the participant's pattern of relationships with others. These items were looked at individually and do not form a single score. A high score on this item means that this statement is very true for the respondent. The ex-institutional group did not differ significantly from the comparison on any of the items except item 8. This item states that 'I am more independent and self-sufficient than most people; I can get along quite well by myself'. See Table 14.

Table 14. Scores on question : "I am more independent and self-sufficient than most people; I can get along quite well by myself".

	Ex-institutional		**Comparison**		**Statistic**
	Mean	**S.D.**	**Mean**	**S.D.**	
Indep. & self-suffic.	4.0	1.4	3.3	1.0	U=148.5*

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

This result indicates that the ex-institutional group is more likely to feel themselves to be independent and more self-sufficient than others, than the comparison.

General mental health

Table 15 shows the scores of the two groups on the General Health Questionnaire. There was no significant difference between the two sample means. Neither did the four subscales, somatic symptoms, anxiety and insomnia, social dysfunction and severe depression yield scores which differed significantly in their group means.

Table 15. Score on General Health Questionnaire

	Ex-institutional		**Comparison**		**Statistic**
	Mean	**S.D.**	**Mean**	**S.D.**	
Total score	19.4	17.0	20.3	8.3	N.S.

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

Composite standardised score

The scores on the four main measures (General Health Questionnaire score (GHQ), self-esteem score (RSE), interpersonal problem score (IIP), and SSIAM score) were converted to standardised z scores and summed to form a composite score, indicating overall adjustment. (As is demonstrated below these four variables were all positively correlated with each other). Table 16 shows the group scores on this composite variable. A high score indicates a greater level of difficulty.

Table 16. Composite standardised score.

	Ex-institutional		Comparison		Statistic
	Mean	**S.D.**	**Mean**	**S.D.**	
Composite score	0.198	4.45	-0.189	2.28	U=224.0, N.S.

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

A comparison of the two groups on this composite score did not give statistically significant differences, although there was a trend in the direction of the ex-institutional group having higher scores and greater variance. The variances were not equal with a significance of p=.002.

Comparisons of variance

The difference in the variance of the distributions of scores on the four main standardised adult measures and the composite score were tested for significance. Table 17 shows the results.

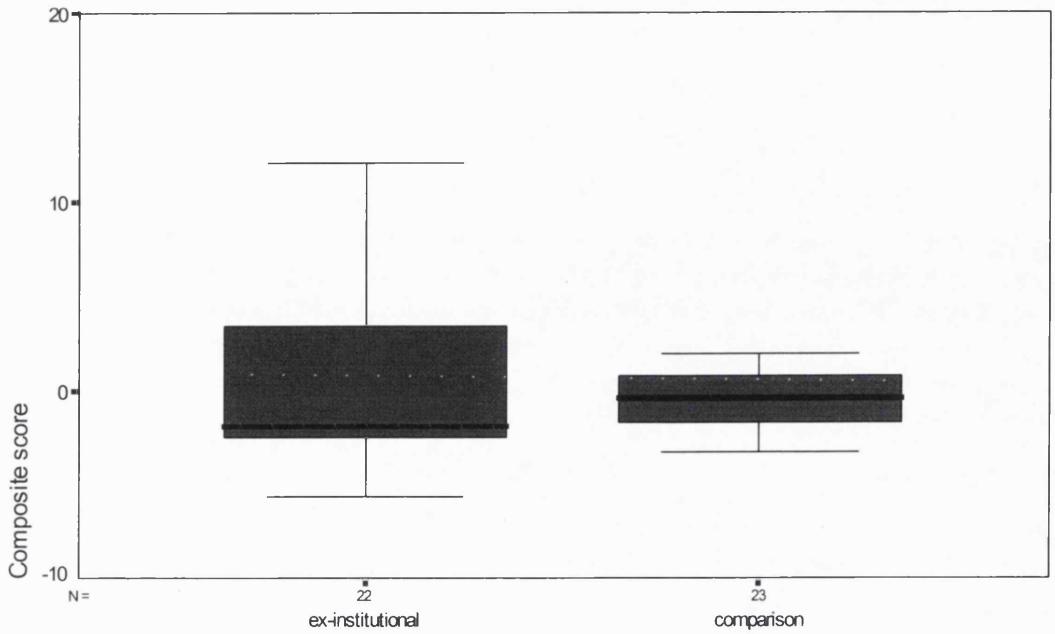
Table 17. Levene's test for the equality of the variance.

	Ex-institutional S.D.	Comparison S.D.	F statistic
Composite score	4.45	2.28	F=11.12**
GHQ z-score	1.29	0.63	F=8.47**
IIP z-score	1.20	0.77	F=2.26, p=0.14
RSE z-score	1.19	0.77	F=9.30**
SSIAM z-score	1.23	0.64	F=6.85*

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

These results show that there were significant, and often very significant, differences between the variances of the two experimental groups, such that the ex-institutional group consistently had greater variance than the comparison group. Only the scores on the IIP did not show a significant difference between the group variances. Figure 1. shows a 'boxplot' of the distribution of the composite score for both groups.

Figure 1. Box plot of composite scores.



The 'box' contain the 50% of values that fall between the 25th and 75th percentile. The lines either side of the 'box', or 'whiskers', extend to the highest and lowest values of the distribution (excluding outliers), and the line dissecting the boxes indicates the median.

The variance of the composite score was compared for the three groups: early-adopted, non-early-adopted and comparisons. The variance for these groups were 25.3, 13.1 and 5.2 respectively, with means of 0.46, 2.06 and –0.19 respectively.

Sample sub-group analysis

The ex-institutional group was further examined to see whether the participants fell into two distinct groups with divergent characteristics. However, given the small group sizes involved the findings should be viewed with caution.

Police contact

If the two groups is divided into those who have a history of being in trouble with the police since 16 and those who do not, ANOVAs show no significant differences on the main variables, namely SSIAM, IIP, RSE and GHQ.

Subgroups of the ex-institutional group

Analyses were performed on the ex-institutional group by splitting them into two groups based on different types of early experience (as was done in the previous stages of this study). One group, of fourteen participants, was made up of the largest homogeneous group in the sample: those adopted before the age of four and a half. The other group, with eight participants, was composed of the remainder of ex-institutional participants. These were characterised by either late adoption, or restoration to their biological mother or a mixture of institutional care until an older age (i.e. those who had experienced greater adversity). Analyses performed on these two groups did not yield any significant differences between the groups on the main adult variables. However the small sizes of the two groups may have meant that such differences were difficult to detect.

Non-early adopted versus the comparison group

If we compare the comparison group with those non-early adopted individuals we find no statistically significant differences although there was one notable trend. On the total score on the SSIAM the ex-institutional score more highly for interpersonal problems with a p-value of 0.086.

Men versus women

When men and women from both groups were compared by means of an ANOVA, no differences were found on the main measures. In all cases but one the women tended to score more highly than the men, indicating a trend towards greater difficulties for the women. The exception was where the comparison group men scored more highly than the women on the SSIAM.

Sex and marital status

There was no effect of sex on marital status in either the ex-institutional or the comparison group. However the ex-institutional women had a greater likelihood of becoming parents compared to men (Chi sq = 8.53**). This trend is present for the comparison group but is not significant.

With and without children of their own

When the two groups were divided into those with children and those without, no significant differences were found on the main measures of IIP, SSIAM, GHQ and RSE.

Relationship status: single versus in a relationship

The group composite standardised scores were compared for those in a relationship and those who were single. Table 18 shows the results.

Table 18. Composite standardised scores and relationship status

	Single		In relationship		Statistic
Standardised composite score	Mean	S.D.	Mean	S.D.	
Ex-inst. group[1]	2.59	5.60	-1.17	3.08	t(20)=2.05*
Comparison group[2]	0.86	3.31	-0.65	1.58	t(21)=1.50, N.S.

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

[1] n = 8 and n = 14 respectively
[2] n = 7 and n = 16 respectively

An ANOVA found a main effect for the relationship status with F value of 6.38*, but not a significant interaction effect of group and relationship status. This indicates that both ex-institutional and comparison individuals who were single reported more difficulties than those with partners.

Relationships between the adult data variables

The correlations between the adult variables were investigated. Pearsons correlation coefficient was used as the coefficient of choice, as recommended by Howell (1997). Table 19 shows the correlations between the four main adult data variables.

Table 19. Correlations between the main adult measure scores for the ex-institutional group (in lower triangle, in **bold**) and the comparison group (in upper triangle, in *Italics*).

	Correlation Coefficients			
	GHQ total	IIP total	SSIAM total	RSE
GHQ total		*0.15, N.S.*	*0.59***	*0.45**
IIP total	**0.76*****		*0.60***	*0.76****
SSIAM total	**0.76*****	**0.85*****		*0.44**
RSE	**0.74*****	**0.67*****	**0.76*****	

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

In all but one of the above correlations the ex-institutional group gave more strong correlations between these variables than did the comparison group. In this case the comparison group showed a bigger association between the IIP and the RSE than the ex-institutional group. The total number of life events did not correlate significantly with any of these main variables.

The difference between the two correlation coefficients of the ex-institutional and comparison group were tested using Fisher's z (Howell, 1997) to determine whether the differences were statistically significant. The only significant difference between the two groups was for the correlations between the GHQ and the IIP where z = 2.63**.

Attachment style items

The three attachment style questions (secure, secure/insecure avoidant, secure/insecure ambivalent) did not correlate significantly with each other in the ex-institutional group or the comparison group.

Measures of satisfaction

Table 20 shows the correlations between the two measures of satisfaction with social support, the satisfaction score on Sarason social support network questionnaire and the total satisfaction score on the FIQ relating to overall satisfaction with two selected friendships.

Table 20. Correlations between two measures of satisfaction with social support.

	Ex-institutional group	**Comparison group**
Correlated variables	**Correlation coefficient**	**Correlation coefficient**
Satisfaction (SSQ) x satisfaction (FIQ)	-0.30, N.S.	0.52*

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

This shows that these two satisfaction measures are not significantly correlated in the ex-institutional group, although they are significantly associated in the comparison group. This difference in correlation coefficient was significant (z = -2.76**).

Correlations between the 'Family' section of the SSIAM and the other main measures

Table 21 shows the correlations between the 'family' section of the SSIAM and the IIP.

Table 21. Correlation between the total family section score on the SSIAM and the scales of the IIP.

	Ex-institutional group	**Comparison group**	
Variables correlated with Family section of SSIAM	**Correlation coefficient**	**Correlation coefficient**	**Fisher's z**
IIP total	0.50*	0.29, N.S.	N.S.
IIP:1: H. Sociable	0.35*	0.02, N.S.	N.S.
IIP:2: H. Assertive	0.34*	0.15, N.S.	N.S.
IIP:3: T. Aggressive	0.48*	0.47*	N.S.
IIP:4: T. Open	0.17, N.S.	-0.38, N.S.	N.S.
IIP:5: T. Caring	0.47*	0.06, N.S.	N.S.
IIP:6: H. Supportive	0.45*	0.01, N.S.	N.S.
IIP:7: H. Involved	0.28, N.S.	0.04, N.S.	N.S.
IIP:8: T. Dependent	0.57**	0.15, N.S.	N.S.

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

The total score and six of the eight subscale scores were significantly correlated with the Family score for the ex-institutional group, whereas only one subscale was significantly associated in the comparison group.

Table 22 shows the correlations between the 'family' section of the SSIAM and the other main measures and their sub-scales.

For the ex-institutional group the self-esteem score is significantly correlated with the Family section score, but the comparison group score is not.

Both the ex-institutional and comparison group total scores on the GHQ are significantly correlated and with more or less equal strength to the Family section score. However the correlations in terms of the association with the separate subscales of the GHQ are less symmetrical.

Although both groups show significant correlation between the Family section score and the total score on the SSIAM as would be expected, only the ex-institutional group shows any significant correlation between the Family section score and any other sub-scale score, namely the section on interpersonal difficulties experienced in the work place.

Table 22. Correlations between the total score on the Family section of the SSIAM and the RSE, GHQ and IIP and their subscales.

	Ex-institutional group	Comparison group	
Variables correlated with Family section of SSIAM	**Correlation coefficient**	**Correlation coefficient**	**Fisher's z**
RSE	0.52*	0.29, N.S.	N.S.
GHQ total score	0.49*	0.51*	N.S.
GHQ:A: somatic	0.41, N.S.	0.14, N.S.	N.S.
GHQ:B: anxiety/insomnia	0.48*	0.34, N.S.	N.S.
GHQ:C: social dysfunction	0.31, N.S.	057**	N.S.
GHQ:D: severe depression	0.58**	0.33, N.S.	N.S.
SSIAM total	0.66**	0.52*	N.S.
SSIAM D: Work	0.55, N.S.	-.06, N.S.	z = 2.1*
SSIAM E: Friends	0.16, N.S.	0.15, N.S.	N.S.
SSIAM G: Partner	0.31, N.S.	0.20, N.S.	N.S.
SSIAM H: Children	0.10, N.S.	0.62, N.S.	N.S.

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

Analysis including the 16-year-old data

Only 19 of the 22 ex-institutional participants taking part in the 30 year old study were seen at 16. This means that for the purpose of correlations between the 16 and 30 year old data the ex-institutional sample size is 19. All of the 23 comparison participants seen at 30 were also seen at 16.

Table 23 shows the differences between the two groups on the five 16-year-old variables.

Table 23. Group differences on 16-year-old variables

	Ex-institutional		**Comparison**		**Statistic**
	Mean	**S.D.**	**Mean**	**S.D.**	
PIPS	11.95	7.23	7.61	4.77	t(30.8)=2.24*
AIPS	18.41	3.63	16.04	4.25	t(40)=1.92, p=.062
L & L	41.91	15.38	41.22	14.96	N.S.
Rutter A	8.69	6.41	7.09	4.48	N.S.
Rutter B (16)	8.36	8.40	3.47	3.77	t(23.94)=2.35*

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

There were no significant inter-correlations between the 16-year-old variables in both groups except between the PIPS and the Rutter A in the ex-institutional group (0.57*).

Table 24 shows the correlations between the PIPS (adolescent's parent interview problem score) and the sub-scales of the GHQ.

Table 24. Correlation of GHQ sub-scales with PIPS score at age 16.

	Ex-institutional	**Comparison**	
PIPS correlated with:	**Correlation coefficient**	**Correlation coefficient**	**Fisher's z**
GHQ scale A: somatic symptoms	0.30, N.S.	-0.05, N.S.	N.S.
GHQ scale B: anxiety and insomnia	0.52*	0.29, N.S.	N.S.
GHQ scale C: social dysfunction	0.48*	0.02, N.S.	N.S.
GHQ scale D: severe depression	0.56*	0.21, N.S.	N.S.

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

The Parent Interview Problem score (PIPS) at 16 years showed significant positive correlation with three of the four sub-scales of the GHQ-28 for the ex-institutional group, as shown in Table 24. Significant correlations however were not found between the same variables for the comparison group.

Table 25 shows the correlations between the PIPS score at 16 and the four main adult variables.

Table 25. Adult variable correlations with PIPS score at age 16.

	Ex-institutional	Comparison	
Variables correlated with PIPS score (16)	**Correlation coefficient**	**Correlation coefficient**	**Fisher's z**
GHQ total score	0.63**	0.29, N.S.	N.S.
Self-esteem score	0.53*	0.11, N.S.	N.S.
IIP total score	0.45*	0.35, N.S.	N.S.
SSIAM total score	0.45, p=.052	0.33, N.S.	N.S.

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

In the ex-institutional group, the PIPS score at age 16 showed significant positive correlations with three of the main variables in the 30 year-old data, and approaching significance for the fourth. The comparison group on the other hand showed no significant correlations between these variables.

Table 26 shows the correlations between the Rutter A score at 16 and the four main adult measures.

Table 26. Adult variable correlations with Rutter A score at age 16.

	Ex-institutional	Comparison	
Variables Correlated with Rutter A (16)	**Correlation coefficient**	**Correlation coefficient**	**Fisher's z**
GHQ total score	0.31, N.S.	0.52**	N.S.
RSE total score	0.57**	0.32, N.S.	N.S.
IIP total score	0.14, N.S.	0.24, N.S.	N.S.
SSIAM total score	0.13, N.S.	0.44*	N.S.

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

The ex-institutional group showed a substantial positive correlation between the score on the Rutter A at 16 and the self-esteem inventory. The comparison group showed no such correlation with the self-esteem scores. However the comparison group showed a significant correlation with the GHQ-28, in contrast to a non-significant correlation for the ex-institutional group. Only the comparison group showed a significant correlation between the total SSIAM score and the Rutter A score at 16. The ex-institutional group did not show any such significant correlation. Neither the ex-institutional nor the comparison group gave significant correlations between the total score on the Rutter A questionnaire at 16 and the total score on the IIP at 30 years of age.

Table 27 shows the correlations between the Rutter B score at 16 and the SSIAM total score in adulthood.

Table 27. Correlation between SSIAM score and Rutter B score at age 16.

	Ex-institutional	Comparison	
Correlated variables	**Correlation coefficient**	**Correlation coefficient**	**Fisher's z**
Rutter B (16) x SSIAM (30)	0.05, N.S.	0.47*	N.S.

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

The Rutter B total score at 16 did not show a significant correlation with the total score on the GHQ, the RSE, the IIP or the SSIAM for either the ex-institutional or comparison group. However, the comparison group did show a significant (Pearson) correlation with the total SSIAM score, which was not found for the ex-institutional group.

The were no significant correlations for either group between the AIPS and the adult RSE, IIP, GHQ or SSIAM total scores.

Table 28 shows the correlations between the Lindsay and Lindsay social difficulties at age 16 and the SSIAM scores.

Table 28. Correlations between SSIAM scores in adulthood and social difficulties scores at age 16.

	Ex-institutional Correlation coeffic.	**Comparison Correlation coeffic.**	**Fisher's z**
SSIAM total	0.59**	-0.06, N.S.	2.20*
SSIAM Job scale	0.64*	-0.21, N.S.	2.60**
SSIAM Family scale	0.65**	-0.41, N.S.	3.54***

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

These figures show that only the ex-institutional group showed any significant correlations between the score at 16 on the social difficulties questionnaire and scores on the adapted SSIAM in adulthood. Strong correlations were found in the area of work and family. Correlations were not significant in the areas of relationships with partners, children or friends.

Table 29 shows the correlations between the Lindsay and Lindsay social difficulties questionnaire score at 16 and the IIP in adulthood.

Table 29. Correlations between IIP total and sub-scale scores in adulthood and social difficulties at age 16.

	Ex-institutional	**Comparison**	**Fisher's z**
IIP total	0.52*	0.34, N.S.	N.S.
Sub-scale1: H.sociable	0.48*	0.49*	N.S.
Sub-scale 3: T.aggressive	0.50*	0.09, N.S.	N.S.
Sub-scale 7: H.involved	0.47*	0.44*	N.S.
Sub-scale 8: T.dependent	0.53*	0.29, N.S.	N.S.

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

These figures show that the ex-institutional group showed more significant associations between social difficulties scores at 16 and scores on the IIP in adulthood. Where the comparison group also showed significant correlations the two groups did not differ greatly from one another in the strength of the association. However only the ex-institutional group showed strong and significant correlations with sub-scale 3 and 8, and the total score on the IIP.

Table 30 shows the different mean scores at age 16 (on the Rutter B) between the two groups according to whether the individuals have a police history at age 31.

Table 30. Scores on Rutter B at 16 and history of police involvement in adulthood.

	Police history		no police history		Statistic
	Mean	**S.D.**	**Mean**	**S.D.**	
Ex-institutional scores on Rutter B(16) [1]	12.96	9.93	5.01	5.35	t(9.95)=2.06, p=.067
Comparison scores on Rutter B (16) [2]	4.67	4.16	3.29	3.79	N.S.

[1] ex-institutional group n = 8 and 11
[2] comparison group n = 3 and 20

T-tests showed no significant differences between those with and without a police history on any of the variables at 16. However, scores on the Rutter B approached significance.

Caution should be exercised in the interpretation of these findings given the small group sizes.

Analysis including the 8-year-old data

Correlations between the 8 and 30 year old data were only possible for the ex-institutional group since the comparison group seen at 8 were a different sample from the comparison group seen at 16 and 30. Therefore longitudinal data from age 8 is not available for this comparison group.

All 22 of those taking part in the 30 year old study were seen at 8 years old. However some data was not provided by the teacher on one of the sample at 8,

namely the score on the behavioural checklist and on the social relations questionnaire. This means that the sample size for these comparisons is 21.

Table 31 shows the correlations between the Rutter B at age 8 and the four main adult variables.

Table 31. Correlation of four main adult variables with behavioural checklist score at age eight (Rutter B-8) (n = 21).

Variables correlated with total score on behavioural checklist at age 8 years.	**Pearson Correlation Coefficient**
GHQ : total score	0.44*
IIP : total score	0.52*
RSE : total score	0.53*
SSIAM : total score	0.58**

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

Since data was not available on the comparison group at this stage in the study correlations could only be made within the ex-institutional group between those who were seen at age eight and again in the current follow-up study.

Significant correlations were found between the total score on the behavioural checklist at age eight and the total scores on the GHQ-28, the IIP, the RSE and the SSIAM as set out in Table 31.

The teacher questionnaire section on social relations yielded no significant correlations with the GHQ-28, the IIP, the RSE or the SSIAM from the 30 year old data. The IIP subscale 4 was correlated with this measure (-0.38) but with only approaching significance of 0.093 (Pearson's coefficient). IIP subscale 5 was significantly correlated with the social relations score with a Spearmans coefficient of 0.44*. Only the Family subscale score of the SSIAM was significantly correlated with a Spearman's coefficient of 0.45*.

Table 32 shows the difference in scores at age 8 according to a history of police contact in adulthood.

Table 32. Difference in ex-institutional scores at 8 according to history of police contact by 31 (ex-institutional: n = 9; comparison: n = 12).

	Ex-institutional police history		**Ex-institutional no police history**		**Statistic**
	Mean	**S.D.**	**Mean**	**S.D.**	
Rutter B-8	15.0	2.12	9.39	2.51	U=33.0, N.S.
SocRel-8	3.67	2.26	2.00	2.09	U=28.5, p=.067

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

When the ex-institutional group are divided into two groups, those who at 31 reported a history (since age 16) of involvement with the police and compared on their scores at 8, it was found that there was no difference on scores on the behaviour checklist, but there was a difference approaching significance on their social relationships score. In both comparisons there was a trend such that those with a history at age 31 of contact with the police had higher problem scores for behaviour and social relations at 8 years than those without a police history.

Correlation between the 8 and 16-year-old variables

Table 33 shows the correlations between the 8 and 16-year-old variables. The Rutter B-8 was highly correlated with the social relationships score at 8, with the Rutter A and the PIPS at 16. The social relationships score at 8 was significantly correlated only with the Rutter A at 16.

Table 33. Correlations between 8 and 16-year-old variables

	Correlation Coefficient	
	Rutter B-8	SocRel.-8
SocRel.-8	0.73***	
Rutter A-16	0.59**	0.50*
Rutter B-16	0.27, N.S.	0.43, p=.065
AIPS-16	0.41, p=.081	0.06, N.S.
PIPS-16	0.57*	0.26, N.S.
L&L-16	0.31, N.S.	0.10, N.S.

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

Characteristics of those who did not take part

The characteristics of those who did and did not take part in the adult phase of the study were investigated, based on the available data from ages 8 and 16.

16-year-old data

16-year-old information was available on 19 of the 22 ex-institutional group seen at 30, (the 3 others were last fully seen at 8), and 11 of those 14 ex-institutional participants who were included but did not take part in the 30 year old study (the other 3 have no data at 16). 16-year-old data was available on all 23 of the

comparison group who did take part, and 7 of the 8 comparisons who did not take part (information missing on one).

Table 34 shows the 16-year-old scores of those from the ex-institutional group who took part and those who did not take part in adulthood. The measures include scores on the Rutter A, the Rutter B and the Lindsay and Lindsay social difficulties questionnaire.

Table 34. 16-year-old data for those ex-institutional group participants who did (n = 19) and did not take part (n = 11) in the adult phase of the study.

	Ex-institutional Taking part		**Ex-institutional Drop-out**		**Statistic**
	Mean	**S.D.**	**Mean**	**S.D.**	
Rutter A total	8.69	6.41	8.17	7.05	t(28)=0.20, N.S.
Rutter B total	8.36	8.40	12.45	7.92	t(28)=-1.31, N.S.
L & L	41.91	15.38	35.65	16.68	t(28)=1.04, N.S.

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

There were no significant differences between the means of the two groups, those who took part and those who did not, on the measures available at age16.

Table 35 shows the same information, but for the comparison group.

Table 35. 16-year-old data for those comparison group participants who did (n = 23) and did not take part (n = 7) in the adult phase of the study.

	Comparison Taking part		Comparison Drop-out		Statistic
	Mean	**S.D.**	**Mean**	**S.D.**	
Rutter A total	7.09	4.48	5.29	4.42	t(28)=0.94, N.S.
Rutter B total	3.47	3.77	5.58	4.84	t(28)=-1.22, N.S.
L & L	41.22	14.96	28.82	7.92	t(19.75)=2.09**

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

There were no differences between these two groups on their scores on the three Rutter A sub-scales, Rutter A total score or Rutter B total score. The two groups however did distinguish themselves on the social difficulties scores at 16. Those in the comparison group who took part in the adult study had scored more highly than those who did not take part.

8-year-old data

8-year-old information is available for all 22 ex-institutional participants who took part in adulthood, although their teachers left out some relevant responses on two of the children. Information is also available on 13 of the 14 who did not take part at adult stage, although again the teacher left out some information on one of the participants. Since this comparison group was first included at 16 years there is no 8-year-old data on them.

Table 36 shows the different 8-year-old scores for those of ex-institutional who did and did not take part in the adult follow-up. The measures include the Rutter B (age 8) and the social difficulties questionnaire.

Table 36. 8-year-old data for those ex-institutional participants who did and did not take part in the adult phase of the study.

	Participants		**Drop-outs**		**Statistic**
	Mean	**S.D.**	**Mean**	**S.D.**	
SocRel-8	2.72	2.27	3.59	2.09	t(31)=-1.09, N.S.
Rutter B-8	11.79	8.10	13.16	7.02	t(31)=-0.49, N.S.

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

n (participants)=21
n (drop-outs)=12

There were no significant differences between the means of the two group, those who took part and those who did not, on either of the two measures available at age 8, although there is a trend in the direction of those who dropped-out having higher scores on both measures.

Summary of characteristics of those who dropped-out of the adult follow-up

Although it appears that there were higher attrition rates for the 'restored' and late institutional care groups, testing of the scores at 8 and 16 with those who did take part in this study found no significant differences between those who did and those who did not take part, although some of the trends were in the direction of the drop-

outs showing more problems than those who took part (Rutter B-8, social relations-8, Rutter B-16, but not Rutter A-16 and Lindsay & Lindsay-16). The comparison group drop-outs although no different on the Rutter A and B, scored significantly less than the participants on the 16-year-old social difficulties questionnaire.

CHAPTER 4

DISCUSSION

This study aimed to examine whether there were any long-term effects of early institutional care. A group of children who had spent at least 18 months in their first two years of life in residential nurseries were followed-up at 31 years of age. This cohort of children had already been the subject of longitudinal studies when aged 2, 4 ½, 8 and 16 years (Tizard & Joseph, 1970; Tizard & Tizard, 1971; Tizard & Rees, 1974; Tizard & Rees, 1975; Tizard, 1977; Tizard & Hodges, 1978; Hodges & Tizard, 1989a; Hodges & Tizard, 1989b). Following their time in institutional care these children were later either adopted or 'restored' to their biological parent.

The present study took the form of a natural experiment that aimed to examine whether the marked lack of continuity in primary caregivers in the first years of life had lasting effects. The earlier studies suggested that most of the ex-institutional children were able to form strong attachments to their parents, particularly when this home environment (adopted or 'restored') was good and the parents were interested and motivated to build the new relationship with the child. However the ex-institutional children did experience more difficulties in their relationships with their peers, were more oriented to adult attention and had more behavioural and emotional problems than their matched comparisons. The present study followed this group of children into their early adulthood to determine whether there were any enduring effects of this early institutional care.

MAIN FINDINGS

In this study taken as a whole the ex-institutional group reported themselves to be very similar to the comparison group on the majority of measures. However there were some significant differences between the two groups, indicating some enduring effects of their early relationship history.

Descriptive and inferential statistical results

In the areas of demographic details, there were no significant differences between the groups in terms of relationships status (married or single), or on the number of children, although there was a non-significant trend in the direction of the ex-institutional group having more children than the comparison group.

The ex-institutional group differed from the comparison group in terms of housing arrangements, renting more than owning their own house. There was also a non-significant trend in the direction of more ex-institutional group individuals being on benefits than the comparison group. There was a significant difference between the groups on rates of being in trouble with the police. The ex-institutional group had significantly higher levels of such contact than the comparison group.

In terms of educational qualifications and socio-economic status based on profession, the ex-institutional group did not differ significantly from the comparison group, although there was a trend in the direction of the ex-institutional group having lower qualifications and lower SES than the comparison group. For their partners, there was a significant difference from the partners of the comparison group, in terms of lower qualifications and lower SES. There was also a trend in the direction of the

ex-institutional group having partners with lower occupational status than themselves.

In the area of interpersonal relationships the ex-institutional group experienced significantly greater difficulties in their adult relationships with the families in which they grew up. They also experienced greater difficulties in their relationships over all domains, but this finding just fell short of significance. There were however trends in the direction of the ex-institutional group having greater difficulties in their relationships with their friends, partners and children. They also reported a trend in the direction of greater difficulties in their interpersonal style of relating than the comparison group. The ex-institutional group also rated themselves as being too aggressive in their interpersonal relations, and significantly more so than the comparison group. They also rated themselves as being significantly more independent and self-sufficient than the comparison group. This was corroborated by a trend in the direction of the ex-institutional group relying on themselves more often than turning to others, when compared with the comparison group. They also showed non-significant trends in the direction of having fewer friends and older friends than the comparison group. The ex-institutional group also scored as having more rewarding intimate friendships, with higher levels of companionship than the comparison group; a finding which just fell short of significance.

In their romantic attachments with partners there was a non-significant trend for the ex-institutional group to be less secure and more insecure/avoidant and insecure/ambivalent than the comparison group.

The ex-institutional group also showed a trend of having higher self-esteem than the comparison group. There was no significant difference between the groups on the number of life events experienced in the last five years, although there was a trend in the direction of the ex-institutional group having more than the comparison group.

In terms of their physical and mental health, the ex-institutional group did not differ significantly from the comparison group, although there was a trend in the direction of the ex-institutional group having more contact with medical in- and out-patient services and with mental health services. However, there was no significant difference between the groups on their scores on a psychiatric screening measure.

There was also significant difference between the groups in terms of the variance of the distribution of several key variables. The ex-institutional group showed significantly greater variances than the comparison group.

Correlational results

Overall the ex-institutional group showed stronger relationships between the different areas of measurement and associations between them over time than the comparison group.

Correlations in the adult data

It was noticeable that the ex-institutional group showed greater associations between the four measures in early adulthood (self-esteem, general mental health, interpersonal styles of relating and interpersonal relationships) compared to the comparison group. Only one of these differences in correlation coefficients was

significant (between the IIP and the GHQ), however the small sample sizes should be borne in mind as possibly contributing towards this. The ex-institutional group also showed significant correlations between their interpersonal problems with their families and the four main measures. The comparison group only showed significant correlations with the GHQ and SSIAM. There was a significant difference in correlation coefficient between the two groups on the two independent measures of satisfaction with their social support. The two measures were fairly strongly correlated in the comparison group but not so for the ex-institutional group. The responses to the three questions about attachment style were not significantly correlated with each other in either of the two groups, which would indicate problems with this form of measuring romantic attachment style.

Correlations with the 16-year-old data

The two groups were distinguished at 16 by their scores on the Rutter B, the Parent Interview Problem score and the Adolescent Interview Problem score. The ex-institutional parents problems score at 16 was significantly correlated with the IIP, GHQ, RSE and the SSIAM scores, in contrast to the comparison group whose problem score was not significantly correlated with any of these four measures. The ex-institutional participant's Interview Problem score at 16 was only significantly correlated with the GHQ in adulthood, and not with the RSE, IIP or the SSIAM. Whereas the comparison group problem score was not significantly correlated with any of these four variables.

The 16-year-old social difficulties score for the ex-institutional group was significantly correlated with the IIP and SSIAM scores, whereas the comparison group showed none of these correlations. This difference was significant.

The ex-institutional Rutter B score at 16 was not significantly correlated with any of the IIP, RSE, GHQ or SSIAM, and the Rutter A was only significantly correlated with the RSE in adulthood. The comparison group Rutter B score was significantly correlated with the adult score on the SSIAM, as was the Rutter A, which was also significantly correlated with the GHQ.

Correlations with the 8-year-old data

8-year-old data was only available for the ex-institutional group. The Rutter B at 8 years was significantly correlated the 8-year-old social relations score and with the four main adult variables, IIP, GHQ, RSE and SSIAM. The social relations score was only significantly correlated with the SSIAM Family score.

DISCUSSION OF RESULTS

The present study presented a unique opportunity to study the long-term outcome for a special group of children who had unusual early childhood experiences consisting of a lack of early attachment relationships, in the context of otherwise good care. The limited literature available suggests that these children would inevitably experience severe long-term difficulties as a result of their early adverse childhood experiences. The main findings of the present study, however, suggest that it is by no means inevitable that these individuals would suffer later severe difficulties. The picture that evolves from this study instead suggests remarkable recovery, in that

these individuals are to a large degree functioning at a level barely distinguishable from the comparison group of non-institutionalised individuals. This includes general mental health, interpersonal relationships of all kinds, and self-esteem as well as on the more objective indicators such as marital status, qualifications or occupational status, and having children of their own.

However this study also provides evidence of some enduring effects of their early institutional experience. Most notably, the ex-institutional group have significantly greater difficulties getting on with their families, have more contact with the police, and report being more aggressive and self-sufficient than their comparison counterparts. The findings of this study will now be discussed with respect to the current literature in this field.

Interpersonal relations

The literature available suggested that adults with the early experiences outlined in this study would experience great difficulties in maintaining their intimate relationships (Bowlby, 1951; Goldfarb, 1947), suggesting that family relationships, romantic relationships/life partnerships and other close peer relationships would pose severe problems for this group. Although at the age of 16 years old these ex-institutional individuals had mostly developed good relationships with their parents, they showed themselves to differ from a comparison group in some areas of interpersonal relationships (Hodges & Tizard, 1989b). They were noted to have more difficulties getting on with their peers, fewer close or confiding peer relationships and showed greater orientation towards adult attention. It was

hypothesised that these difficulties could still be present, and could show themselves in the form of higher levels of difficulties in interpersonal relationships, particularly in relation to peers, fewer friendships with peers, and less subjective sense of support, adequacy or satisfaction with their peer relationships.

As adolescents, the ex-institutional group was in general more oriented towards adult attention both inside and outside the family. They were more demanding of attention from their teachers, and teachers reported them as having more behaviour problems than comparisons. It was therefore hypothesised that as adults the ex-institutional group would still be more oriented to the attention of those in the above generation, either in the form of a preference for friendships with their parents, older friends or older colleagues.

In this study the Sarason questionnaire took the form primarily of a objective measure of social support networks and showed that the ex-institutional individuals did not differ significantly from comparisons in terms of have more confidants in the older generation, or fewer friends of their own age group, or overall less friends in their support network. They were also as likely as the comparison group to be in relationships or married, indicating that they were able to establish and maintain intimate and enduring relationships with a peer and partner. The FIQ, a more subjective questionnaire also supported this evidence. However the FIQ questionnaire also showed another surprising characteristic approaching significance between the two groups. The ex-institutional group rated themselves as having better overall relationships with close confidants. This may reflect that either they do have more successful relationships with close friends or that these individuals experience

their friendships as more satisfying and rewarding than do the comparison group. It is possible that the ex-institutional group value their relationships with friends more highly than the comparison group, perhaps given their contrasting history of a early lack of such friendships. If this was the case this could support the work of Elder (1979) who argued that childhood adversities could in some cases strengthen an individuals coping skills, as for example, by 'positive comparison' whereby qualities in their adult life still compared favourably with the extreme hardship experienced in childhood.

The two satisfaction measures contained within this questionnaire (as part of the Sarason social support questionnaire (overall satisfaction) and as a sub-scale on the Friendship and Intimacy questionnaire (with respect to two nominated best-friends)) provide an opportunity to look at the internal consistency of the participants responses. As seen in the results section, the comparison group shows a relatively strong correlation between the two measures indicating a fairly consistent response to the two satisfaction measures. However the two satisfaction measures were not significantly correlated in the ex-institutional group. Although it is quite possible that the two measures are measuring slightly different aspects of satisfaction with social support, the coherence seen in the comparisons appears not to be present in the ex-institutional group. Perhaps the ex-institutional participants have a couple of particularly good friendships towards which they feel somewhat differently to their overall social support network. It appears that their satisfaction with particular friendships is not generalisable across other friendships.

The SSIAM also provided information on the more subjective experience of interpersonal relationships in a variety of domains such as home, work, family, children and friends. The ex-institutional group showed higher levels of difficulties when these different domains were considered together, falling however just below significance. This indicates, as was predicted, that adults with this early history do encounter difficulties in their interpersonal relationships.

Taking the different domains separately, there were no significant differences between the groups for relationships within their work place. This indicates that the ex-institutional group did not experience any particular difficulties with figures of authority or peers within the work environment. Nor were there significant differences between the groups on their relationships with peer friends. However it is notable that both groups showed greatest difficulties in this domain compared to the others, with the ex-institutional showing slightly more problems, giving some support for the persistence of peer relationship difficulties. The ex-institutional and comparison groups did not differ significantly either on scores for relationship with their partner or with their children although the sample sizes were low for these categories. The trend of the scores however in both these groups showed the ex-institutional group as experiencing more difficulties than the comparison group. This non-significance of this result was also somewhat unexpected, since difficulties with intimate relationships was strongly suggested by the theories and evidence concerning the long-term effects of early institutional care. Similarly since the ex-institutional group suffered a very disrupted early childhood, it was expected that difficulties might arise when faced with bringing up their own children. But the evidence suggests that this is not the case, or else only to a small degree. Although

not significant, the ex-institutional group did shows higher levels of interpersonal problems than the comparison group overall and for the sections to do with partners, friends and children, suggesting that some of the characteristics present at 8 and 16 were also present but to a lesser degree in early adulthood.

The ex-institutional group did however report experiencing more difficulties relating with their family in which they grew up (adoptive or 'restored') when compared to the comparison group. These difficulties included not confiding in their family, being oppositional towards their families wishes, rarely turning to their family for love, advice and companionship, avoiding seeing them, feeling that their family has let them down, not getting on with them, feeling as though they have let their family down and been unfair to them, and feeling that their family does things that upset and worry them. These questions are described by the SSIAM authors as indicating significant levels of friction and distress (Gurland et al., 1972). This is an interesting result. At 8 and 16 it was reported that the ex-institutional children had in general good relationships with their family (Tizard & Hodges, 1978; Hodges & Tizard, 1989). Given their history it was surprising that these children appeared to be able to form deep attachments with their 'new' parents. However whilst at 16 years of age the pattern was that their family relations were good and their peer relationships were poor, in adulthood the pattern has turned around, giving good peer relations and poorer family relationships.

What explanation could account for this is unclear. One possibility is that these children were late developers, as suggested by their delayed entry to family life, and their relationship patterns subsequent to this (Tizard & Hodges, 1978). When they

were younger they were reported as being more involved with their family and less with their peers, which was less the case for the comparison group. In this vein, perhaps the rebellion of adolescence has come to this group later than the comparison group. They are now experiencing a period of individuation, developing their independence, building relationships outside the family, and with their peers, perhaps giving them the chance to look at their family in a new light and from a different perspective. This might perhaps throw up a contrast between different styles of intimate relationships. The ex-institutional individuals have built their own relationships with peers and in some cases started to build their own family, which perhaps makes them see their previous family relationships in a new light, seeing them now as less preferable to the relationships that they have newly developed, and they feel more able to criticize their family of origin. However these differences were not accounted for by simply dividing the ex-institutional group into those who were in a relationship and those who were single. Alternatively, it is possible that entering the age of adulthood, marriage and parenthood, the insecurities and resentments of their early years have resurfaced, causing them to be caught up in the conflicts of their early years. Another alternative for this result could be that the ex-institutional group individuals experience greater problems with their family *because* they are closer to them than the comparison group. Greater involvement could lead to higher levels of friction, compared with those who are more distant and, perhaps, avoidant of their parents, where problems do not necessarily have the opportunity to arise.

The IIP provided a different view on interpersonal relationships. This is not concerned with the different categories of friends, but with the qualities of their relationships. Here again there were no overall significant differences between the

groups indicating that ex-institutional and comparison groups responded mostly alike. However it was also the case that the ex-institutional group did shows a trend in the direction of having higher levels of interpersonal problems than the comparison group, suggesting that some of the characteristics present at 8 and 16 may also be present but to a lesser degree in adulthood. The one sub-scale on which this tendency was statistically significant was the scale corresponding to judging oneself as being 'too aggressive'. This scale was made up of items such as loosing your temper, arguing with others, fighting with others and getting irritated and annoyed. This is consistent with the reports at 16 where the ex-institutional group were judged as more quarrelsome, irritable and aggressive than their matched comparisons (Hodges & Tizard, 1989). This continuity demonstrates that a characteristic prominent in adolescence remained in the same form into adulthood and was still rated as a problem. This finding is consistent with several studies concerning the effects of adverse early experiences, such as Rushton et al. (1995) and Howe (1997). It also supports the evidence of the stability of aggression as a characteristic over time (Lefkowitz et al., 1977; Olweus, 1979).

If we consider the two interpersonal measures together we find that the ex-institutional group has elevated levels of interpersonal difficulties in a variety of domains of friendship but that they experience marked interpersonal difficulties specifically with respect to their family, rather than any other specific group of people. We also find that in general it is not a particular aspect of relating that they find difficult (save perhaps when it comes to aggression) but a particular group of people that have a specific clearly defined relationship with the individual and their difficulties are specific to this group alone.

Another characteristic of the ex-institutional group that appears to fit with the picture of individuals who are slightly more aggressive than others is the tendency of the ex-institutional group to rate themselves as being more independent and self-sufficient than most and as being able to get along quite well by themselves. This suggests an individual who is quite fiercely independent and who prefers to rely on themselves. This would be somewhat consistent with the finding that few of the ex-institutional group rate themselves as secure (which would entail acknowledging some dependency on others). This could indicate an underlying mistrust that others will respond when or as they were needed. This self-sufficiency can be somewhat confirmed by the tendency of the ex-institutional to rate themselves on an independent measure, the Sarason social support scale, as more often preferring to rely on themselves rather than turn to others, in both positive and negative situations, when compared with the comparison group.

Police contact

The ex-institutional group also differentiated themselves from the comparison group on their history of police contact. Unfortunately no further information was available on the nature of the trouble they had been in or the severity or frequency of such troubles. These offences could therefore range from petty crime, such as drink driving or burglary, etc to more serious crimes. It could be speculated that such a history could indicate that the ex-institutional group perhaps have experienced difficulties in the area of authority and conforming to external rules, or in the control of their aggression and impulsivity. These rates had increased since age 16 but this must be seen in the light of the fact that by 31 years of age they have had many more years in which to get into trouble than is the case at 16. Interestingly there was not a

continuity between those who had been in trouble at 16 and at 31. This could be because such rebellion could be seen as a developmental phase, in which case those who had not been in trouble by 16 were more likely to get into trouble after 16, which could support the idea of this group being late-developers. However cycles of disadvantage theories would dispute this, arguing that it would more likely for individual who have been in trouble in the past to be involved in further difficulties later on (Quinton et al., 1984).

Many studies report higher levels of criminality in adults and adolescents who were adopted, who had a disrupted childhood, or who spent periods of their childhood in institutional care (Rutter et al., 1990). This sample exhibited behaviour problems, particularly of the externalising kind, when they were assessed at ages 8 and 16, which could be explained by the fact that the sample contains twice as many males than females. The research has also found evidence for the long-term continuity of externalising anti-social behaviours in childhood, and antisocial (including criminal behaviour) adult outcomes, particularly with respect to boys (Rutter, 1987c). There is also evidence for the greater stability across time of externalising antisocial behaviours when compared to internalising disorders, where the former is more common in boys, the later in girls (Fischer et al., 1984; Verhulst et al., 1990; Esser, 1990). These findings also supports Parker and Harris's (1987) findings of associations between peer problems in childhood and criminality in later years, since this sample showed persistent problems in their peer relationship at earlier stages of this study.

Self-esteem

Levels of self-esteem were not significantly different between the two group, although there was a trend in the direction of the ex-institutional group having higher levels of self-esteem than the comparison group. This could fit a picture of self-reliant and self-sufficient individuals that has emerged from the results so far. It is interesting that after a history of being given up for adoption and being later adopted, with all the feelings that this knowledge will generate, the ex-institutional group tend to have higher self-esteem. This may well have been boosted and encouraged by proud parents whom the child may perceive as having specially selected their child out of many others to make up their family, and from then on encouraging the children to feel special, valued and well-loved, putting a lot of time and energy into building a bond with the child, perhaps more so than parents of ordinary families with children brought up by their natural parents. The evidence from the past stages of the study states that adoptive parents often provide a very rich, motivated and enthusiastic environment for the child, more so at 8 years of age than non-adoptive parents and certainly more than the parents of 'restored' children (Tizard and Hodges, 1978). This quality of their environment has already been seen to have very positive consequences for the child's IQ and attachment and bonding with their new parents, and may therefore also exert a good influence on their children's self-esteem.

It is thought that self-esteem is closely tied up with the internal working model. Good experiences and relationships with caregivers will foster a good sense of self-worth and self-esteem, as the child responds to feeling loved and loveable. As we have seen, even these children who entered their families much later than most

children, were able to develop good attachment relationships with their parents. They have also overcome the adversity of their early years which may have given them a sense of achievement and mastery. Therefore, it is likely that their self-esteem would also benefit from this interpretation of their experiences.

This finding was somewhat surprising since many of the problems common in groups who have and still suffer from the effects of adverse early experiences are also accompanied by a low sense of self-esteem and self-efficacy (Rutter et al., 1990). However, maybe this result can go some way to explain to mostly good outcomes shown by this ex-institutional group. Since good self-esteem is thought to have a protective effect (Garmezy, 1985; Rutter, 1990), buffering the individual against stress and adversity, this may have played a part in the recovery and resilience of this ex-institutional group.

Demographics

The findings with respect to qualifications and occupations show that the ex-institutional group while having lower status on both these measures only distinguish themselves significantly on the qualifications and occupation of their partner. This would seem to indicate that the ex-institutional group tend to select a partner of lower socio-economic status than firstly, themselves and second, than the comparison group. This could be because the ex-institutional individual has low expectations for themselves and the kind of partner that they could attract or alternatively it could be a way of selecting a partner who is non-threatening to the individual's sense of achievement. By doing this they may retain the superior position in the household (in terms of socio-economic status) and are less likely to

find themselves in the dependent role, or being reliant on their partner to take charge. This is obviously speculation, but it does to some degree correspond to the emerging psychological picture of the ex-institutional group.

This lower SES may also account for the difference in the ex-institutional group's living arrangements. The ex-institutional group less frequently have mortgages and more of them rent. This could however be an indication of the ex-institutional group being less settled than the comparisons. Perhaps as late developers they feel that they have not yet reached the stage where they want to settle down and take on the commitment of house ownership. Alternatively if the household has lower qualifications and occupational status it is likely that the household income is less than that for the comparison group and they cannot yet afford to buy their own house. Since the majority of the comparison group were originally living around the London area, regional differences in house ownership may contribute towards this pattern.

Romantic attachment style

The measures of romantic attachment style have lead to some interesting findings. The evidence suggests that the ex-institutional group do not differ from the comparison group, although trends were consistently seen in the direction of the ex-institutional participants being less secure than the comparison group. This absence of a clear difference between the two groups is supported by the data on interpersonal relationships with partners, which also found that the ex-institutional group did not have significantly more problems getting on with their partner than did the comparison group. The data indicates that the ex-institutional group, at this stage

in their lives, have no greater difficulties in maintaining intimate relationships than the comparison group. However the properties of the measure itself are not clear since no significant correlations were found between the three attachment styles which would normally be expected, given that if someone rates them selves as secure on one question they would also rate themselves as secure on another. This measure has been criticized for not making the statements more specifically to do with romantic love partners which may change the way participants respond to it. It also relies on conscious awareness of style of relating in terms of romantic attachment. Many other instruments that researchers and practitioners use to measure attachment behaviour are based on unconscious communication. This instrument might therefore be prone to responder bias and therefore to expect the usual interrelationships between these behaviours may be inappropriate.

The presence of consistent trends towards the ex-institutional group being more insecure indicates that some traces of the effects of their earlier insecurities during their early years may still remain. This would not be surprising, since much of the literature argues for the persistence of the effects of early experience, often mediated by something such as the internal working model. Although these models can be revised in the light of new relationships and experience, some are more resistant to change than others, and it is possible that influences of the past cannot be wholly overwritten.

General mental health

This study also finds that the ex-institutional group are indistinguishable from the comparison group in terms of their general mental health. This is a striking finding. However, this measure aims to measure recent changes in mental health status and may not detect long-standing conditions which may distinguish the two groups. It is also 15 years since these individuals were last seen, and it is quite possible that within this period they have suffered mental health difficulties, which have either remitted or been treated. However this finding is somewhat corroborated by the data concerning the participants previous contact with mental health professionals. Although the ex-institutional group showed higher levels of such contact, the difference with the comparison group was not significant.

This finding is surprising given the evidence in the literature of early difficulties leading to later mental health difficulties (Rutter and Quinton, 1984; Howe, 1997; Bowlby, 1951). This is also in contrast to Brown et al.'s (1978) and Harris, Brown and Bifulco's (1986) finding concerning the increased rates of mental illness, and particularly with respect to depression, in those who suffered a lack of care in their childhood. The work of Parker and Harris (1987) would also predict adult psychopathology following childhood peer relationship problems.

Life-events

There was no significant difference between the groups in terms of the occurrence of life events over the last 5 years, although there was a trend in the direction of the ex-institutional participants having experienced more of these events. This indicates that the ex-institutional individuals have to some extent escaped from a cycle of

adversity, where disadvantage tends to breed disadvantage (Harris & Bifulco, 1991). However, the trend indicates that such forces were stronger for the ex-institutional group than the comparison group.

In general the evidence of this study indicates that the ex-institutional individuals are hard to distinguish from the comparison group. In some areas there is no observable difference between the way the two groups respond, and in others there are significant differences, however in many cases the ex-institutional group show trends in the direction of having greater difficulties than the comparison group, but that with this sample size and the effect size these differences are not significant. Although the majority of the results of this study have shown no significant differences between the ex-institutional group and the comparison group, there have emerged a set of distinct trends in the data. These persistent and consistent trends in the direction of the ex-institutional group experiencing greater difficulties than the comparison group would suggest that the ex-institutional group do differ from the comparison group in a variety of areas, but that the effect size is quite small and cannot be adequately demonstrated with the sample size available in this study.

Variance

However, what has emerged is that the ex-institutional group do differ significantly from the comparison group on the basis of the variance of many of the sample variables. When we look at the four main areas of general mental health, self-esteem, interpersonal problems and a standardised composite score, there is no significant difference between the means for the two groups but the difference in their variance is very significant. The ex-institutional group regularly has a far

greater variance than the comparison group. This would indicate that the ex-institutional group has a wide range of possible outcomes, extending from the well functioning end of the spectrum to the poorly functioning end of the spectrum, compared to the comparison group who in general respond within a much narrower band of competence. If we looked only at the difference between the means or medians of the two groups this pattern would give no major differences between comparison and ex-institutional groups.

It is not the case that the ex-institutional group give a greater variance on all measures and variables, but on the major variables their difference is notable. This therefore indicates that some of the ex-institutional group are functioning at a level indistinguishable from the comparisons, and in some cases better than them, whereas others are functioning at a much lower level, experiencing greater difficulties.

This finding is consistent with the literature that suggests that all individuals have areas of resilience and vulnerability which gives them advantages or disadvantages in certain situations (Rutter, 1985; 1989). Within a longitudinal perspective it is likely that some qualities of individuals, how they cope with things that happen to them, the decisions that they make about their lives, the environment that they find themselves in have a different impact on one individual when compared to another. Different combinations of experiences and characteristics are likely to make some people vulnerable to certain stresses while others may make them more resilient in adverse circumstances, which in turn contribute to how that person copes with future situations.

Gender

The reviewed literature also examines the role of gender in the pathways of resilience and vulnerability, finding that men and women have often have different pathways through adversity, and different ways of manifesting their problems, and that men appear to be more vulnerable to early adverse experiences (Brodzinsky et al., 1984; Maughan & Pickles, 1990). When the present sample was divided according to gender, no significant differences were found in general functioning. However, the ex-institutional group was two thirds men, which made comparisons between the sexes somewhat unsatisfactory.

Other factors

Given this evidence it raises the question, what is it that contributes towards determining how well or poorly an individual copes with stresses and functions as an adult? Analysis of this nature with this sample was somewhat constrained by the low sample size. Therefore it was not possible to conduct many tests on subgroups within the ex-institutional and comparison groups to look at what qualities of the individual correspond to good or poor outcomes in adulthood. However some analyses were carried out on some of the major subgroups as discussed below.

Some of the studies reviewed in the introduction were able to look at some of these factors in determining outcome in adulthood. Past studies have looked at the role of partners on how an individual copes with stress (Rutter et al., 1990; Quinton et al., 1984). It is likely that having a reliable partner provides support and helps enhance someone's self-esteem and confidence which are both invaluable in stressful circumstances. Therefore partners can often form a buffer against stress. In the

present study the participants were divided into those in a relationship and those who were not, in order to see if this was indeed the case for this sample. On the composite score those participants who were single had a significantly higher score than those in a relationship; a pattern that was not significant in the comparison group, although the trend was in the same direction. This may indicate that being single is associated with poorer levels of functioning, particularly in the ex-institutional group. Of course it should be considered that perhaps those who are single are single as a consequence of being more troubled generally and that those who are functioning at a higher level are more likely to attract and maintain partners. However this pattern is only present in the ex-institutional group, indicating that there is something specific to the ex-institutional group, perhaps the consequence of their unique childhood experiences, that means that the presence of a partner contributes to better functioning.

Ex-institutional sub-groups

Due to the relatively small sample size it was not plausible to examine in detail the sub-groups within the ex-institutional group, such as early- or late-adopted, or early- or late-'restored'. But the hypothesis, based on the findings of both the earlier stages of this study (Hodges & Tizard, 1989a; 1989b) and other studies (Lambert, 1981), would be that those who had spent longer in the institutions would have more difficulties in later life, and that those who were 'restored' would have greater difficulties on the whole than those who were adopted. This hypothesis cannot be confirmed here, but the trends as shown by the standardized composite score indicate that the comparison group has a small variance, the early adopted group has the largest but with a median much the same as the comparison group. The later adopted

individuals have a smaller variance than the early adopted group, but also score more highly, showing more difficulties, than them. (Analysis of the group characteristics of the 'restored' group was not viable due to the very small sample size of this sub-group.) As a tentative finding, this would broadly confirmed the hypothesis, but with such small sample sizes these comparisons may be unreliable and can only be treated as speculation about the real group differences.

Longitudinal comparisons

This data also indicates that the outcomes across several areas of functioning in early adulthood are inter-linked or internally consistent in that the ex-institutional participants show consistency in their responses across a range of areas, in contrast with the comparison group. The comparison group's functioning in a range of areas appear to fairly independent of functioning in other areas. The internal correlations between total scale scores with sub-scale scores, and between sub-scale scores also reflect this trend.

In terms of the longitudinal data, this study indicates that although there are in general no large differences between the outcomes of the two groups, the outcomes for the ex-institutional group are much more strongly linked to their characteristics in childhood and adolescence than are the outcomes for the comparison group. The adolescent's self-report social difficulties questionnaire at 16 is strongly associated with social difficulties scores on two independent measures at 31, but again only in the case of the ex-institutional group. The parents report of the child's difficulties at 16 is strongly associated with all the main outcome measures at 31, such as interpersonal difficulties, mental health and levels of self-esteem, compared with no

significant correlations for the comparison group. It appears that the teacher's assessment of the child's behaviour at 8 (Rutter B) is much more strongly associated with adult outcome than is the same measure given by teachers at 16. These patterns of association indicate some strong longitudinal continuities which are almost completely absent in the comparison group. It is interesting to note that continuities are often reported as being stronger when looking backwards in retrospective studies. But is important to note that the continuities reported here derive from a prospective study, while remaining strong and significant.

These results could be seen as supporting those findings in other studies where functioning in one area is highly correlated with functioning in another (Rutter et al., 1990). This could suggest the presence of underlying mechanisms where functioning in one area is reliant on functioning in another. For example, in the ex-institutional group, levels of self-esteem are closely related to mental health and interpersonal functioning. However, in the comparison group the association is much weaker. Mental health is also strongly related to interpersonal functioning in the ex-institutional group, but such a relationship is absent in the comparison group. This somewhat mirrors the findings in other studies where functioning in a range of areas are fairly independent of each other in the control group, but strongly associated in the experimental group, as for example in the Rutter, Quinton and Hill (1990) study described previously. These patterns of correlation are intriguing although it is not clear what meaning to attribute to them. They suggest that the ex-institutional group's internal qualities and resources are more tightly related to each other than in the comparison group; that for example, their sense of self-esteem is built on their *own* achievements (consistent with the picture of the ex-institutional group as self-

reliance and lacking dependence on others); that there is less slack or buffering potential for the ex-institutional group than there is for the comparison group. This could contribute towards the greater vulnerability to the effects of stress of those who have this type of internal structure.

Comparisons with other studies

The positive findings of this study generally support the adult findings reported by Heston et al.(1966), reporting good recovery and the beneficial effects of good family and marital relationships. However it did differ from that study on the basis of the differences found between the two groups. It is suggested that this is because Heston's sample spent on average a significantly smaller amount of time in care, and therefore the effects of their early experiences were less pervasive.

The findings presented here show quite marked differences with the findings reported by Rutter et al. (1990). The present sample was shown to be functioning at a higher level and with fewer difficulties than the Rutter sample. There was less psychiatric and personality disorder, less deviant family functioning, fewer marital problems, no broken marriages, and no parenting breakdown resulting in their children being given up into care. The findings do however confirm some of the Rutter findings in reporting high levels of heterogeneity in outcome, higher criminality in the ex-institutional group, stronger continuity between problems apparent in childhood and adult difficulties compared to the control group, and possibly the positive effect of educational achievements and a supportive spouse.

It is suggested that the difference between these findings could be down to the difference in sample characteristics. First, and most importantly, Rutter's sample had extensive experience of family discord and marked disruption of care throughout their childhood, which is widely accepted as having a strong negative effect on the children involved; some remained in care until 16; they on average entered care at a much later age; and were assessed at a younger age in early adulthood. Quinton et al. noted that the greatest risk factors for their sample was first, marked disruption in parenting in the first 2 years of life, and second, spending almost all of their childhood in an institution, neither of which circumstances were characteristic of the sample in the present study.

The current study when compared with the findings of the Triseliotis et al. study found less broken marriages in the ex-care group (which is even more interesting considering that their age at the time of the study was older than in the Triseliotis study), but more contact with mental health services. The overall levels of disturbance were relatively low reflecting the rates reported in the present study. However comparisons between the studies are difficult to make since the Triseliotis study did not have a control group whose rates of difficulties could not be compared with the ex-institutional group, nor was it a prospective study. What is interesting to note is that those who were solely brought up in institutional care and who had achieved some relative social and personal stability in their current lives reported that the single factor which had helped them achieve this was if they had experienced at least one caring and good relationship with the staff in the residential care setting. This again underlines the important reparative effect of good interpersonal relationships.

Overall, it seems as though the participants in the present sample were functioning at a much higher level than children who had spent the whole of their childhood in institutional care, who had not had the benefit of a later benign environment in which to recover from their early adverse experience. On the other hand this sample were functioning at a slightly lower level than children brought up by their biological parents (of the same socio-economic status as the adoptive parents). This picture is similar to that for adults adopted as very young infants (Howe, 1998).

GENERAL SUMMARY

The findings in general provide evidence of the ability of individuals to recover to a large extent from adverse early experiences consisting of a lack of early attachment relationships. This early history does not condemn these individuals to a future of inevitable psychosocial disability, of shallow feelings and loyalties, and an inability to form or tolerate emotional relationships, extending into adult life (Bowlby, 1951, Goldfarb, 1947; Howe, 1998). The evidence presented here instead suggests that the majority of these individuals go on to successfully develop close and rewarding relationships with people in a wide variety of settings, and even successfully to build new families of their own. Nor does this early attachment history inevitably lead to poor mental health, major personality or character disturbances (Bowlby, 1956; Goldfarb, 1947). This study suggests that the mental health of the ex-institutional group does not differ significantly from the mental health of those born and brought up in their own families.

It appears that the effects that were present throughout childhood and into adolescence have largely washed out by the time that these individuals reach their

early thirties. However a few clear effects are still present, predominantly in the areas of difficulties in their relationships with their childhood family, some anti-social behaviour (measured in terms of police contact), heightened sense of independence and self-sufficiency, and raised levels of aggression in interpersonal contexts. This constellation of characteristics suggests a somewhat 'angry' individual, which is a quality that has been attributed to individuals with this type of early history (Howe, 1998) elsewhere in the literature.

More subtle long-term effects however are suggested by this study. The data showed evidence of persistent and consistent trends, which are cautiously hypothesised as evidence for a small effect size in the direction of higher difficulties for those with the disrupted early relationship history. This covered areas of adult functioning such as greater interpersonal problems, more insecure romantic attachment styles, fewer people as their confidants, fewer peer friendships, more reliance on themselves rather than their friends for support. They also tended to have more children, more were on benefits, they had a greater history of contact with medical and mental health services, lower qualifications, lower occupational status, partners with lower occupational status than themselves, and more life-events in the last 5 years.

What this study also provides strong evidence for is the heterogeneity of outcomes, following early adversity, as reported in many previous studies of this population (Bowlby, 1951; 1988, Rutter et al., 1984, Rutter et al., 1990; Dowdney et al., 1985). Some individuals were found to be functioning above the level of those without their early care history, which could indicate an almost paradoxical protective function of early adversity. There is some evidence that individuals can benefit from adversity

either by means of boosted self-esteem at having successfully lived through adversity, through learning adaptive coping strategies in difficult circumstances which can be used to better cope with future stresses, or through comparing their current situation with a history of severe adversity by which process the present comes out as better and is therefore experienced as a lesser stress than judged by those who did not have such positive comparisons to make (Elder, 1979). At the same time removal from adversity to a more favourable environment, as for example, adoption, has also been found to provide a protective function, usually by means of the close, good relationships forged in the new family, and the boost that this gives to the child's self-esteem, and the good opportunities that result from this life-style. It is suggested that a combination of a good relationship either in childhood, adolescence or adulthood, can be help break the cycle of disadvantage and serve a protective function for the child/adult in times of stress, either through the positive impact that this relationship has on the individual's internal working model, on their sense of self-esteem and self-efficacy or by means of social support in times of stress.

This heterogeneity also however means that there are individuals whose outcome in adulthood is below the lowest in the comparison group. This suggests that for some their early relationship history was associated with subsequent difficulties which have persisted into adulthood, suggesting a cycle of disadvantage stemming from the vulnerability associated with the lack of early attachment relationships. The data also suggests that poor functioning in one area is associated with poor functioning in other areas, suggesting pervasive difficulties in adult adjustment and relationships.

This evidence therefore partially supports Clarke & Clarke's (1976) arguments for the ability of individuals to recover from early adverse experiences, when these individuals are subsequently removed to a more favourable environment. This later experience can go far in repairing the damage caused by adverse early experience, bringing about discontinuities in problem behaviour etc.. However, at the same time, these findings also lend some support for the arguments concerning the long-term enduring effects of this early care-giving history (Bowlby, 1951; Goldfarb, 1947), giving rise to continuities in personal adjustment across the life cycle.

LIMITATIONS OF THE STUDY

Non-significant results

There are several possible reasons why this study has yielded these findings of non-significant differences between the ex-institutional and the comparison group. It is possible that there are no real differences remaining to distinguish the ex-institutional individuals from others who have not had their unique early experiences.

If on the other hand there are remaining real differences and long-term sequelae of early institutional care then we have to ask why this study has failed to detect these. There are several reasons why this might be the case. First, it is possible that this study did not ask the right questions. Real differences could still be present but unless they are given the opportunity to show themselves by being asked the right questions then they are unlikely to be identified. For example, ex-institutional individuals might be more creative than others or more extrovert, or more rational than others etc.. If something like this is in fact the case then this study would not have clearly measured this on any of the measures included in the study.

Second, it is possible that the right type of questions were asked, in terms of being in the right area, but the measures used might have been inadequate to measure the differences reliably. So for instance it might be the case that ex-institutional individuals show some difficulties in the area of interpersonal relationships but the tools used, i.e. the IIP or SSIAM were unable to measure this difference accurately and some other measure of interpersonal difficulties, perhaps tapping a slightly different aspect of relating, might have been more suitable. Alternatively it could be the form of the measure that was important. For example, this study was based solely on self-report measures. Perhaps this leaves the study vulnerable to persistent biases in responding that would contrast with other sources of information provided by perhaps a partner or friend.

The third possible reason why this study yielded mostly non-significant differences between the groups may be based on the sample size. The target sample size was calculated on the basis of Cohen's power calculation for a large effect size, at the .05 level of significance, giving a minimum sample size of 26. The actual sample size achieved was 22 for the ex-institutional group and 23 for the comparison group. This would have been large enough to detect a large effect at .10 level of significance (for the difference between the means). But an effect would have to been relatively large to be detected within this sample, or alternatively more participants would be needed to demonstrate the anticipated effect size. There may well have been a real difference between the two groups but there were not enough participants to make these results significant. Therefore we cannot confidently say that there were no differences between the groups and are at risk of making a Type II error since the study has too low power to confidently accept the null hypothesis. The other alternative however

is that there was a real difference between the two groups but that the effect size was smaller than expected. If this was indeed the case even greater numbers of subjects would have been needed to demonstrate this result.

The data outlined above however did show persistent trends indicating real differences between the two groups and it is hypothesised that there are some real differences between the groups but that the effect size was in fact smaller than anticipated and such findings could not be confidently demonstrated by this data.

Therefore, the most important limitation of this study is the sample size. As has been outlined above, it is thought that while a larger sample size may not have changed the pattern of findings described above, the apparent trends in the data suggest that a larger sample size may have yielded a larger number of significant findings concerning the differences in adult adjustment between the ex-institutional and comparison groups.

A larger sample size would also have enabled more substantial analysis concerning the different sub-groups in the sample, such as looking at differences in outcomes for the adopted and 'restored' children, and for early and late adopted and 'restored' children. This would also have provided the opportunity of looking in more detail at the variety of factors which may have influenced outcome, such as gender, relationship status, educational level etc.

However, there was an inherent limitation accompanying this study: this was a longitudinal study across a 28 year period and there was only a fixed number of

potential participants available for this follow-up. There was therefore no option to increase the maximum sample size. A lower attrition rate across the 22 year period (since the 8 year follow-up, and 15 years since the 16-year-old follow-up) would have yielded larger sample sizes. However all attempts were made to contact and recruit all those eligible, including tracing, contacting previous addresses, contacting parents, and frequent correspondence. The final attrition rates are judged to be reasonable in the context of attrition rates of other follow-up studies. It is also important to note that the participants lost to the study through attrition did not appear to significantly distort the characteristics of the final sample.

More information

The second main limitation of the study was the amount and quality of the information available from the responses to the postal questionnaires. More detailed information concerning issues known to be important in other studies looking at the long-term effects of institutional care (Rutter et al., 1990; Quinton et al., 1984; Wolkind et al.1985; Dowdney et al.1985) would have been a valuable addition to the postal questionnaire data and would allow for direct comparison with these studies. For example, information concerning the participant's relationship history, quality of their current relationships, characteristics of their partner, details of their parenting skills and relationships with their children, the age at which they married, the age at which they had their first child, life events across the last 15 – 22 year period, educational history since 16 years of age, employment history, details of their mental health history, details of their contact with the police and degree and type of criminal involvement, further details concerning their attachment relationships, and memories and interpretations of their institutional experience and its impact on their life to date.

Some of this could have been obtained by additional questions on the postal questionnaire, while the remainder would have been best obtained by qualitative information supplied preferable by means of a detailed interview with the participant.

The limits of the already rather long postal questionnaire were judged to be permissible when weighed up against the disadvantages of an excessively long and time consuming questionnaire, which was feared may jeopardise the participants willingness to participate in the study. The value of detailed qualitative interview data however are clear and as a result the ex-institutional participants are to be interviewed as a secondary study to the present study. This interview will be based on the adult attachment interview (George, Kaplan and Main, 1985) and will aim to gather details of the childhood, adolescent and adult experiences of the participants with particular detail on their relationships with their parents, grandparents, and children, and reflections on the effects of the periods spent in institutional care. The interview will gather information about the attachment relationships with respect to their parents and will allow examination of the quality of their attachment relationships following institutional care.

Despite the second wave of data collection by means of an interview to supplement the data provided by the postal questionnaire, it is likely that some issues will not be covered. Time and resource limitations mean that this is a perennial problem in research, but is unfortunately inevitable.

Attachment styles

The central feature of this sample's early experience was the lack of early attachment relationships during at least the first 2 years of life. It was only when these children left institutional care between the ages of 2 and 7 that they entered an environment with the opportunity to form rather belated first attachments. The current research question concerned the possible damage that this attachment history had caused. Therefore more detailed information concerning attachment behaviour, indicating the characteristics of the internal working model, would be very valuable. The measures used in the postal questionnaire did aim to tap aspects of attachment, but more detailed, valid and reliable standardised measures would provide very valuable additional information. For this reason, an interview specifically designed to elicit information about attachment constructs is to be administered to the participants of this study in the secondary study following on from the present study.

Measures

The study could be criticized on the basis of the measures used to elicit information from the participants. The findings of a study are always constrained by the quality of the measures used. In this case, many of the measures appeared satisfactory, but as already outlined, they may not have tapped the areas most pertinent to the individuals taking part in this study. On reflection, more detailed information concerning self-esteem and self-efficacy would have been interesting, particularly given the mediating role that these constructs may have had on the outcome of these individuals. Also, the romantic attachment measure was somewhat disappointing in the data that it yielded. The information on the psychometric properties of this measure is somewhat lacking. However this is one of the only measures currently

available in this area, and is currently being development further, both in terms of format and content. The other limitation of the measures used is that some of them were not standardised tools, but adapted for this study in particular. This was done in the interest of user-friendliness and appropriateness for the population, but was at the cost of standardisation and therefore comparability with other studies in the field.

Sources of information

Many of the measures used in this study were based on self-report and as such are at risk of responder bias and may not reflect a 'true' picture of the participants qualities. What they do however accurately describe is the participant's self-perception and own experience. If the participants had a tendency towards, for example, defensive idealisation, they would tend to be overly positive about their experiences, and bias the results towards the better functioning end of the spectrum. This could perhaps account for the pattern of results in this study, given the evidence that this group rate themselves as self-sufficient, rely on themselves, have a tendency for aggression and rate themselves as having high self-esteem.

Several of the variables used for comparison with the adult data from the 8 and 16-year-old stages of the study are based on the reports of others in the immediate environment of the child, be they a parent or teacher. This may mean that correlations between measures are weaker since they come from different sources and so may not be so comparable. However at the same time this allows for the independent corroboration of results.

Ideally it would have been preferable in the adult follow-up to have had access to objective information about the individuals situation, with additional information provided by other sources such as their relationship partner, friends and childhood family. This would provided a very interesting opportunity to look at the individual and their social context in more detail and from a variety of perspectives.

More longitudinal comparisons

This study is unique in that it is one of a very few longitudinal prospective studies. As such there is detailed data available concerning the children's adjustment at ages 2 ½, 4, 8 and 16. The present study included in it's analysis the important outcome measures from stages at 8 and 16 years, but the potential for some further analysis remains. This could shed further light on continuities and discontinuities in the data, risk and protective factors influencing the outcome in adulthood. This will also form part of the secondary study now taking place, building on the findings already revealed in this study.

Possibility of significant findings by chance

As has already been outlined in the methods chapter, the present data was subject to detailed analysis, yielding only a few significant findings. There is therefore a risk that some of the significant findings arose by means of chance occurrences. This has to be borne in mind when examining these results, and caution exercised in their interpretation.

PROFESSIONAL IMPLICATIONS

This study provides some evidence to support the arguments concerning the importance of close confiding relationships. These have been found to offer benefits to children, adolescents and adults by buffering against the effects of adversity, either in childhood or during adulthood. A good relationship could exert its influence in a number of ways, be it via levels of self-esteem, or the internal working model or by moral support in times of stress. The protective effect of a good relationship has implications for childcare in general as well as in the area of local authority care.

This study also provides evidence for the benefits of placements following either being given up into care, or following a period spent in care. Adoptive or foster placements that allow the development of warm, close and loving relationships between the child and their parents have a very beneficial effect on these children, offsetting the disadvantage bred of either their 'unwanted' status, or their deprived relationship experiences in institutional care. Policies that encourage early placement, with an emphasis on good relationships are most likely to benefit the child involved. However, these findings also provide evidence for the huge benefits of a supportive and loving environment, with little emphasis on the age at which it is experienced. Even late placements, as defined in the Tizard studies, can be very successful, underlining the child's potential for substantial recovery in a favourable environment.

This study has provided some evidence for the damaging effects of the lack of early attachment relationships. The results from the earlier stages of this study have already had a large impact on childcare practices in this country. These findings

demonstrate that impersonal institutional care, with high turn over of carers can have damaging effects on the later development of children in this care. This has two implications; either the length of time in such a care environment should be kept to a minimum, or that the institutional care that is provided for children who for one reason or another are given up into care should attempt to encourage the development of personal relationships between the child and their carer (or small numbers of multiple carers). It used to be argued that the inevitable breaking of this bond, either when the child leaves care or when the staff leave their post, is more damaging to the child than the lack of such relationships. This work however tentatively suggests that this is not the case, but that the experience of a personal close warm relationship during childhood, even if it is later lost, provides more benefit than harm.

However this should not be taken as evidence for encouraging regular development of relationships and breaking them as the child moves to yet another placement, before a permanent placement is found. Since continuity is one of the defining features of attachment relationships, it should be promoted where possible. For example, if a child has to leave a foster placement, maintaining some contact with those who had good relationships with the child, such as the foster parents, should be promoted as providing some continuity over time and respect for the importance and protective effects of good relationships. The evidence review here has emphasised that the regular disruption of care itself has strong negative effects on a child. The rapid allocation of a suitable, harmonious, stable and permanent placement should be the priority.

This study however, also provides evidence for the remarkable resilience of children in the face of adversity. This means that children often have the potential to overcome the effects of early adversity, but only usually if they have the benefit of other protective factors such as subsequent placement in a more favourable environment such as an adoptive or 'restored' placement where there is the opportunity for the development of good attachment relationships.

These findings have implications for those working with children in care, and with adopted children and their families as well as those who are being fostered. This study provides encouraging evidence for adoptive families of the generally positive outcomes for adoptees, despite some difficulties at earlier ages. This study also suggests that a focus on the development of good relationships is of paramount importance (given adequate physical care and stimulation). This could either be in the form of the relationship between the child and their parents or grandparents, or between the child and the therapist, both of which would have an impact on the child's internal working model of relationships and on their self-esteem. The evidence has shown that experience of at least one good relationship is a strong protective factor against the effects of stress. The work in this field indicates that protective benefits could derive from the development of good interpersonal relationships, the support of a social network of family and peers, and a good sense of self-esteem right across the life span.

SCIENTIFIC IMPLICATIONS

This study provides strong evidence of the potential for recovery and resilience of children who have suffered early adversity, while at the same time giving some support to the arguments for the long-term effects of early adverse experiences.

The questions that these results provoke concern the identification of those factors which promote recovery and discontinuity of difficulties and those that maintain vulnerability and perpetuate the cycle of adversity and continuity of difficulties. Questions remain as to the characteristics of the individual and of the environment, and when, which promote these different pathways. This would help identify those who are at greatest and least risk. An investigation of the effects of the different placements on children leaving care would also be most valuable and interesting. This would further illuminate the properties of the environment following institutional care, for example adoptive or 'restored' settings, that are associated with good and poor outcomes

The findings of this study ideally need replication, and would benefit from a greater sample size in order to establish the magnitude of the similarities and differences between those who have experienced early institutional care and those who have not. However, the probability of a finding another British sample with the same early history as the one described here, by means of another 'natural experiment', are low, partially due to the changes that have been brought about in local authority child care as a result of the findings of earlier stages of this longitudinal study. However, future studies of inter-country adoptees with these experiences may be more likely, given the emerging literature on Romanian adoptees, and increasing rates of other inter-

country adoptions (Rutter and the ERA study team, 1998); O'Connor and the ERA study team (in press).

The highly significant finding of this study concerning the difficulties that the ex-institutional group experience in getting on with their families are striking. It would be most valuable to explore this area in an attempt to illuminate in more detail the nature of these difficulties, and their natural history, given the relatively harmonious relationships that were reported between the ex-institutional group and their families at the 8 and 16-year-old follow-up. Further detailed exploration of the past and present attachment relationships of the ex-institutional group would be most interesting, shedding light on continuities and discontinuities in attachment styles across a 30 year span. It is fortunate that this study is currently being followed-up by a study examining the attachment relations of the ex-institutional participants. It is hoped that this will provide some invaluable quantitative and qualitative data which will be of great interest to this area of the literature.

It would also be interesting to establish the similarities and differences between a group with this sample's early care experiences and a group of comparison individuals adopted at birth. This could illuminate the effects brought about by the adopted or 'unwanted' status and those due to the early lack of attachment relationships.

Examination of the long-term effects of early institutional care on the individual's parenting of their own children would provide very interesting material for study. This could be compared with several studies that have looked at these issues in this

type of population (Wolkind et al., 1985; Quinton et al., 1984) yielding some evidence of cross-generational transmission of parenting problems. The literature on attachment also provides evidence of continuities and discontinuities of attachment styles across the generations. Further examination of these issues would be very interesting, and could lead to identifying those risk and protective factors contributing towards these outcomes.

Further study of the mechanisms and processes contributing to longitudinal continuities and discontinuities have yet to be clarified. To illuminate the factors and mediating variables would be very interesting, such as the role of the internal working model, self-esteem, and social support. How these can be adjusted or modified by later experience, and the impact that this has on the individual remain key questions in understanding the various pathways from childhood to adulthood.

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APPENDIX 1

POSTAL QUESTIONNAIRE

FOLLOW-UP STUDY

Individual Number ☐☐☐☐

Thank you for giving your time and thought to this study. These questionnaires will probably take between 30 and 40 minutes to complete. Please do not spend too much time on each question This is not a test or evaluation and there are no right or wrong answers. You do not need to write your name anywhere on the questionnaires.

A. To begin with general background information, and events since we last met you;

1. Are you

Single	☐
Living with a partner permanently	☐
Married	☐
Separated	☐
Divorced	☐
Widowed	☐

2.Do you have any children? Yes ☐ No ☐

If 'yes' how many children do you have? ☐☐

3. How many people live in your home ? ☐☐

4. How many rooms do you have ? ☐☐
(excluding bathrooms, including kitchen if you can eat in it)

5. What type of property do you live in?

House	☐
Flat/Maisonette (self-contained)	☐
Rooms in a House (not self-contained)	☐

6. What are your living arrangements

Owned outright/mortgage	☐
Rented from local authority or housing association	☐
Privately rented - unfurnished	☐
Privately rented - furnished	☐

7. Do you have central heating? Yes ☐ No ☐

8. Do you have a car? Yes ☐ No ☐

9. What, if any, qualifications do you have, including the number (write 'none' if you do not have any). For example CSE, 'O' or 'A' Levels, Diplomas, Trade Qualifications, Degrees or other Professional Qualifications?

.....
.....
.....
.....

10. If you have a partner, please state their qualifications (write 'none' if they do not have any).

.....
.....

11. What is your occupation (please state if you are unemployed or a student)?

.....

12. If you have a partner, please state their occupation (please state if they are unemployed or a student)

.....

13. Are you on income support or other state benefits? Yes ☐ No ☐

Since you were 16 years old:

14. Have you been in trouble with the police or courts? Yes ☐ No ☐

15. Have you attended an out-patients department for medical attention? Yes ☐ No ☐

If 'yes' what was this for and when?
.....
.....

16. Have you been an in-patient in hospital for medical attention? Yes ☐ No ☐

If 'yes' what was this for and when?
.....
.....

17. Have you been an in-patient for mental health reasons? Yes ☐ No ☐

If 'yes' what was this for and when?
.....
.....

18. Have you sought help from a mental health professional? Yes ☐ No ☐

If 'yes' what was this for and when?
.....
.....

B. Please circle 'No' or 'Yes' to any of these events which has happened to you in the *past five years*. Please indicate (as best you can) the year when the event happened.

1. Have you had a serious illness, injury or operation needing hospitalisation or a month or more off work?	No	Yes	19.....
2. Has a close relative had a serious illness or injury?	No	Yes	19.....
3. Have you or your partner had a miscarriage or abortion?	No	Yes	19.....
4. Has anyone close to you, family or friend, died?	No	Yes	19.....
5. Have you broken off a steady relationship?	No	Yes	19.....
6. Have you had any serious problems, or major arguments with a close friend, neighbour or relative?	No	Yes	19.....
7. Have you had to give up a training course or educational course which was important to you?	No	Yes	19.....
8. Have you failed any important exams?	No	Yes	19.....
9. Have you been forced to leave a job for any reason?	No	Yes	19.....
10. Have you been unemployed for a month or more?	No	Yes	19.....
11. Have you had debts you were unable to pay?	No	Yes	19.....
12. Have you been attacked, raped or assaulted?	No	Yes	19.....
13. Have you been burgled or had property stolen or damaged?	No	Yes	19.....
14. Have you had any involvement with the police, the courts or the legal profession?	No	Yes	19.....

If you have ever been married or lived with a partner in the last five years:

15. Have you separated from your partner for a month or more?	No	Yes	19.....
16. Have you had a legal separation?	No	Yes	19.....
17. Have you been divorced or begun divorce proceedings?	No	Yes	19.....

In this next section we would like to ask questions about two people who you would consider 'friends'. First of all write in their initials in the spaces provided and give their age, then read each question and rate each question, for each of the two friends using the scale given at the bottom of this page.
For example:

	Friend 1 *JS Age 29*	**Friend 2** *PR Age 31*
1. How often do you eat with this person	**...4...**	**...3...**

	Friend 1....., Age..... (initials)	Friend2.....,Age..... (initials)
1. How often do you spend time with this person?	.....	.....
2. How often do you tell this person things that you don't want others to know?	.....	.....
3. How happy are you with your relationship with this person?	.....	.....
4. How often do you and this person go to places and do things together?	.....	.....
5. How often do you and this person tell everything to each other?	.....	.....
6. How much do you like the way things are between you and this person?	.....	.....
7. How often do you share secrets and private feelings with this person?	.....	.....
8. How often do you play around and have fun with this person?	.....	.....
9. How satisfied are you with your relationship with this person?	.....	.....

1 = Never or hardly at all
2 = Seldom or not too much
3 = Sometimes or somewhat
4 = Often or very much
5 = VERY often or EXTREMELY much

C. Next we want to ask about people in your environment who provide you with help or support. Please write down the initials of the person, their relationship to you and their age in the spaces provided. You can list up to three people for each question, putting the most important one first. Please tick the alternative "No-one / I'd rely on myself rather than talk to others" if this is more appropriate. Please answer all the questions as best you can. See example below:

EXAMPLE:

Who do you know whom you can trust with information that could get you in trouble?

*i. Initials.....**DS**....., Relationship.....**Sister**....., Age...**32**.....*

*ii. Initials.....**FS**....., Relationship.....**Father**....., Age....**62**.....*

*iii. Initials.....**PW**....., Relationship.....**Male Friend**....., Age....**29**.....*

iv. ☐ *No-one / I'd rely on myself rather than talk to others.*

---

1. Whom can you really count on to be dependable when you need help?

i.. Initials....., Relationship....., Age.....

ii. Initials....., Relationship....., Age.....

iii. Initials....., Relationship....., Age.....

iv. ☐ *No-one / I'd rely on myself rather than talk to others.*

2. Whom can you really count on to help you feel more relaxed when you are under pressure or tense?

i. Initials....., Relationship....., Age.....

ii. Initials....., Relationship....., Age.....

iii. Initials....., Relationship....., Age.....

iv. ☐ *: No-one / I'd rely on myself rather than talk to others.*

3.Who accepts you totally, including both your worst and your best points?

i. Initials....., Relationship....., Age.....

ii. Initials....., Relationship....., Age.....

iii. Initials....., Relationship....., Age.....

iv. ☐ *: No-one*

4. Whom can you really count on to care about you, regardless of what is happening to you?

i. Initials....., Relationship....., Age.....

ii. Initials....., Relationship....., Age.....

iii. Initials....., Relationship....., Age.....

iv. ☐ *: No-one / I'd rely on myself rather than talk to others.*

5. Whom can you really count on to help you feel better when you are feeling generally down-in-the-dumps?

i. Initials....., Relationship....., Age.....

ii. Initials....., Relationship....., Age.....

iii. Initials....., Relationship....., Age.....

iv. ☐ *: No-one / I'd rely on myself rather than talk to others.*

6. Whom can you count on to console you when you are very upset?

i. Initials....., Relationship....., Age.....

ii. Initials....., Relationship....., Age.....

iii. Initials....., Relationship....., Age.....

iv. ☐ *: No-one / I'd rely on myself rather than talk to others.*

7. When you are really pleased and happy about something who would you tell?

i. Initials....., Relationship....., Age.....

ii. Initials....., Relationship....., Age.....

iii. Initials....., Relationship....., Age.....

iv. ☐ *: No-one*

8. When you are feeling worried or anxious who would you tell?

i. Initials....., Relationship....., Age.....

ii. Initials....., Relationship....., Age.....

iii. Initials....., Relationship....., Age.....

iv. ☐ *: No-one / I'd rely on myself rather than talk to others.*

9. How satisfied are you with the overall support you have? Please circle one of the choices below:

6. Very satisfied	5. Fairly satisfied	4. A little satisfied	3. A little dissatisfied	2. Fairly dissatisfied	1. Very dissatisfied

D. This section is about relationships at work. If you have not held a job in the last two years go to section E.

Please answer by circling 0 - 4 according to how true each of the following statements are for you.

	Not true				**Very true**
1. I find it difficult to hold down a job	0	1	2	3	4
2. I feel stuck in my job	0	1	2	3	4
3. It is difficult for me to stand up for myself at work	0	1	2	3	4
4. I feel my work is not worthwhile	0	1	2	3	4
5. My boss tends to overlook my work	0	1	2	3	4
6. My workmates are hard to get along with	0	1	2	3	4
7. I do not get on well with my boss	0	1	2	3	4
8. I sometimes worry that I can't manage my job	0	1	2	3	4
9. I often get bored when I'm not working	0	1	2	3	4
10. I feel my boss does not appreciate my personal qualities	0	1	2	3	4
11. I feel I have to compete with my workmates for my bosses attention and support	0	1	2	3	4

E. This section is about your relationships with your friends

	Not true				**Very true**
1. I find it hard to stay in touch with my friends	0	1	2	3	4
2. I tend not to talk about my private thoughts with my friends	0	1	2	3	4
3.I rarely go out with my friends	0	1	2	3	4

	Not true				Very true
4. If a friend upsets me I generally don't bother to try to mend the friendship	0	1	2	3	4
5. I tend to follow what my friends do	0	1	2	3	4
6. I am close to my friends, but I also like to spend time on my own	0	1	2	3	4
7. I would like to have more friends	0	1	2	3	4
8. I would like to feel closer to my friends	0	1	2	3	4
9. I often feel lonely	0	1	2	3	4

F. Please answer the following questions about your parents, brothers or sisters, or anyone else you consider a member of the family in which you grew up.

1. I generally don't confide (share my thoughts) with members of my family	0	1	2	3	4
2. I put the wishes of my family ahead of what I want	0	1	2	3	4
3. I go out of my way to do the opposite of what my family want me to do	0	1	2	3	4
4. I rarely turn to my family for love, advice and companionship	0	1	2	3	4
5. I tend to avoid seeing my family	0	1	2	3	4
6. I feel as though my family have let me down	0	1	2	3	4
7. I really don't get on with my family	0	1	2	3	4
8. I feel as though I've let my family down and been unfair to them	0	1	2	3	4
9. I feel my family often do things which upset and worry me	0	1	2	3	4

G. Please answer these questions if you are married or have a partner at present or within the last 2 years. If not please go on to section H.

	Not true				Very true
1. I rarely try to explain my feelings to my partner	0	1	2	3	4
2. My partner often pushes me around	0	1	2	3	4

	Not true				Very true
3. I tend not to take my full share of responsibilities at home	0	1	2	3	4
4. I frequently feel ignored by my partner	0	1	2	3	4
5. My partner and I tend not to make decisions together	0	1	2	3	4
6. I am totally dependent on my partner	0	1	2	3	4
7. My partner and I often argue	0	1	2	3	4
8. There seems to be a lot of 'tension' in my relationship with my partner	0	1	2	3	4
9. It doesn't really bother me when there is friction in our relationship	0	1	2	3	4
10. I feel my relationship has some serious short-comings	0	1	2	3	4

H. Please answer the following questions if you have your own children (including step children). If not, please go on to section I.

1. I often find it difficult to say 'no' to my child, even when it might seem necessary	0	1	2	3	4
2. My child frequently makes me quite angry	0	1	2	3	4
3. I find it difficult to feel warm towards my child	0	1	2	3	4
4. rarely play games and have fun with my child	0	1	2	3	4
5. I often feel it is difficult to know what my child is thinking	0	1	2	3	4
6. I think I find being a parent more difficult than other people	0	1	2	3	4
7. I sometimes don't feel very comfortable showing physical affection to my child	0	1	2	3	4
8. I often think it is difficult to get in touch with how my child is feeling	0	1	2	3	4
9.I find it difficult to talk to and listen to my child	0	1	2	3	4
10. I sometimes wish my child showed more affection to me	0	1	2	3	4

I. Next, please answer the following questions by rating how true each statement is for you, where 0 means the statement is not true of you and 5 means it is very true of you:

	Not true				Very true
1. I am easier to get to know than most people	0	1	2	3	4 5
2. I have more self-doubts than most people	0	1	2	3	4 5
3. People almost always like me	0	1	2	3	4 5
4. People often misunderstand me or fail to appreciate me	0	1	2	3	4 5
5. Few people are as willing and able as I am to commit themselves to a long-term relationship	0	1	2	3	4 5
6. People are generally well intentioned and good hearted	0	1	2	3	4 5
7. You have to watch out in dealing with most people; they will hurt, ignore, or reject you if it suits their purposes	0	1	2	3	4 5
8. I am more independent and self-sufficient than most people; I can get along quite well by myself	0	1	2	3	4 5

J. Please read the following short descriptions and rate how true each of the statements is for you

1. I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't often worry about being abandoned or about someone getting too close to me

Not true for me					Very true for me
0	1	2	3	4	5

2. I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want to be more intimate than I feel comfortable being

Not true for me					Very true for me
0	1	2	3	4	5

3. I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to merge completely with another person, and this desire sometimes scares people away.

Not true for me					Very true for me
0	1	2	3	4	5

K. The following questions are about things you may find hard to do with other people. As before, simply circle one of the numbers which most describes you.

It is hard for me to:	Not at all	A little bit	Moder-ately	Quite a bit	Definitely	
1. Join in on groups		0	1	2	3	4
2. Be assertive with another person		0	1	2	3	4
3. Make friends		0	1	2	3	4
4. Disagree with other people		0	1	2	3	4
5. Make a long-term commitment to another person		0	1	2	3	4
6. Be aggressive toward other people when the situation calls for it		0	1	2	3	4
7. Socialise with other people		0	1	2	3	4
8. Show affection to people		0	1	2	3	4
9. Feel comfortable around other people		0	1	2	3	4
10. Tell personal things to other people		0	1	2	3	4
11. Be firm when I need to be		0	1	2	3	4
12. Experience a feeling of love for another person		0	1	2	3	4
13. Be supportive of another person's goals in life		0	1	2	3	4
14. Really care about other people's problems		0	1	2	3	4
15. Put somebody else's needs before my own		0	1	2	3	4
16. Take instructions from people who have authority		0	1	2	3	4
17. Open up and tell my feelings to another person		0	1	2	3	4
18. Attend to my own welfare when somebody else is needy		0	1	2	3	4
19. Be involved with another person without feeling trapped		0	1	2	3	4

The following questions are about things that you may do *too much*:

	Not at all	A little bit	Moder-ately	Quite a bit	Definitely
20. I fight with other people too much	0	1	2	3	4
21. I get irritated or annoyed too easily	0	1	2	3	4
22. I want people to admire me too much	0	1	2	3	4
23. I am too dependent on other people	0	1	2	3	4
24. I open up to people too much	0	1	2	3	4
25. I put other people's needs before my own too much	0	1	2	3	4
26. I am overly generous to other people	0	1	2	3	4
27. I worry too much about other people's reactions to me	0	1	2	3	4
28. I lose my temper too easily	0	1	2	3	4
29. I tell personal things to other people too much	0	1	2	3	4
30. I argue with other people too much	0	1	2	3	4
31. I am too envious and jealous of other people	0	1	2	3	4
32. I am affected by another person's misery too much	0	1	2	3	4

L. Please tell us how much you agree with each of the statements below. As before just circle the number which best describes you, 0 means that you don't agree at all and 4 means that you strongly agree:

	Strongly disagree				**Strongly agree**
1. On the whole I am satisfied with myself	0	1	2	3	4
2. At times I think I am no good at all	0	1	2	3	4
3. I feel that I have a number of good qualities	0	1	2	3	4
4. I am able to do things as well as most people	0	1	2	3	4
5. I feel that I do not have much to be proud of	0	1	2	3	4
6. I certainly feel useless at times	0	1	2	3	4
7. I feel that I am a person of worth, at least on an equal plane with others	0	1	2	3	4
8. I wish I had more respect for myself	0	1	2	3	4

	Strongly disagree				Strongly agree
9. All in all, I am inclined to feel that I am a failure	0	1	2	3	4
10. I take a positive attitude toward myself	0	1	2	3	4

M. Finally, please use the space below to make any comments or tell us anything important which you think we have forgotten to ask.

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We want to follow-up this questionnaire by interviewing some people in more detail, although we will not be able to see everybody. The interview lasts 1 to 1½ hours. If you are NOT willing to be contacted, please tick the box

☐

Please return the completed questionnaire in the FREEPOST envelope provided, to : Jill Hodges, Behavioural Sciences Unit, Institute of Child Health, University of London, 20, Guilford Street, London, WC1N 8BE.

Thank you very much.

APPENDIX 2

LETTERS TO PARTICIPANTS AND GENERAL PRACTITIONERS

1. LETTER OF INITIAL CONTACT VIA PAST ADDRESS
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INITIAL CONTACT LETTER

Date

Name
Address

Dear _____,

I am writing in connection with a research project you were involved in during the early 1980s. You may remember that I, or another researcher, met with you when you were 16 to interview you about a number of issues concerning young people's lives. Now some fifteen-odd years later, it would be of enormous benefit and interest to the research if you would agree to participate in a brief follow-up study.

In order to protect the confidentiality of all those involved, this letter is intended only as a way of making contact with you again, without committing you to take part.

It may be that you no longer live at the address on our research records, or use a different name. I enclose a freepost envelope for you to send me contact details on the tear-off slip below, where I might send you information about the study, and a questionnaire if you agree to participate. We are offering a payment of £10 as a small token of thanks for taking part.

We would also be very interested in interviewing you again if you are willing, and will send you information about this too.

I would be very grateful if you can let me know where I might contact you again directly, by completing the enclosed form and returning it to me.

With best wishes,

Jill Hodges
Consultant Child Psychotherapist and
Honorary Senior Lecturer.

(Please return this section - it does not commit you to take part)
[Research records name: _____]

Name

Address

Phone number, if possible

Thank you

INITIAL LETTER FOLLOWING TRACING

Date

Dear _____,

I am writing in connection with a research project you were involved in as a child/teenager. You might possibly remember that I, or another researcher, met with you and your parents to interview you about a number of issues concerning young people's lives. Now, many years later, it would be of enormous benefit and interest to the research if you would agree to participate in a brief follow-up study.

We were able to contact many people at their past addresses, and others like yourself via your Local Health Authority.

We enclose some information about the study. If having read it your feel willing to help, please complete the questionnaire and return it to us, with the signed consent form, in the enclosed stamped addressed envelope. We will acknowledge receipt of the questionnaire and send you £10 in appreciation of your time and help.

If you decide not to take part, please would you let us know, using the enclosed s.a.e., so that we know that you do not want us to contact you again.

Thank you.

Yours sincerely

Jill Hodges
Consultant Child Psychotherapist and
Honorary Senior Lecturer.

NAME: _____ **Subject no.**

I have received your letter of [date] but have decided I do not want to take part in this research.

Signed _____

LETTER FOLLOWING CONTACT

Date

Dear _____,

Thank you very much for letting me know where to contact you with details of the research study. It was good to hear back from you, and I do hope you'll feel able to take part.

I enclose (1) an information sheet about the study
(2) a questionnaire and the General Health Questionnaire for you to complete if you are willing.
(3) a consent form

I've also enclosed an envelope for you to return the questionnaires and consent form to me. We'll acknowledge receipt, and send you £10 as a token of thanks for your time and input. I've left a bit of space at the end of the questionnaire for any important things we may have missed out, so please do make use of it!

With best wishes,

Yours sincerely

Jill Hodges.
Consultant Child Psychotherapist and
Honorary Senior Lecturer.

LETTER TO GENERAL PRACTITIONER

Date

Dear Dr. ,

Re:_____ , DOB:

_____, as a child and young person, was part of a follow-up study, which we are now trying to continue into adulthood. Where we have not been able to contact people via their previous addresses, we have traced them through their Local Health Authority, and we understand that _____ is currently your patient. We attach an information leaflet and copy of our Ethical Committee permission.

We would be grateful if you would be kind enough to pass the enclosed envelope, which contains a letter, information sheet, consent form and questionnaire, on to _____.

Please do not hesitate to contact me if you wish to discuss this further. I am most easily contacted at 0171-829-8679 (Department of Psychological Medicine, Great Ormond Street Hospital).

Yours sincerely

Jill Hodges BA MSc PhD
Consultant Child and Adolescent Psychotherapist
and Honorary Senior Lecturer, Institute of Child Health.

FIRST REMINDER following contact

Date

Dear _____,

A few months ago you kindly confirmed your current address to us and we sent you a questionnaire and some information about the research we are carrying out. We haven't yet received it back from you, so in case it didn't get to you or you have mislaid it we enclose another copy together with an information sheet, a consent form and a stamped addressed envelope for you to return it to us.

Even if you feel you can't complete the whole questionnaire, we would be very glad to have any information that you feel able to give, and would still send you £10 in appreciation of your time and help.

If however you have decided not to take part in this study, **please would you let us know**, by returning the slip below.

Thank you. We look forward to hearing from you.

Yours sincerely

Jill Hodges
Consultant Child Psychotherapist and
Honorary Senior Lecturer.

NAME: _____ **Subject No.**

I have received your letter of [Date] but have decided I do not want to take part in this research.

Signed _____

FIRST REMINDER following tracing

Date

Dear _____,

A little while ago we wrote to you to invite you to take part in a research project that we are carrying out, that is linked to the study that you took part in some years ago. Together with that letter we enclosed a questionnaire and some information about the study. We haven't yet heard back from you, and we thought that it might have got mislaid or else you had decided that you didn't want to take part. So in case you didn't receive it or have mislaid the questionnaire, we enclose another copy for you to fill in if you felt able, together with an information sheet, a consent form and a stamped addressed envelope for you to return it to us.

Even if you feel you can't complete the whole questionnaire, we would be very glad to have any information that you feel able to give, and would send you £10 in appreciation of your time and help.

If however you have decided not to take part in this study, **please would you let us know**, by returning the slip below.
Thank you. We look forward to hearing from you.

Yours sincerely

Jill Hodges
Consultant Child Psychotherapist and Honorary Senior Lecturer.

NAME: **Subject No.**

I have received your letter of [Date] but have decided I do not want to take part in this research.

Signed _____

FINAL REMINDER

Date

Dear _____,

You may remember that some months ago we invited you to take part in a research project that we are carrying out, that is linked to the study that you took part in when you were younger. We sent you a questionnaire together with some information about the study, and a little while ago we sent you another questionnaire in case you had misplaced the first one. However we have not yet received one of these questionnaires back from you, and we thought that it might have got mislaid or else you had changed your mind about taking part.

This is the last time that we will write to you and would like to ask you finally that, if you feel able, we would greatly appreciate it if you would complete the questionnaire and return it to us. If you would like to take part in this study and fill in the questionnaire but have mislaid it, please call this number (Jill Hodges : 0171-829-8679) and we will send you another copy.

Even if you feel you can't complete the whole questionnaire, we would be very glad to have any information that you feel able to give, and would still send you £10 in appreciation of your time and help.

If we haven't heard from you within a month we will assume that you have decided that you do not want to take part.

Thank you. We look forward to hearing from you.

Yours sincerely

Jill Hodges
Consultant Child Psychotherapist and
Honorary Senior Lecturer.

ACKNOWLEDGEMENT LETTER

Date

Dear _____,

Thank you very much for returning the questionnaire and other forms to us. It has been very helpful to the study to be able to include you again.

Please find enclosed a £10 postal order as a token of our thanks to you for your time and help.

Best wishes,

Yours,

Jill Hodges
Consultant Child Psychotherapist and
Honorary Senior Lecturer.

APPENDIX 3

ADDITIONAL DOCUMENTS FOR PARTICIPANTS AND GENERAL PRACTITONERS

1. INFORMATION SHEET FOR EX-INSTITUTIONAL GROUP
2. INFORMATION SHEET FOR COMPARISON GROUP
3. CONSENT FORM
4. ETHICS COMMITTEE AUTHORISATION

FOLLOW-UP STUDY

INFORMATION ABOUT THE STUDY

We interviewed you for this project when you were a child and when you were 8 or 16 years old, and would like to ask you to take part again.

The aim of the study.
To look at the links between relationships in adulthood, and experiences and relationships in adolescence and childhood.

Why is the study being done?
It used to be thought that if children lacked a mother figure in their very early lives, for instance through living in a nursery as infants, their later development would suffer badly. Later research, including the earlier stages of this study, has shown that this is not the case, and that children who have not had a "parent" until after babyhood can form very good attachment relationships when they become part of a family. However, there is no research information available beyond adolescence. We aim to study the picture in adulthood, when people have moved out of the families they grew up in and are living independently, sometimes with their own partner and children

How is the study to be done?
The study will be done in two parts. In the first part we are trying to collect some basic information by post from all the people whom we interviewed at 8 or 16. In the second part, those people who are willing to meet with us for an interview will be asked about themselves in more detail. Even if you decide not to join in the second part we still hope that you will feel able to help with the first.

First part.
We are asking you to complete the 2 questionnaires which are enclosed. These are confidential and are focused around your own views of yourself and others. They are not a test and there are no "right" or "wrong" answers. There is a prepaid envelope for you to return them. We are also asking you at this stage to let us know if you would be willing for us to interview you later.

Second part.
If you agree to be interviewed, we may contact you to arrange a convenient time and place for a researcher to visit you.
The interview covers some of the same areas as the questionnaire but in more detail and based on your own words and impressions. It will last approximately one and a half to two hours. It will be audiotape-recorded, so that we have an accurate record for research, and so that during the interview the researcher can concentrate on what you are saying rather than on taking notes.

Who will have access to the research records?
Only the research team and a representative of the Research Ethics Committee will have access to the data collected in this study.

Do I have to take part in this study?
If you decide, now or at a later stage, that you do not wish to participate in this research

project, that is entirely your right.

Who do I speak to if problems arise?
If you have any complaints about the way in which this research project has been, or is being conducted, please, in the first instance, discuss them with the researcher. If the problems are not resolved, or you wish to comment in any other way, please contact the Chairman of the Research Ethics Committee, by post via the Research and Development Office, Institute of Child Health, 30 Guildford Street, London, WC1N 1EH, or if urgent by telephone on 0171 242 9789 ex 2620, and the Committee administration will put you in contact with him.

How to contact the researcher.
You can contact Jill Hodges by post via the Behavioural Sciences Unit, Institute of Child Health, 30 Guildford Street, London WC1N 1EH; or if urgent by telephone on 0171 829 8679, the Department of Psychological Medicine, where you can leave a message if Dr Hodges is not available to speak when you ring.

FOLLOW-UP STUDY

INFORMATION ABOUT THE STUDY

We interviewed you for this project when you were 16 years old, and would like to ask you to take part again.

The aim of the study.
To look at the links between relationships in adulthood, and experiences and relationships in adolescence and childhood.

Why is the study being done?
We are studying a group of people who have had very different experiences in childhood. Some grew up always living in their families, others spent some time in residential care and moved to new families. There is little research information available on any possible effects of these childhood experiences upon development in adulthood. We aim to study the adult picture, when generally people have moved out of the families they grew up in and are living independently, sometimes with their own partner and children.

How is the study to be done?
The study will be done in two parts. In the first part we are trying to gather information by post from all the people whom we interviewed at 16. In the second part, those people who are willing to meet with us for an interview will be asked about themselves in more detail. Even if you decide not to join in the second part we still hope that you will feel able to help with the first.

First part.
We are asking you to complete the 2 questionnaires which are enclosed. These are confidential and are focused around your own views of yourself and others. They are not a test and there are no "right" or "wrong" answers. There is a prepaid envelope for you to return them. We are also asking you at this stage to let us know if you would be willing for us to interview you later.

Second part.
If you agree to be interviewed, we may contact you to arrange a convenient time and place for a researcher to visit you.
The interview covers some of the same areas as the questionnaire but in more detail and based on your own words and impressions. It will last approximately one and a half to two hours. It will be audiotape-recorded, so that we have an accurate record for research, and so that during the interview the researcher can concentrate on listening rather than on taking notes.

Who will have access to the research records?
Only the research team and a representative of the Research Ethics Committee will have access to the data collected in this study.

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Do I have to take part in this study?
If you decide, now or at a later stage, that you do not wish to participate in this research project, that is entirely your right.

Who do I speak to if problems arise?
If you have any complaints about the way in which this research project has been, or is being conducted, please, in the first instance, discuss them with the researcher. If the problems are not resolved, or you wish to comment in any other way, please contact the Chairman of the Research Ethics Committee, by post via the Research and Development Office, Institute of Child Health, 30 Guildford Street, London, WC1N 1EH, or if urgent by telephone on 0171 242 9789 ex 2620, and the Committee administration will put you in contact with him.

How to contact the researcher:
You can contact Jill Hodges by post via the Behavioural Sciences Unit, Institute of Child Health, 30 Guildford Street, London WC1N 1EH; or if urgent by telephone on 0171 829 8679, the Department of Psychological Medicine, where you can leave a message if Dr Hodges is not available to speak when you ring.

Great Ormond Street Hospital for Children NHS Trust and
Institute of Child Health Research Ethics Committee

Consent Form for PARTICIPANTS in Research Studies

96BS16 Adult outcome of early institutional care: Dr J Hodges.

NOTES FOR PARTICIPANTS

1. You have been asked to take part in some research. The person organising that study must explain the project to you before you agree to take part.

2. Please ask the researcher any questions you like about this project, before you decide whether to join in.

3. If you decide, now or at any other time, that you do not wish to be involved in the research project, just tell us and we will stop the research. If you are a patient your treatment will carry on as normal.

4. You will be given an information sheet which describes the research. This information is for you to keep and refer to at any time. *Please read it carefully.*

5. If you have any complaints about the research project, discuss them with the researcher. If the problems are not resolved, or you wish to comment in any other way, please contact the Chairman of the Research Ethics Committee, by post via The Research and Development Office, Institute of Child Health, 30 Guilford Street, London, WC1N 1EH or if urgent, by telephone on 071 242 9789 ex 2620 and the committee administration will put you in contact with him.

CONSENT

I _____ agree that the Research Project named above has been explained to me to my satisfaction, and I agree to take part in this study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

SIGNED **SIGNED (Researcher)**

_____

Institute of Child Health

and Great Ormond Street Hospital for Children NHS Trust

UNIVERSITY COLLEGE LONDON MEDICAL SCHOOL

The child first and always

30 Guilford Street
London WC1N 1EH

Direct Line: 0171 813 8290
Direct Fax: 0171 813 8234

23 October 1996

Dr J Hodges
Consultant Child Psychotherapist
Behavioural Sciences Unit
ICH

Dear Dr Hodges

96BS16 Adult outcome of early institutional care.

Notification of ethical approval

The above research has been given ethical approval after review by the Great Ormond Street Hospital for Sick Children NHS Trust / Institute of Child Health Research Ethics Committee subject to the following conditions.

1. Your research must commence within twelve months of the date of this letter and ethical approval is given for a period of 12 months from the commencement of the project. If you wish to start the research more than twelve months from the date of this letter or extend the duration of your approval you should seek Chairman's approval.
2. You must seek Chairman's approval for of proposed amendments to the research for which this approval has been given. Ethical approval is specific to this project and must not be treated as applicable to research of a similar nature, ie. using the same procedure(s) or medicinal product(s). Each research project is reviewed separately and if there are significant changes to the research protocol, for example in response to a grant giving bodies requirements you should seek confirmation of continued ethical approval.
3. It is your responsibility to notify the Committee immediately of any information which would raise questions about the safety and continued conduct of the research.
4. Specific conditions pertaining to the approval of this project are:
   - The use of the enclosed standard consent forms for the research. A copy of the signed form must be kept by you with the research records.

Yours sincerely

Anna Jenkins

Anna Jenkins
Secretary to the Research Ethics Committee

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