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ABSTRACT

Noting that there has been little research attention on the ability of foster children to form emotional attachments, this literature review looks at available research related to attachment and children in foster care. The review suggests that foster children are at risk for insecure attachment due to experiences of abuse and neglect, parental substance abuse, and repeated separations from primary caregivers. The review also maintains that there is sufficient evidence to indicate that these poor early attachments may lead to relational and other problems as foster children grow older. Despite limitations in experimental design such as inconsistent definitions of attachment and the use of nonstandardized measures, the review finds significant cause for concern, particularly in light of the increasing number of children entering the foster care system. The review concludes with a discussion of implications for foster care policy and recommendations for future research. (Contains 89 references.) (KB)

ATTACHMENT AND FOSTER CHILDREN:

A REVIEW OF THE LITERATURE

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by

Kendra J. M. Klassen

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ABSTRACT

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Though foster children have been studied for years, focus on their ability to attach is relatively new. The research reviewed in this paper suggests that these children are at risk for insecure attachment due to experiences of abuse and neglect, parental substance abuse, and repeated separations from primary caregivers. There is also sufficient evidence to indicate that these poor early attachments may lead to relational and other problems as foster children grow older. Despite limitations in experimental design, such as inconsistent definitions of attachment and the use of nonstandardized measures, there is significant cause for concern, particularly in light of the increasing number of children entering the foster care system. Implications for foster care policy and recommendations for future research are provided.

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ATTACHMENT AND FOSTER CHILDREN:

A REVIEW OF THE LITERATURE

Introduction

In 1996 over 3 million children in the United States were removed from their homes due to child abuse and/or neglect, as reported by the National Data Analysis System of the Child Welfare League of America (1999). Many of these children eventually find themselves in foster care, including group homes, foster families, or residential care, with presumably safer environments. If you can imagine yourself unable to trust the person you count on for survival, then placed with unknown caregivers and faced with an uncertain future, you may have an idea as to what these children go through.

The number of foster children is on the rise. By the end of 1997, approximately 50 thousand children in the United States were living in foster care, based on an estimate of reports from 25 states. Children are eligible for foster care from birth until emancipation at 18 or 19 years old. However, most children in care (82%) are between the ages of 1 and 15 years ($\underline{M}$ = 9.53 years). The ethnic distribution of children in foster care is primarily Black (46%), White (32%), and Hispanic (15%), with a fairly even distribution between boys and girls (Adoption and Foster Care Analysis and Reporting System [AFCARS], 1998).

Most foster children are placed due to neglect or abuse, and they frequently come from single parent homes with a low socioeconomic background (e.g., Marcus, 1991; Palmer, 1996; Poulin, 1992). Eventually, some may be returned to their biological parents or another family member, some are adopted, and others remain in the foster care system until emancipation. The likelihood of exiting the system decreases with length of time in stay. Although approximately 37 % of foster children are discharged before 1 year, those that remain are likely to be in care for up to 3 to 4 (17%) or beyond 5 years (21%; AFCARS, 1998). Current legal trends place an emphasis on permanency planning and reunification with the child's biological parent. Part of the federal Adoption Assistance and Child Welfare Act of 1980 (P.L. 96-272) mandates that children in placement be reunified with their biological parent(s) whenever possible.

The ideal is for a child to be placed in a single foster home until a permanent plan for placement can be implemented. However, for various reasons, this is often not the case. In her summary of the existing research on placement disruption, Palmer (1996) described how anywhere from 20% to 55% of children who have been in foster care for 2 years have already experienced three or more placements. A small percentage of these children (around 15%) may experience more than five or six moves during this time. Such estimates usually do not include the child's initial placement in an emergency or receiving home, which is common practice for many agencies. Children are often held in these group facilities until a more suitable placement is available or a permanency plan is established.

Foster children are considered "at risk" regarding their ability to form healthy attachments for a variety of reasons. They frequently experience child abuse and neglect

and live with substance abusing parents, leading to placement. Then, along with the initial trauma of being removed from their homes, foster children are often exposed to repeated separations during care. Experiencing maltreatment and having a drug-addicted caregiver are both confounding variables which have been shown to be associated with poor attachment, regardless of foster care experience. While in foster care, children demonstrate much of the pathology associated with poor, or insecure, attachment. Though no direct, causal relationship has been established, it is hypothesized that the symptoms of pathology are a result of poor attachment, which is either developed or exacerbated during the experience of foster care.

The purpose of this investigation is to review and critique the literature regarding the relationship between foster care and attachment. Literature examined deals with the experiences of children currently in foster care and those who experienced foster care while growing up. In order to provide a background for the discussion of foster children and attachment, a description of the overall functioning of foster children and attachment is first presented. Secondly, methodological considerations are reviewed, followed by results of research on attachment and foster children. Although previous reviews were found that addressed pathology in foster children or the attachments of other populations, little attachment research has been conducted with the foster care population and there are no current reviews of the topic.

The intent of this review is to evaluate the research available and to suggest direction for the field regarding the study of attachment and foster children. Attachment research related to the confounding variables of maltreatment and maternal substance abuse are considered for the purpose of comparison. A critique of an extensive

longitudinal study on the effects of early institutional rearing is also included in order to examine the unique effects of poor attachment. The review is concluded with a summary of findings, implications for foster care policy, and recommendations for future research.

The Functioning of Foster Children

In 1995, Pilowsky reviewed the literature on children in family foster care to examine the type and prevalence of psychopathology in this population. He notes that, during the period from 1974 to 1994, the earlier literature (that of the 1970s and early 1980s) described a high frequency of pathology among foster children. However, these studies consisted of information based primarily on descriptive clinical data or gathered through interviews. When measuring scales were used, they "lacked normative data, were vaguely defined, and had unknown psychometric properties" (p. 907).

Later research utilized more standardized instruments, typically Achenbach's Child Behavior Checklist (CBCL), and found prevalency rates of pathology in foster children to be between 29% and 48%, up to 32 times greater than home-reared children (e.g., McIntyre & Keesler, 1986). Pilowsky (1995) suggested that the wide variation in findings related to foster children is likely due to methodological or demographical differences among the groups being studied. Although results are somewhat inconclusive, one finding that is relatively consistent is the prevalence of conduct disorder-type symptoms among foster children. Several studies found that children in foster care were more likely to participate in what Achenbach termed externalizing or antisocial behaviors (e.g., Fanshel & Finch, 1990; McIntyre & Keesler, 1986).

In Pilowsky's (1995) review, the frequency of psychopathology among children living with foster families was noted to be significantly higher than both normal and economically disadvantaged populations. Children who had been abused, whether or not they were in foster care, showed more pathology than nonabused children. In a study discussed more fully in the section on Attachments of Foster Children, Marcus (1991) found foster children scored midway between the clinical and nonclinical samples used in norming the CBCL. Based on the large standard deviation in the sample of foster children, Marcus concluded that "although both elevated and normal profiles are likely in foster care children, a greater likelihood exists for more elevated profiles in foster children than in a sample of children not in foster care" (p. 383).

When placed in foster care after living for any length of time in an environment of abuse or neglect, it is not clear that the foster care is the critical factor in the potential for psychopathology. Yet regardless of the cause, foster children do seem to have a higher risk for pathology while in care. However, results of research conducted after discharge suggest that the long-term effects of the foster care experience are not as negative as might be supposed. Maluccio and Fein (1985) reviewed the research published from 1960 to 1983 regarding the functioning of subjects who spent time in foster care. Most assessment was done by interviewing subjects as adults or several years after discharge. The majority of the subjects seemed to be faring well and indicated that they had no more problems than their peers (e.g., Fanshel & Shinn, 1978). Thus, the authors concluded that the foster care experience does not necessarily result in long-term pathology. However, they emphasized that results are not conclusive due to numerous methodological

problems in the research, such as small sample sizes, lack of control groups, biased sampling, retrospective data collection, and incomplete records.

In summary, from results of the research it seems evident that, although foster children likely have a higher risk for problems during care, the foster care experience does not necessarily result in long-term pathology. However, multiple risk factors and methodological limitations make it difficult to determine whether foster care is a critical factor in the potential for psychopathology. In light of the foster child's increased risk for behavioral problems, due to pre-placement trauma or their stay in care, it is likely that their ability to form healthy attachments may also be at risk. Attachment is also viewed as a potential mitigating factor in whether or not pathology occurs. A review of the concept of attachment follows.

Attachment

In response to early studies on the compromised development of institutionalized infants (e.g., Goldfarb, 1945), John Bowlby (1969) developed the theory of attachment. His theory is an ethological approach, based on evolutionary precepts, which deals with an infant's response to separation from his or her caregiver. Attachment theory is therefore particularly relevant to the experience of foster children, who are faced with a traumatic and often repeated experience of separation due to the very nature of the foster care system in which they are involved. The following is a review of the theory of attachment and the influence of attachment on development.

Attachment Theory

According to Bowlby (1969, 1973), attachment develops through primary relationships during the second half of a child's first year. The need for attachment is believed to be innate, having as its biological function the provision of physical and psychological security for the infant. The attachment behavioral system consists of neurologically ingrained behaviors that have as their goal the maintenance of proximity to significant others who will provide protection and insure survival. Such behavior (e.g., crying, clinging, and smiling) is usually directed toward the primary caregiver, or one or two individuals who have close, regular contact with the infant. Caregiving is a complementary behavior to attachment in that the caregiver protects the attached being. Maintenance of the attachment bond is experienced as a source of security. The threat of loss of the attachment bond or figure arouses anxiety, while actual loss causes sorrow and often leads to anger (Bowlby, 1980). If and when the bond is renewed, such renewal is typically a source of great joy.

In order to develop a secure attachment to his or her caregiver, the infant needs someone who is sensitive and responsive during daily feeding, play, and times of distress. Sensitivity refers to appropriate responses to the child's various verbal and nonverbal messages and is particularly important in the first years of life (Bowlby, 1969). As the child grows older, toward the end of the first year, he or she begins to take a more active role in the interaction with the primary caregiver. Through this interaction, a child develops what Bowlby (1973) termed an "internal working model" of self and the attachment figure. Though influenced strongly by the first years of life, this inner organization, along with the outward, behavioral manifestations of attachment, continues

to develop throughout the life-span, based both on genetic inheritance and the influence of environment (Ainsworth, 1989). It is thus a fluid, yet consistent, construct.

Bowlby (1969) explained that the child who does not have the sensitive attachment figure described above, or who receives inconsistent attention, will develop an insecure internal working model. Due to the inconsistency and/or insensitivity of their caregiver, the child learns to perceive the attachment relationship as an unreliable source of comfort and protection. Because they learn that their cues will not be acknowledged, such children cease to expect a response, and therefore, to communicate. Studies of reactions to long-term separation (Bowlby, 1973) suggest that children first exhibit protest and anger and then despair, in response to separation from the primary caregiver. These behaviors may by particularly pronounced in insecurely attached children. Those in a state of despair are characterized by dejection, stupor, decreased activity, and withdrawal. Eventually, this may lead to detachment in which the child is indifferent or even hostile towards the caregiver.

In an effort to study individual differences in attachment, Mary Ainsworth developed the Strange Situation procedure (Ainsworth & Bell, 1970). Based on Bowlby's theory, the procedure involves 8 three-minute sequences including the mother, the child, and a stranger. These sequences are observed in a laboratory and coded based on the infant's behavioral reactions to the following: a) being placed in a new environment, b) being separated from mother, c) being in the presence of a stranger, both with and without mother, and d) reunion with mother. The Strange Situation procedure has been extensively validated and shown to be both reliable and consistent with home

behavior (Ainsworth, Blehar, Waters, & Wall, 1978). Its appropriateness for the research reviewed later will be discussed in the methodological section.

According to Ainsworth's research (e.g., Ainsworth et al., 1978), three main styles of attachment are said to exist: secure (group B), anxious-avoidant (group A), or anxious-resistant/ambivalent (group C), depending on the infant's relationship with its primary caregiver. A secure attachment style is demonstrated by exploration of the environment in the presence of mother, along with actively seeking out the mother upon being reunited with her after separation. Secure attachment is understood to be a result of a consistent, caring, confident relationship between caregiver and infant, in which the infant is allowed freedom to actively participate in the world. Such a secure base allows the infant to take risks and explore the world with minimal fear.

Insecure or anxious attachments are demonstrated by behavior in which the infant either explores the environment unhindered and avoids or ignores the mother upon reunion (anxious-avoidant), or shows impoverished exploration and is resistant or ambivalent towards mother upon her return (anxious-resistant/ambivalent). The resistant/ambivalent infant is unable to be comforted by mother if distressed. This attachment style is associated with a caregiver who is overly controlling or responds inconsistently. An avoidant attachment style is presumed to result when the infant's attempts to connect with a caregiver are repeatedly refused. Children exhibiting the protest and anger described by Bowlby (1973) are likely to behave as resistant, whereas those in despair or detachment are more likely to be avoidant. Bowlby (1988) also described a style similar to that of avoidant attachment, related to real or perceived abandonment such as might be experienced by children in the foster care system.

In their use of the Strange Situation procedure, Main and her colleagues recently discovered indications of a third attachment style, which has been labeled disorganized (e.g., Main & Solomon, 1986). Characteristic behaviors in this category include the following: aimlessly wandering around the room; crying while the parent is absent, followed by rejection upon the parent's return; repetitive movements and unusual postures; unclear or contradictory communication with the caregiver and the stranger, such as smiling while being aggressive; trance-like expressions; compulsive compliance; periods of complete stillness; and displays of apprehension and fear. In summary, disorganized children appear dazed, aimless and confused, and are unclear in their communication of affect. Disorganized behavior has been considered characteristic of maltreated and drug-exposed infants, but is usually force-classified as either avoidant or resistant attachment due to lack of standardization (e.g., Rodning, Beckwith, & Howard, 1992).

Influence of Attachment Styles

The strong emotional ties of secure attachment are considered necessary for mental health (Bowlby, 1988). In general, people with a secure attachment style will likely find it relatively easy to get close to others and participate in reciprocal relationships where each person can depend on the other. Those who are avoidant might be uncomfortable with getting close to others, finding it difficult to trust or depend on anyone. Resistant or ambivalently attached people may want more closeness than others are comfortable giving, tending to worry that those they care about will abandon them.

Marcus (1991) highlighted the importance of security as shown in attachment research. For example, securely attached infants develop better quality relationships with

others as they get older. They also tend to have healthier social, emotional, and cognitive functioning, and secure infant attachment is associated with other types of affectional bonds that develop during the entire life span (Ainsworth, 1989). In contrast, after reviewing the research, Lamb, Gaensbauer, Malkin, and Shultz (1985) concluded that insecure infant attachment is likely to be associated with deficient social skills and problem-solving behavior as much as 3 years later. Fahlberg (1979) suggested the following as consequences of broken childhood attachments, such as those that occur with foster children: impaired conscience, poor cause and effect awareness, difficulties in verbal expression, motor skill delays, inconsistent levels of development and failure to negotiate critical developmental tasks.

In their summary of the attachment literature, Penzerro and Lein (1995) described additional effects found to be associated with negative attachment styles. The authors concluded that avoidant children are more likely to have learning problems in school. In addition, insecurely attached children tended to be less selective regarding relationships, and anxious-avoidant preschool children were described by their teachers as hostile and socially isolated from peers (e.g., Sroufe & Egeland, 1991). Penzerro and Lein (1995) summarized, "anxiously attached children at 42 months are 'less ego-resilient, less independent, less compliant, less empathic, less socially competent, [and] lower in self-esteem' than securely attached children" (p. 353).

Overall, insecure attachment seemed to lead to aggression, antisocial behavior, and a tendency to misread environmental and interpersonal cues, inappropriately attributing negative or hostile intent to others. Penzerro and Lein (1995) suggested that the evolution of a child's coping skills is influenced by his or her attachment history, so

that people with avoidant histories tend to develop a posture of defensive denial in relationships. Such a posture results in unsatisfactory relationships that perpetuate the cycle. It also causes particular vulnerability during times of stress because the avoidant person is unable to gain comfort from others. There is additional evidence that early attachment patterns continue to influence a person over time, even into adulthood.

The construct of attachment shows both continuity and change over development and can be predicted by infant attachment status. Main and her associates (e.g., Main & Cassidy, 1988) provided evidence of the continuity of attachment styles over time. They found that the behaviors representing secure and insecure attachments were as similar in 6-year-olds as they were in infants. Still others have found support for the importance of early attachment relationships in predicting children's later functioning. As part of a longitudinal investigation, Erickson, Sroufe and Egeland (1985) examined the preschool behavior of ninety-six 4.5- to 5-year-old firstborn children of mothers previously identified as at risk for caretaking problems. Attachment styles had been determined at 12 and 18 months using the Strange Situation procedure. Their results showed that the quality of infant attachment was a strong predictor of preschool behavior.

The effects of poor attachment in infancy may continue throughout the life span because "the way in which [a person's] individual attachment behavior becomes organized within the personality influences the pattern of bonds that the person makes throughout life" (Grigsby, 1994, p. 270). Ainsworth et al. (1978) described how children with generally responsive and sensitive caregivers as infants appear more likely to approach later attachment relationships with the expectation of support and responsiveness, if their life experiences remain reasonably consistent.

Attachment behavior patterns are likely to remain strong into adulthood. Hazan and Shaver (1987) found evidence for the relationship of different attachment styles to romantic love. The reported histories of respondents in their study illustrate how relationships with parents tend to differentiate adult attachment styles. In a preliminary study on the relationships between childhood adversity, attachment security, and adult relationships, Hill, Young, and Nord (1994) administered the Hazan and Shaver Adult Attachment Questionnaire (Hazan & Shaver, 1987) to 40 adult subjects, 20 men and 20 women, ranging in age from 19 to 30 years old ($\underline{M}$ = 24.8, $\underline{SD}$ = 3.8).

Based on scores for the relationship subscales of the Social Adjustment Scale (Weissman & Bothwell, 1975), nonsecurely attached subjects reported significantly worse social adjustment with friends ($\underline{n}$ = 16, $\underline{p}$ = .01) and with marital partners ($\underline{n}$ = 6, $\underline{p}$ = .01). Though not statistically significant, only 37.5% of nonsecurely attached subjects ($\underline{n}$ = 16) had attained enduring marriages or cohabitating relationships compared to 62.5% of attached subjects ($\underline{n}$ = 24). Separations or divorces had already occurred in 4 out of the 6 relationships of nonsecurely attached subjects, versus 5 divorces or separations among the 15 relationships of secure subjects. However, this difference was not significant either, and may be explained by the fact that nonsecure subjects began their relationships at a younger age and after a shorter courtship period.

Although the study of Hill et al. (1994) suffers from many limitations (i.e., small sample sizes, minimal findings of significance, failure to address cause and effect because of biases in recall), their preliminary results lend some support to a continuity of attachment style, and offer good reason to further study the effects of attachment patterns on relationships throughout the life span. These relationships go beyond those with the

primary caregiver. Ainsworth (1989) described how one forms affectional bonds across the life cycle with people other than the mother, such as with fathers, sexual pairs, friendships, and kinship relations. It is evident that the role of attachment is an important one, not only in the early years but also throughout life. The ability to form healthy attachments influences one's ability to relate to others and the world, either with a sense of security or of impinging danger. As described earlier, foster children are particularly at risk in this regard. Research related to the attachments of foster children is therefore reviewed, with an initial look at the methodology employed.

Methodological Considerations

Unfortunately, there are few studies that specifically examine the attachment relationships of foster children. In addition, the available research related to foster children and attachment suffers from methodological limitations, as a result of both the nature of the topics under consideration and a deficiency in the field. The nature of the research in this area makes true experimental design nearly impossible. All of the research reviewed was field research, studying conditions as they already existed in the world. Therefore, confounding variables were frequently present. Other methodological limitations, such as sample sizes and statistical procedures used, are also similar across the research. The following section discusses the limitations found in the research, which may or may not be amenable to change, but should, nevertheless, be kept in mind when considering results.

Most of the research is exploratory in nature, and several reports consisted of case studies only (e.g., Penzerro & Lein, 1995). Almost all of the research consisted of

nonlongitudinal designs and was frequently conducted at an early age (e.g., Egeland & Sroufe, 1981; Marcus, 1991), making long-term effects difficult to judge. Descriptive rather than inferential statistics were usually employed, offering minimal power and no information regarding cause and effect (e.g., Johnson, Yoken, & Voss, 1995).

Comparison groups were not always used (e.g., Poulin, 1985), and those studies that did employ them may have suffered from a self-selection bias (e.g., Hodges & Tizard, 1989a). When recruiting comparison groups, families could chose whether or not they wanted to participate in the study. Parents who did not have good relationships with their children, or whose children had behavior problems, might be more inclined to decline participation. Thus, differences between subjects and their comparisons may be exaggerated in some studies.

Sample sizes were generally small and nonrandom (e.g., Poulin, 1992; Rodning et al., 1992). With a limited number of subjects, it is often difficult to find statistically significant differences, and one runs the risk of a Type II error, accepting the null hypothesis when it is false. In addition, spurious findings may present as significant though they are not representative of the larger population. In the studies reviewed here, most of the researchers reported findings of significance. Taking the sample sizes into account, one wonders if such findings would still be significant with a larger number of subjects.

Most subjects were from select private or state foster care agencies and therefore do not necessarily represent the foster care population as a whole. Although some samples are similar to the general population being studied (e.g., Poulin, 1985), others gave no indication to this effect. In addition, some studies were conducted outside of the

United States (e.g., Tizard & Rees, 1975). Though these subjects may be representative of their region, they are different from American foster children. For example, a study done in Canada (Palmer, 1996) consisted of mostly White children, whereas the U.S. foster care system is primarily made up of ethnic minorities. With such limited external validity, one must be careful about generalization.

Ainsworth's Strange Situation procedure (Ainsworth et al., 1978) has become the primary measure used in attachment research. Unfortunately, it was designed for use with infants, and reliability and validity are limited to children up to 20 months old. In the normative population of 1-year-old infants, approximately 66% are classified in Group B (secure), 22% in Group A (anxious-avoidant), and 12% in Group C (anxious-resistant/ambivalent; Ainsworth et al., 1978). Given that the Strange Situation procedure is the most standardized measure for assessing attachment, it is unfortunate that no studies of foster children employ this method. Although not using this procedure is understandable, given the time and effort involved and the fact that it may not be the most appropriate due to its age norms, no other standardized procedure is used in its stead.

In the research reviewed, most assessments were done by interviews, rating scales, and other nonstandardized measures (e.g., Festinger, 1996; Poulin, 1985). Data were often subjective, based on the researcher's interpretation of interview responses and case record information. Interviews were often done by research assistants, but it is not clear that these persons were blind as to whether they were interviewing research subjects or comparisons. In the case of Tizard's research, one of the researchers did the

interviewing herself (e.g., Tizard & Hodges, 1978). Results may therefore be influenced by the researchers' bias.

Without the use of standardized instruments or comparison groups, results are difficult to interpret because one cannot know how these children would compare to others in normal or equally disadvantaged populations. Comparison across studies is also made difficult by the inconsistent definitions of attachment used throughout the research. Whereas those studies that employ the Ainsworth Strange Situation define attachment in terms of being "secure" or "insecure," other studies are more vague. For example, Poulin (1985) defined attachment as the child's level of identification with the caregiver, and feeling "rooted" in or comfortable with the family. Varying definitions not only make comparison between studies difficult, but questions are raised as to whether or not the same construct is being measured in each study.

In conclusion, an awareness of confounding factors that may limit the results of the research is necessary for a clearer understanding of findings. Comparability and generalizability of research depends upon the similarity of definitions, measures employed, samples, and data analyses. The studies reviewed by this author tended to be limited by inconsistent definitions of attachment, nonstandardized measures, small samples, lack of control groups, and weak statistics. Similar limitations have been noted in reviews of related research (e.g., Maluccio & Fein, 1985; Pilowsky, 1995). These methodological issues must be kept in mind when considering the empirical research related to foster children and attachment.

Foster Care Variables Related to Attachment

By the simple fact that they are in foster care, it can be assumed that foster children have had many experiences likely to impact their ability to form positive attachments. Being removed from one's home is traumatic enough, but the reason for removal also has significant impact. As mentioned in the introduction, foster children are often removed due to abuse or neglect. Along with this, some are likely to have been exposed to parental drug abuse. In their discussion of the factors contributing to the placement of foster children, Gonick and Gold (1992) cited information that the primary reason for increase in maltreatment reports is the concomitant increase in the substance abuse of caretakers. Along with these pre-placement variables, once in care many foster children experience the retraumatization of frequent separations, caused by unstable placements. The following section reviews research on the influences of these variables on the development of attachment.

Early Maltreatment

In their study of 31 extremely neglected and/or abused children, Egeland and Sroufe (1981) considered the association of maltreatment and attachment style using Ainsworth's Strange Situation procedure. Assessments were made at 12 and 18 months and compared with those of 33 infants from the same poverty level with a history of excellent care. At 12 months, subjects were less secure than their comparisons, $\chi^2(2, \underline{N} = 64) = 9.61$, $\underline{p} = .008$. However, this difference was no longer significant when the infants were reassessed at 18 months, $\chi^2(2, \underline{N} = 64) = 2.48$, $\underline{p} = .29$. Attachments of the excellent care group were relatively stable from one assessment to the next, with 25

(76%) classified as securely attached, 2 (6%) as resistant and 6 (18%) as avoidant at 18 months.

Infant attachment in the inadequate care group, however, had a significantly greater proportion of change, χ^2 (2, $\underline{n}$ = 64) = 5.59, $\underline{p} < .05$. At 12 months, 50% of infants who were severely neglected ($\underline{n}$ = 24) were classified as resistant (36% secure; 14% avoidant), and most of the infants suffering from abuse ($\underline{n}$ = 7), alone or in addition to neglect, were classified as avoidant (57%). When reassessed at 18 months, 4 neglected infants were unavailable for follow-up. The rest had changed to primarily securely attached (47%) or avoidant (37%), and the abused infants were mostly now secure (75%) or still avoidant (25%). Secure attachments in the inadequate care group, at 12 and 18 months, were not related to the duration or type of social service intervention received. In addition, no differences between securely and insecurely attached maltreated infants were found with regards to either the results from a battery of personality tests given to the mother or the degree of maltreatment.

Egeland and Sroufe (1981) admitted that generalizations must be very tentative due to the small numbers of subjects and somewhat anecdotal data based on case histories, a Child Care Rating Scale (Egeland & Brunnquell, 1979), and Ainsworth's Cooperation-Interference and Sensitivity Scales (Ainsworth et al., 1978). However, their results support attachment theory in that early maltreatment was associated with anxious attachment at 12 months, and an avoidant pattern commonly results from chronic unavailability and/or rejection. Case histories of the anxious/resistant infants in the inadequate care group revealed mothers who were often inconsistent in their care due to heavy drug use or, in the case of one mother, serious mental illness. Secure attachment

of maltreated infants seemed to be associated with the presence of a supportive family member, a less chaotic life-style and, in some cases, a more robust infant.

As mentioned previously in this paper, the authors conducted a follow-up study several years later (Erickson, Sroufe, & Egeland, 1985), in which they observed the behavior of 96 of the above children at 4.5 to 5 years old in preschool and in problem-solving tasks with their mothers. The intent of the study was to determine if anxiously attached children would be more likely to have behavior problem in preschool and whether a particular pattern of attachment was related to specific problem behaviors. Based on their findings, the authors concluded that the anxiously attached children indeed had an increased likelihood of problem behaviors, and that the child's behavior at age 4.5 to 5 years old was strongly predicted by their quality of attachment at 12 to 18 months old. Such findings not only highlight the validity of earlier results, but also indicate the continued negative influence of poor attachment on a child's development over time.

The results of Egeland and Sroufe (1981) are also supported by a later study conducted by Lamb et al. (1985), in which 32 neglected and/or abused children from 8.7 to 31.8 months old ($\underline{M}$ = 18.4 months) were assessed with their biological or foster mothers. Of the 12 children in foster care, the average amount of time in care was 5.5 months. These children were from poor and lower middle-class backgrounds and had been referred to protective service authorities in Denver. Twenty-three of them were maltreated by their mother, whereas in 9 cases the perpetrator was some other adult (e.g., father). The maltreated children were compared with a group of children from similar backgrounds (matched for age, sex, ethnicity, socioeconomic status, and parental education and occupation) who lived with their parents and had no known history of

abuse. For the assessment, two individuals unfamiliar with the children's status rated videotapes of a nonstandardized laboratory procedure, similar to the Strange Situation, and coded responses according to Ainsworth's system for classifying attachment security.

In all reported results Lamb et al. (1985) applied Yates' correction for continuity, a controversial statistic that may inappropriately increase the significance of the findings (Howell, 1992, pp.135-136). Twenty-one of the 32 maltreated children behaved insecurely, compared with 6 of the 32 comparison children, corrected χ^2 (1) = 12.22, $p <$ .001. The primary behavior pattern of maltreated children was avoidant (53%). For those children maltreated by their mothers, 83% of which were insecurely attached (19 out of 23 children), differences remained significant whether they were living at home or in foster care and whether they were assessed with their biological mothers or with their foster mothers. In contrast, 7 of the 9 children maltreated by someone other than their mother were securely attached. One of the 2 children who behaved insecurely had experienced severe emotional and physical neglect, presumably by her mother, in addition to being physically abused by her father. Results suggest that if the mother is supportive of attachment behavior, her child can develop a secure attachment to her despite maltreatment from others.

Interestingly, the 2 children who behaved securely with their maltreating mothers were the only children with mothers who had been described by caseworkers as capable of some intermittent warmth and responsiveness. In addition, 2 of the children abused by nonmothers were securely attached despite "intermittent emotional neglect" by their mothers. In these cases, inconsistent care did not seem to hinder secure attachment.

It is also noteworthy that 4 of the 6 children assessed with their foster mothers displayed insecure behavior. It is possible that this is due to sampling error associated with the small sample size. It may also be because these children were more severely maltreated, having been removed from their homes, and had only been with their foster mothers for a few months. In any case, this finding highlights the question of whether or not children who are maltreated by their first caretaker can go on to develop healthy attachments to future caregivers. No relationship was found between attachment pattern and the incidence, frequency, recency, or length of foster-care placement. Also, there were no significant differences related to the age of the child or the type of maltreatment endured.

Maternal Substance Abuse

Rodning et al. (1992) examined the quality of attachment in children who were prenatally exposed to phencyclidine (PCP). Many of these children were also exposed to cocaine (74%), nicotine (80%) and alcohol (80%). These drug-exposed children were selected from a county hospital in inner-city Los Angeles, based on PCP-positive urine toxicology screenings performed on their mothers roughly 72 hours before birth. Because they were drug-positive at such a critical time, it is assumed that these women were chronic abusers. Two confounding variables were controlled for by excluding mothers who were teenagers and heroin users, possibly infected with HIV, from the sample. In the final analysis, a total of 38 drug-exposed children were compared with a group of 25 children from nonteenage mothers of similar ethnicity and income recruited from the same hospital.

Though the comparison mothers did not use "hard" drugs (i.e., PCP, cocaine, or heroin), some used alcohol (17%), nicotine (21%), and marijuana (percent not reported) similarly to the PCP-abusing group. Overall, the PCP-abusing mothers were slightly older, had significantly less education ($p < .05$), had more children, and often obtained prenatal care later in pregnancy (after the third trimester) or not at all. In addition, the average birth weight of drug-exposed infants was somewhat lower than that of the comparison group. According to the authors, no significant differences in attachment styles were found in either group when comparisons were made based on maternal age, maternal education, and child's birth weight. Differences based on the number of children in the home and prenatal care were not considered.

For the purpose of comparison, the drug-exposed children were divided into three groups, based on their primary caregivers: children being cared for by their biological mothers ($n= 20$), children being raised by extended family members ($n = 11$), and children in foster care ($n = 7$). Attachment was assessed at 15 months, using the Ainsworth Strange Situation procedure (Ainsworth et al., 1978), with a coder trained to a reliability of >.87. Results were reported as a frequency distribution of attachment classifications (avoidant, secure, or ambivalent). Most drug-exposed children (68%) were disorganized in their attachment. These disorganized children were forced-classified as either avoidant or ambivalent. Distribution of attachment classifications within the comparison group was consistent with base rates in the normal population.

Rodning et al. (1992) described the distribution among drug-exposed children as "very deviant," though no statistically significant differences are reported. The attachments of the total sample of drug-exposed children were primarily insecure (39%

avoidant and 42% ambivalent/resistant). No notable differences were in evidence between caregiving groups, except that children living with their biological mothers were more likely to be ambivalent/resistant (50%), whereas those living with extended and foster families were more likely to be avoidant (55% and 43% for extended and foster families, respectively).

Although 13 of the 38 drug-exposed children had experienced one to three changes in caregivers by the time of assessment at 15 months of age, the authors found "no differences in the distribution of attachment classification" (p. 358) based on whether or not a child moved. Of the 8 drug-exposed children residing with biological mothers who remained abstinent, four were securely attached. The higher rate of securely attached children with abstinent mothers compared to those with mothers who continued to abuse drugs suggests that the mother's ongoing drug use plays a significant role in her relationship with her children. Though the sample sizes are rather small and statistics are not provided, results of the Rodning et al. (1992) study suggest the detrimental effects of maternal drug use on infant attachment. Insecure attachment was found in a majority of the drug-exposed children, despite the type of caregiving environment or number of caregivers.

Multiple Placements

In his discussion of the research regarding number of placements in foster care, Marcus (1991) noted the inconsistency in the literature. Most found that children who experienced multiple placements were more likely to show symptoms of psychological disturbance. However, others found no correlation between a child's problems and number of placements. Marcus explained these mixed results as due to differences in

study design, samples, and measurement techniques. He concluded that, because "psychological problems" are somewhat differently defined across studies, no clear picture has emerged as to the specific effects of placement instability.

In his own study, Marcus (1991) found a significant positive correlation between the number of placements and externalizing behavior problems measured by the Achenbach CBCL ($N = 52$, $r = .41$, $p < .01$). Neither attachment to foster parents nor attachment to biological parents was significantly affected by the number of placements. However, the more months children had in their current placement, the stronger, more positive attachment they had to the foster mother.

Fein, Maluccio, Hamilton, and Ward (1983) conducted a longitudinal investigation of 187 children under the age of 14 who were discharged by the Connecticut State Department of Children and Youth Services to a permanent home between 1979 and 1981, after a stay of at least 30 days in temporary foster care. Most children were returned to their biological homes (53%). Others were placed in adoptive homes, homes with relatives, permanent foster homes, or foster parent adoptive homes. Data were gathered primarily through extensive interviews with parents or caretakers in the permanent home at three points: up to 4 months after placement, 6 to 10 months after placement, and 12 to 16 months after placement. New interview instruments were developed specifically for this study and were not standardized. Additional data about the children's backgrounds and placement histories as well as caseworkers' planning were obtained through a review of case records and interviews with agency caseworkers.

Multiple regression analysis was used to examine the degree of relationship of several independent variables (e.g., child's age or type of home) to each outcome

measure (i.e., Family Adjustment, Emotional and Developmental Functioning, Child Behavior, or School Functioning). Though mean scores indicated that most children were doing "adequately" or "moderately well" in all areas, children placed in permanent foster homes scored lowest, whereas those placed in permanent homes with relatives or in foster parent adoptive homes had the highest adjustment scores.

When Family Adjustment and Emotional and Developmental Functioning outcomes were analyzed, the child's age and placement history variables had significant influence ($p = .05$). Older children and those with more previous placements had lower outcome scores. Those who had been previously placed in their biological homes or placed with relatives immediately prior to permanent placement were doing better than those who had been in nonrelative foster homes or residential care. Children with more foster care placements scored significantly poorer on the Emotional and Developmental Functioning interview scale than those with fewer placements.

Of the 138 children whose whereabouts were known by the end of the study, 30 (22%) had left their "permanent" homes 12 to 16 months after placement. The highest percentages of disruption occurred among children returned to their biological homes (32%, $n = 62$) and those placed in permanent foster homes (50%, $n = 14$). Overall, the children placed in permanent foster homes were found to be among the most vulnerable and needy of the children. They were mostly older boys with extensive placement histories ($M = 3.7$ placements) and 43% had been in residential care immediately prior to placement. Half of the permanent foster placements were disrupted, mostly due to the social and emotional problems of the children, according to their caseworkers. However, the children who remained were doing satisfactorily, as measured by their outcome

scores. Those in foster parent adoptive homes were doing extremely well, excelling in outcome measures and experiencing no placement disruptions by the end of the study.

Other studies support a positive relationship between a child's number of moves and their number of problems. Cook (1995) found that having multiple placements during foster care was the characteristic most associated with negative outcomes, such as unemployment, school dropout, relationship troubles, and teen parenthood, in youths 2 to 5 years after emancipation. Research has also found that children with behavior problems are the most likely to experience placement disruption, particularly as they get older (Palmer, 1996). Thus, a vicious cycle is formed in which children who manifest behavior problems are removed from their placements, and dealing with this loss only serves to escalate the acting out in the new placements, increasing the likelihood of repeated placement failure. In the study of Fein et al. (1983), of the 16 placement disruptions for which a reason was given by the caretaker, 11 were due mainly to the child's behavior problems.

In a qualitative, ethnographic study of 20 conduct-disordered youths (ages 18 to 20 years) living in a residential treatment center, Penzerro and Lein (1995) noted inconsistent reports regarding the subjects' placement stability. The average number of moves was 5 according to the caseworkers, and 12 as reported by the boys. When the data were reviewed, in most cases the records were incomplete. One of the subjects reported having been in 22 placements, including numerous foster homes, several shelters, two treatment centers and one return to his mother. A clear pattern of alienation and angry, antisocial acting-out behavior in reaction to transition was noted through interviews and case studies. Not only does this study support the association of

externalizing behavior with frequent moves, it also suggests that the extent of foster care disruption may be even greater than official records generally indicate.

As the research shows, the effects on a child of frequently changing environments and caregivers can be seriously detrimental. Palmer (1996) described how foster children frequently experience their changes of home as unsettling and confusing, worrying about their future and longing for the security of someone who cares about them. It is obvious that a stable living environment should be the ultimate goal of all foster care. In fact, many of the earlier studies which found favorable outcomes related to foster care involved subjects with considerably stable placement histories (e.g., Fanshel & Shinn, 1978). Maluccio and Fein (1985) concluded that "the initially negative effects of separation and placement in foster care can be counteracted or reduced through the influence of stable foster home placements" (p. 131).

Attachments of Foster Children

In light of their multiple risk factors, it is expected that foster children will manifest poor attachment in their relationships with primary caregivers. In the following section, the research of Marcus (1991) is reviewed to gain a general understanding as to the attachment styles of foster children and the influence these styles have on other areas of functioning. Marcus's (1991) study was the only one found to offer such a direct and comprehensive look at attachment in foster children. A review of his work is followed by a consideration of studies that specifically address the attachments of foster children to their biological parents.

Foster Child Attachment in General

In an extensive look at the attachment relationships of 52 children in foster care, Marcus (1991) considered what types of attachments these children had and the association of attachment with other variables and areas of functioning. His goal was to determine the association between children's attachments and affectional relationships and their adjustment in foster care. The children ranged in age from 4.2 to 13.2 years (M = 7.11 years). Background information about the children was collected from children's files by trained raters, and then verified by caseworkers.

Ratings of attachment and affectional variables were obtained from foster care workers, foster parents, and foster children. In addition, available foster children (n = 38) were interviewed about their relationships and experiences for 20 minutes by trained research assistants, using questions taken from Rohner's (1980) manual for the study of acceptance and rejection in children. Children's responses to these questions were then coded by two more assistants (Kappa index of agreement = .75 to .90). Foster care workers were asked to rate both the intensity of children's emotional bonds to foster and biological parents (i.e., strong or weak) and the emotional quality of the relationships (i.e., positive, such as happiness or joy, or negative, such as anger, fear or sadness). Rating scales were based on those used by Fanshel and Shinn (1978), and sufficient validity was assumed based on the correlations found in their study.

Foster parents completed the Achenbach CBCL (Achenbach & Edelbrock, 1983) to measure school performance and the presence of internalizing or externalizing behavior problems, the Parent/Child Reunion Inventory (Marcus, 1988) to measure attachment style, and the Interpersonal Reactivity Index (IRI; Davis, 1983) to measure

cognitive and emotional forms of empathy. Marcus cited much research supporting the validity and reliability of these scales. The Parent/Child Reunion Inventory was created specifically for this study. It was piloted by Marcus in a preliminary study with Cronbach alphas of .76 for secure attachment and .77 for insecure attachment. In addition, Marcus (1990) also conducted studies with three other samples of children (Ns = 42, 34, & 73) in which scores for secure and insecure attachment correlated with criterion measures and showed adequate reliability and both concurrent and predictive validity. Unfortunately, the author provided no indication as to the number or percentage of children who scored as securely or insecurely attached on this measure.

Most data were analyzed using Pearson product-moment correlations. Because of the large number of correlations performed, which increases the likelihood of chance findings, findings at the .05 level of significance are reported as only marginally significant and a more conservative .01 alpha level was used. At this level the following correlations were significant: achievement problems were associated with attachment to the foster mother (r = .59 for insecure attachment, r = -.53 for secure attachment), and with the physical affection experienced by the foster father per the child interview (r = -.53). Of marginal significance were associations between internalizing behavior and the quality of attachment to both the foster mother (r = -.39) and the biological mother (r = -.31), and insecure attachment to both the foster mother (r = .40) and the foster father (r = .56). Externalizing behavior was marginally associated with insecure attachments to both foster parents (r = .48 for foster mothers, r = .60 for foster fathers) and with secure attachment to the foster mother (r = -.53).

Using a one-way, repeated measures analysis of variance (ANOVA) and a Newman Keuls post hoc comparison of cell means, only workers' ratings of attachment revealed significant difference between the children's attachments to various parents. Children were least attached to their biological fathers, whereas attachments to both biological and foster mothers were stronger. However, the quality of attachment was more positive with the foster parents and more negative with the biological parents, Fs (3, 48) = 5.91 and 10.73, for strength and quality of attachment, respectively, ps < .001. Further correlations revealed that the more months the child was in care ($r = -.37$, $p < .01$) and in their current placement ($r = -.44$, $p < .001$), the greater their strength of attachment to the foster mother (lower scores = stronger attachment). Marcus (1991) concluded that, though there seems to be a modest continuity of attachment to biological mothers that does not disappear, it might become overshadowed by newer relationships.

There was no relationship between children's age and their attachment to the foster parents. However, as the children got older the quality of their attachment to the biological mothers declined ($r = -.41$, $p < .01$) and it improved toward the biological fathers ($r = .51$, $p < .001$). Interestingly, most had little contact with their fathers, suggesting that the child's image of the absent or distant parent may become more idealized over time. The more often children were visited by their biological mothers the stronger their attachment to her ($r = -.41$, $p < .01$), whether the quality of attachment was positive or negative. It seems, therefore, that older attachments need to be nurtured by current contact.

Of the 38 children who were interviewed regarding their coping styles, the number of close friends decreased with increased time in care ($r = -.60$, $p < .001$) and

increased number of placements ($r = -.45$, $p < .01$). Quantity and quality of relationships with friends and grownups, including parents, were not significantly related to behavior problems. Correlations between the IRI total scores and the measures of child attachment, affection, and adjustment revealed a significant relationship between the foster father's level of empathy and the quality of attachment to both foster parents, rs = .48 and .54 for foster mother and fathers, respectively, $ps < .01$. Neither foster mother nor foster father empathy was associated with children's behavior problems.

Attachment to the Biological Family

A number of children (43 to 56% of those in long-term foster care) have ongoing involvement with their biological parents while remaining in care for an extended period of time (Poulin, 1985). Poulin (1985) summarized the early research on parental visiting as contradictory: Some studies support parental involvement, in order to help the child adjust and to prevent feelings of abandonment, and others do not, citing the stress produced by being torn between two sets of parents. In a study regarding the influence of biological family involvement on foster children's adjustment, Poulin (1985) found that the strength of a child's attachment to his or her biological family predicts the amount of loyalty conflict they experience while in care.

Poulin (1985) examined the case records of 80 foster children who had been in placement from 2 to 17 years (M = 7.4 years), with continued foster care as the court-determined placement goal. Demographic characteristics of the children, such as age (M = 10.8 years), number of foster homes (M = 3.4 placements), ethnicity (76% African-American and 24% Caucasian), and sex (fairly equal number of males and females), were considered "similar to those of long term foster children in general" (p. 20). Case

records, completed by childcare workers, were coded by a research assistant who completed structured case summary forms for each child. Ratings were given for the following six variables: reaction to separation, time in care, foster family attachment, frequency of kin visiting, biological family attachment, and loyalty conflict. Biological and foster family attachments and loyalty conflict were assessed using scales developed by Fanshel (1982).

Most of the children (74%) were considered to be "strongly identified" or "deeply integrated" within their foster families. Almost 49% of the children visited with their biological families, usually their mothers, fairly frequently (from once every one to three months to as often as twice a month or more). Approximately 40% were assessed as having weak psychological attachments to their biological families and approximately 30% were said to have strong feelings of attachment. The other 30% were considered ambivalent, showing "some signs of identification, but pulls away from relationship." About 51% of the children were assessed as being "at peace" with their foster care status, and about 26% were rated as having "conflicted feelings of loyalty."

Children were most likely to experience loyalty conflict if they were strongly attached to their biological family ($r = .48$, $p < .01$) and if they had difficulty when initially separated from their biological parents ($r = 34$, $p < .01$). Additionally, children's attachment to their biological family was significantly associated with visitation with a member of the biological family ($r = .44$, $p < .01$) and with having less attachment towards the foster family ($r = -.48$, $p < .01$). Biological family attachment ($\beta = .42$, $p < .01$) and reaction to separation ($\beta = .23$, $p < .05$) continued to have the strongest effects on loyalty conflict when the influences of the other predictor variables were accounted

for using a path model of analyses. Frequency of visiting had an indirect effect on loyalty conflict through its effect on the child's biological family attachment ($\beta = .35$, $p < .01$). Length of time in foster care was not associated with attachment or loyalty conflict.

Poulin (1985) concluded that children who are visited by their biological families remain more attached to these families and therefore suffer from conflicting feelings of loyalty towards their foster and biological parents. However, in a later study Poulin (1992) supported such visitation, maintaining the "importance of the family of origin for foster children" (p. 77). In this study, he examined the relationship between 92 long-term foster children's attachment to their biological families and their being visited by extended family members. The children for this study were drawn from the same pool of 100 children used in the previous study, with similar demographic statistics except that the average number of foster home placements decreased to 2.5. The most common reason for placement was neglect. Other reasons included financial or housing problems, mental illness, child abuse, and substance abuse. Collection of data was also done in the same manner as above, using case records coded by a research assistant, except that the variable of loyalty conflict was excluded.

With the addition of 12 children to the subject pool, rates of attachment to biological families changed only slightly: 42% had weak or no attachment, 29% had strong feelings of attachment, and 28% were rated as ambivalent. Of those children who were presumed to be visited by their extended family fairly regularly (42%) based on recency of visits, 20 had been visited within the past year and 19 within the past month. Pearson product-moment correlation showed children's attachment to their biological family to be significantly related to how often they were visited by extended family

members ($r = .41$, $p < .001$), and there were significant differences between the mean family attachment scores for the four levels of visitation frequency, $F(3,88) = 6.13$, $p < .001$.

Step-wise multiple regression was used to statistically control the influences of parental visiting, age at placement, time in care, foster family attachment, and number of foster home placements, in order to test the independent effect of kin visiting on biological family attachment. Since time in care and number of placements did not account for any significant variation once the other variables were controlled, they were excluded from the final regression analysis. After this analysis, the net correlation between kin visiting and biological family attachment was .25 ($p < .01$), revealing a significant independent effect. Foster family attachment ($\beta = -.34$, $p < .001$), parental visiting ($\beta = .29$, $p < .001$), and age at placement ($\beta = .26$, $p < .01$) were also significantly correlated with the child's attachment to their biological family.

Thus, extended family members, along with the biological parents, are important in maintaining a child's connection to their biological family. However, whether or not this attachment is in the best interest of the child is still not clear. Poulin (1992) emphasized the need for social workers to recognize the importance of kin visitation in "maintaining [children's] sense of connection to their families of origin" (p. 77). Yet children may feel strongly "connected" to their biological parents, and also have this connection be one fraught with negative qualities such as anger or fear.

The overall trend in the literature seems to be in agreement with the importance that Poulin, in his latter paper (1992), placed on a child's maintaining ties to his or her biological family. For example, after reviewing the literature on parental visitation of

foster children, Hess (1987) concluded that the most consistent finding is that more frequently visited children are most likely to be discharged into their parents' care. In addition, "findings suggest that both the psychological well-being and developmental progress of children are enhanced by frequent parent-child visiting" (Hess, 1987, p. 43). However, both of these findings must be viewed with caution due to significant methodological limitations. And, though parental reunification is the desired outcome based on current law (e.g., P.L. 96-272), this may not always be the best choice. The link between visitation and reunification might also be due to an erroneous assumption on the part of the caseworkers that frequent visitation is synonymous with positive attachment.

Palmer (1996) assessed variables associated with placement stability in 184 Canadian foster children with average intelligence, ranging in age from 4 to 17 years (46% adolescents). These children represented a population of all foster children in Ontario who had entered care within a certain time period. However, they were unusual compared to most U.S. foster children in that 77 % were White, and slightly over half of them had been placed at their parents' request and rated by their workers as difficult to handle. In addition, most of these children had lived in several places by the time of the study: 42% with two to three different families, and 35% with four to eight families. Data were collected using questionnaires completed by the children's placement workers at the outset of the study, and children's moves were monitored via a checklist completed over the study's 18-month course.

Though 56% of the children had contact with their biological mothers once or twice a month, the amount of child-parent contact was not significantly correlated with placement stability. Rather, one of the largest unique contributions to predicting the

number of placements in a regression analysis was the difficulty of the child's behavior ($\beta = .42$, $p = .0001$). This is not surprising, given that frequent moves are often associated with the behavior problems noted for over half of the children in this study.

Other variables associated with number of placements in Palmer's (1996) study included: child being male ($r = .32$, $p = .001$), preparation of child for placement by the parents ($r = .21$, $p = .032$), and worker's training (a half-day seminar) on the topic of separation ($r = .20$, $p = .036$). Other demographic characteristics, such as child's age and reason for placement, and worker's level of education were not significantly associated with number of placements. Along with their behavior, children's preparation for placement by their parents also made a strong independent contribution to number of placements experienced ($\beta = -.24$, $p = .03$). Children had fewer moves when their parents prepared them for placement. Unfortunately, the author does not define what kind of "preparation" occurred. Overall, the parents' ongoing visitation may not have had a significant impact on maintaining placement, but their early involvement in the initial placing of their child seemed to play an important role in establishing stability.

Despite such empirical support for including biological parents in the process of placement, it seems such an inclusive model is rarely integrated into the actual practice of child welfare agencies. In the above study, Palmer (1996) found that most (52%) of the children were placed "in their parents' absence." In an exploratory effort to determine whether protective service workers recognized and emphasized the importance of maintaining attachment relationships, Grigsby (1994) reviewed the closed case records of 46 foster children aged 0 to 17 years old. All children had been in foster care for at least 10 days, and were subsequently returned to their biological parents. Utilizing the

"constant comparative method" of review, data were organized into categories relating to the parent-child relationship and visitation and then compared.

Grigsby's (1994) results showed that parent-child attachment was discussed in 34 (74%) of the cases. However, only 13 (28%) of the case records documented any visitation, presumably with the mother in most cases. In two cases, children were returned to their parents who visited regularly, even though mental health professionals recommended against it due to a lack of parent-child attachment. Grigsby concluded that, though many of the caseworkers mentioned attachment relationships, it is likely they were not "cognizant of the principles of social-attachment theory," and they did not seem to support the maintenance of significant attachment relationships (p. 275).

Unique Effects of Poor Attachment

In an effort to determine the specific, independent effects of poor attachment in early childhood no work was found to be more relevant than that of Barbara Tizard and her colleagues (Hodges & Tizard 1989a, 1989b; Tizard & Hodges, 1978; Tizard & Rees, 1975). In this 16-year-long longitudinal study out of London, the researchers followed the effects of early institutional rearing on the cognitive ability, behavior, and relationships of 65 children. The children studied were unique in that they had all been admitted to a residential nursery before the age of 4 months, and the institutions were well supplied with books, toys, and staff, who often took the children on excursions.

These characteristics set this study apart from most studies of institutional children in which the effects of multiple caretaking were impossible to isolate due to the overwhelming presence of confounding variables, such as poor quality institutional care,

adverse early experiences, a history of foster home breakdowns, or periodic returns to a disturbed family. In addition, since the children being studied were placed as infants, the trauma of being removed from the birth mother is minimized.

The children were all full-term, healthy babies who had been placed with the institution in hopes that they would be adopted or eventually returned to their mothers' care. All but two were illegitimate. Immediate adoption was not possible due primarily to either a family history of epilepsy or psychiatric illness, or because one or both parents were non-White. Between the ages of two and four, 24 children had been adopted and 15 had been restored to their biological mothers. All of the adoptive parents were White. The fathers were either professional or business class, and the mothers tended to be older ($\underline{M}$ = 36.7 years) than both mothers of restored children ($\underline{M}$ = 27.0 years) and mothers of institutionalized children ($\underline{M}$ = 27.7 years). Of the 26 children who were still in the institution, they remained there primarily because either their racial origin made adoption difficult, or their birth mothers were not willing to relinquish them.

In addition to the institutional and ex-institutional children, comparisons were made with a group of healthy, full-term, White babies raised with their biological, working-class parents. There were an equal number of boys and girls in this group. However, there were approximately twice as many boys as girls in the other groups, due to the fact that many more boys than girls are admitted to institutions as infants. Whereas those children in homes typically had only one or two siblings, all the institutional children were living in mixed age groups of five or more children. Two or more staff were on duty with the group each day. However, these staff members were frequently changing. Though the institutions were well supplied with staff members, they

discouraged the staff from developing close relationships with the children. By the age of 2, all institutionalized children had experienced an average of 24 different nurses who had worked with them for at least a week. At 4.5 years old, the average number of caregivers for those remaining in the institution had increased to 50.

It is beyond the scope of this paper to review the cognitive development of these children in depth. Suffice it to say that, using Wechsler's scales of intelligence, the mean Full-scale IQ of all groups was at least 100 when tested at 4.5 years and remained fairly consistent throughout. By 16 years of age, the group adopted before 4.5 years old continued to have significantly higher Full-scale IQ scores than the later adopted group ($p = .02$), than the group restored before age 4.5 ($p = .005$), and than the institutional group ($p = .002$). No other significant differences in IQ were found, and none of the group means fell below the average range. At no time were there any significant differences between the IQs of the White and non-White children. At 8 years old, higher IQ's were associated with children's attachments and less behavioral problems. However, by 16 years of age such correlations were no longer significant, except that the higher IQ scores of restored children were still significantly associated with lower problem scores, as determined by their parents ($r = .77$, $p < .03$).

At 4.5 years old, the children's behavior and level of attachment were assessed via tape-recorded interviews conducted with the children and their mother or most familiar nurse (Tizard & Rees, 1975). Behavior problems were assessed using related questions from a questionnaire designed by Richman and Graham (1971). Additional questions were asked regarding attention seeking, disobedience, and anxiety, and answers were rated on a 3-point scale. Cooperativeness, restlessness, concentration, and

talkativeness during IQ testing were rated on 4-point scales, presumably developed by the authors, which measured the frequency of related behaviors. Using the Scheffé multiple comparisons test, the only significant difference in mean "total problem" scores was between adopted children, who had the lowest mean ($F = 3.5$, $df = 3$, $p < .05$), and institutional children.

Though institutional children did not differ from the comparison group regarding their overall number of problems, they did differ in terms of the type of problems that were most frequent. In the London working-class children, mealtime problems ($\chi^2 = 10.7$, $df = 3$, $p < .02$), over-activity ($\chi^2 = 8.3$, $df = 3$, $p < .05$), and disobedience ($\chi^2 = 10.7$, $df = 3$, $p < .02$) were more frequent than in other groups, whereas in the institutional children, poor concentration ($\chi^2 = 8.7$, $df = 3$, $p < .05$), problems with peers ($\chi^2 = 9.5$, $df = 3$, $p < .02$), temper tantrums ($\chi^2 = 10.5$, $df = 3$, $p < .02$), and clinging ($\chi^2 = 8.2$, $df = 3$, $p < .05$) were more frequent. Bed-wetting, an often reported problem among institutional children, was rare in all groups. Of note is that 15 institutional children who had irregular or broken contact with their parents, or "substitute parents," had above average "total problem" scores more often than the children who were visited regularly or not at all ($\chi^2 = 7.8$, $df = 3$, $p < .05$). Also, the highest "problem" scores were found among four children who were all "overtly distressed by the cessation of visits" (Tizard & Rees, 1975, p. 67).

The children's affectional bonds at 4.5 years were evaluated using an attachment questionnaire developed by Tizard (Tizard & Tizard, 1971), which was filled out by the child's mother or nurse. Questions pertained to whether or not children showed a

preference for any particular adult in certain situations, and whether they tended to follow or show affection to a particular adult (versus anyone friendly or familiar). Institutional children were the only ones described as "very clinging," and were significantly more likely to follow a caregiver around than the working-class comparison children. The mother or nurse was also asked directly whether or not she felt the child was deeply attached to her. Eighteen of the 26 institutional children were said by their nurse "not to care deeply about anyone." They also displayed signs of "anxious" attachment in that they would cry when an attachment figure left the room and would run to be picked up when they came in. All but four of the adopted children were described as "deeply attached" to their adoptive mothers, who also viewed them as more affectionate than their biological children.

The children's friendliness to strangers was measured using a 7-point rating scale adapted from one developed by H. L. Rheingold for babies (Rheingold & Bayley, 1959). Many institutional children were described as attention seeking and overly friendly to strangers. "Overfriendliness" was also a cause of concern for caregivers of some restored and adopted children, but no London working-class children. The mothers of restored and adopted children were asked in what way, if any, they thought the child had changed since leaving the institution. All adoptive mothers thought the children's behavior had improved, particularly in that they were less clinging, quiet and shy at 4.5 years than they were initially. Twelve out of the 15 biological mothers of restored children also thought their children had changed, but in four cases the children were said to be "worse" in that they had become more disobedient.

At the end of the interview, the investigator noted whether the mother had demonstrated positive or negative feelings for the child, based on whether or not she engaged in specific behaviors outlined in Caldwell's Inventory of Home Stimulation (Caldwell & Kaplan, 1966). Using the Scheffé Multiple Comparisons Test, the examiners found that mothers of restored and working-class children expressed significantly more anxiety ($F = 7.0$, $df = 3$, $p < .01$) and negative feelings ($F = 8.8$, $df = 3$, $p < .001$) than both the adoptive mothers and the nurses. Correspondingly, adoptive mothers expressed significantly more positive feelings than the mothers of working class or restored children ($F = 5.2$, $df = 3$, $p < .01$).

When these same children were reassessed at 8 years old (Tizard & Hodges, 1978), 51 of the original 65 children were available for interviews (18 girls and 33 boys). Only 8 children remained in the institution, as 7 had been adopted, 4 were in foster homes, and 7 had been restored to their biological homes during the 3.5 years between assessments. The child's age at placement, whether prior to or after age 4.5, had little affect on results. The institutional children had been moved from residential nurseries to all-age homes where they lived with 6 to 19 other children, with 1 staff for every 3 to 4 children. For 3 of the institutional children, a total of 11, 39, or 58 staff, had worked with them for at least a week since they entered the institution as infants. For the other 4 children, the examiners estimated that the total number of staff who had cared for them since infancy was probably around 80.

The main comparisons among children at age 8 were made between the new totals of adopted children ($n = 25$), restored children ($n = 13$), children who had been continuously in institutions ($n = 8$), and children from the London working-class families

maintained from the earlier assessment ($\underline{n} = 29$). In addition to this working-class comparison group, a second comparison group was added which consisted of the same-sex classmate nearest in age to the study child ($\underline{n} = 45$). Children with multiple placements were not included in the comparisons, as this was considered a confounding factor. Because this screening left only 3 foster children available for the sample group, results for foster children were not presented with the rest of the data.

Again, factors determining whether and where a child was placed depended on the mother's wishes and the child's race, versus problems with the child such as behavioral or developmental difficulties. Like those who adopted the 2- to 4-year-olds, the couples who adopted the older children were of higher social class and older than the biological parents of restored children. Overall, the adoptive parents were more likely to play with their children than the other groups of parents ($\chi^2 = 13.3$, $\underline{df} = 6$, $\underline{p} < .04$) and, though not to a significant degree, also more likely to help their children with schoolwork and engage them in joint household activities.

Assessment at 8 years old was carried out in a similar manner as the previous assessment, via IQ testing, rating scales, and tape-recorded interviews with the child's mother or housemother. The children's behavior was measured via rating scales completed by the examiner during testing, which included the five mentioned above (i.e., cooperativeness, restlessness, concentration, talkativeness, and friendliness) and two for anxiety and disinhibition, developed by Rutter and Graham (1968). In addition, interview questions were asked regarding behavior problems in general, based on those in the Rutter "A" Scale Parent Questionnaire (Rutter, Tizard, & Whitmore, 1970) and whether the child had ever been referred to a doctor or clinic for behavioral problems.

The Rutter "B" Scale for teachers (Rutter, 1967), along with some supplementary questions, was given to the child's teacher to be completed for the child and the child's classmate comparison.

Though significant differences remained between the groups, by 8 years old the differences noted at 4 years were much reduced. Based on parent questionnaires, the mean "total problem" scores and scores comparing "neurotic" and "antisocial" symptoms of the various groups were not significantly different. When individual items were examined, the parents of restored children reported more "nervous" symptoms and habits, such as scratching and stuttering. In addition, a greater percentage (62%) of the restored children had been referred to their doctor or a child guidance clinic, often by their teachers, because of behavior problems ($\chi^2 = 17.8$, $\underline{df} = 4$, $\underline{p} = .01$).

At school, teachers considered the ex-institutional children to be much more of a problem than their parents did. On the Rutter "B" scale all of the institutional and ex-institutional groups, but none of the comparison groups, had mean scores over 9, the typical cut-off point for clinical significance. Although no differences were found for the neurotic scale, the institutional and ex-institutional groups scored significantly higher than the working-class group on the total problem score ($\underline{F} = 5.1$, $\underline{p} < .003$) and the antisocial scale ($\underline{F} = 4.7$, $\underline{p} < .005$). Several of the parents suggested that the restlessness and disobedience seen at school were due to their child's desire for attention.

Problem scores were unrelated when group scores at 4.5 and 8 years of age were compared. However, 8-year-old children who received reports describing them as difficult in the institution prior to leaving (e.g., "strong-willed") received significantly higher mean problem scores on both the teacher rating scale ($\underline{t} = 5.3$, $\underline{p} < .001$) and the

parent rating scale ($t = 3.7$, $p < .01$), compared to other adopted children. Problem scores were also consistent with social workers' assessment of these children as a "management problem."

During the interview, detailed questions were asked regarding the child's relationships with siblings, other children, and strange adults. The mother or housemother was also asked about the child's perceived attachments, clingingness, and affection toward any particular adults. By 8 years of age, indiscriminately affectionate and clinging behaviors were rare in all children. However, both the adopted and institutional children were described as unusually affectionate by their caregivers. Both the institutional and ex-institutional children were more often described by their teachers as wanting attention. The most common way in which these children sought attention was not "naughtiness," but what the teachers describe as "an excessive number of social approaches."

When asked directly, most of the adoptive and working class mothers (84% and 90%, respectively) said that they felt their child was closely attached to them. In contrast, caregivers for only 54% of restored children and 43 percent of institutional children felt similarly ($\chi^2 = 14.9$, $df = 6$, $p < .025$). Correspondingly, a large proportion of adoptive mothers felt closely attached to their child, whereas 8 out of 13 mothers of restored children said they did not feel deeply for the child, and did not love them as much as their other children. Of the 3 institutional children said to be closely attached to their housemothers, 1 had been with the same houseparents since infancy and the other two had been with the same houseparents since transferring to them at age 4.5. Of the four non-attached institutional children, one was over-friendly and attention seeking, one was

somewhat withdrawn, and two were said to be very hostile to both adults and children. Four adoptive mothers felt that their child was not closely attached to them and two of these adoptions later broke down.

Children described as unattached were significantly more likely to be over-friendly than the attached children ($\chi^2 = 5.2$, $\underline{df} = 1$, $\underline{p} = .025$). However, 50% of all over-friendly children were considered closely attached to their caregivers. On the Rutter parent and teacher scales, restored children had poorer sibling relationships ($\chi^2 = 21.2$, df $= 9$, $\underline{p} < .01$), and both restored children ($\underline{p} < .01$) and adopted children ($\underline{p} < .05$) had significantly worse relationships with peers when compared to the other children. Such evidence suggests that, though attachments of adopted children were generally secure (i.e., not "clinging"), both the adopted and restored children still demonstrated problems that might be associated with their early institutional rearing, such as over-friendliness, poor peer relationships, and attention-seeking behavior. This hypothesis will be examined more closely after the evidence from the children's adolescent assessment has been reviewed.

At 16 years old the children were again assessed (Hodges & Tizard 1989a, 1989b) in order to determine the longevity of previous results. Since more subjects were unavailable, due primarily to refusal or inability to make contact, and some had changed placements at this point, the following numbers of children were considered: 23 adopted, 11 restored, and 5 in institutional residences. According to the authors, the data do not suggest a systemic loss of children with more or less problems over the course of the study. The sample of adopted children included 3 boys who were still with the "permanent" foster family they had been with at age 8, and one girl adopted shortly

before her 10th birthday. Excluded were two children from adoptions that had broken down since the last assessment.

Systematic data were not presented for the institutional group, since the sample size was so small and the experiences of the children were so different, most having re-entered care after placements with foster or biological families broke down. Only 1 child had remained in residential care throughout the study until age 16. Among the restored children, 50% of the placements had broken down at one time or another.

For the adolescent assessment, the previous comparison group was replaced with another group of 16-year-olds matched for sex, one- or two-parent family, socioeconomic status, and position in the family. Adolescents were excluded who were handicapped, had a chronic illness, or had spent longer than a few weeks away from their family in hospital or residential care. In addition, the children's same-sex classmate nearest in age was again used as a comparison when assessing school information.

Caregivers' responses during the interviews were rated with a maximum total score of 47. Adopted and restored groups did not differ significantly from each other, but the ex-institutional group as a whole ($\underline{M} = 10.1$, $\underline{SD} = 7.9$) had significantly higher total problem scores than the comparison group ($\underline{M} = 7.8$, $\underline{SD} = 3.2$), $\underline{p} < .007$. The combined problem scores from the parent interviews were significantly correlated with Rutter's A scale for all ex-institutional adolescents ($\underline{r} = .65$, $\underline{p} < .001$). On this Child Scale A2 questionnaire, completed by the parents, the restored group had a higher mean problem score than the adopted group ($\underline{p} < .04$). However, neither group had a mean significantly higher than that of their matched comparison groups.

When the "neurotic" and "antisocial" behavior subscales of the A scale were considered, no differences where found on the neurotic scale. On the antisocial scale, the mean problem score of the restored group was significantly higher than the larger adopted group ($p = .03$), but did not differ from the comparison group, which was comparable in size. The scores of the 9 restored adolescents whose parents completed the scale varied considerably. Out of a possible 10, the scores ranged from 0 in three cases to 7 in two cases. Compared to the parent interviews done at age 8, which had several similar questions, responses for the total ex-institutional group at age 16 were found to be significantly correlated on the total problem scores of both the A scale ($r = .44$, $p = .003$) and the parent interview ($r = .49$, $p = .003$).

When the adolescents themselves were interviewed, using the "Questionnaire on Social Difficulty" by Lindsay and Lindsay (1982), results were similar to what they had been with the parents. Again, adopted and restored groups did not differ from each other on the total score, though the ex-institutional group as a whole reported more problems than the total comparison group ($p < .003$). On item analysis, restored adolescents differed from adopted adolescents in that they more often reported having been in trouble in the last year for fighting at school ($p = .002$) and being in trouble outside school more often ($p < .01$). Restored adolescents had more often been in some trouble with the police than their matched comparisons ($p < .03$) or adopted adolescents ($p < .002$); and almost all of the restored adolescents had been referred to child guidance or similar services, whereas none of their comparisons ($p < .001$) and significantly fewer adopted adolescents ($p < .02$) had been referred.

To examine the adolescents' behavior in school, their teachers were given the Rutter's B scale questionnaire for purposes of comparison with previous testing, though it is less appropriate for this age group, and an additional questionnaire, devised by the authors, which focused on the adolescents' relationships with teachers and peers. While the B scale problem scores at age 8 and age 16 were significantly correlated for the restored group ($r = .79$, $p < .01$), the school behavior of the adopted children was more likely to have changed, in most cases for the better. The ex-institutional group as a whole scored higher than their matched comparisons on the total score ($p < .001$) and both the "antisocial" and "neurotic" sub-scales ($p < .005$). Restored adolescents, specifically, had a significantly higher mean score than adopted adolescents on the total score ($p = .02$) and the "antisocial" scale ($p = .005$). The majority of the restored group, unlike any other group, continued to score above the cut-off point of 9 for psychiatric screening ($M = 14.3$, $SD = 10.1$; $\chi^2 = 10.40$, $df = 3$, $p = .015$). School comparison groups did not differ significantly from any of the groups.

Item analysis revealed that the things that had distinguished the ex-institutional children from their comparisons at age 8, such as restless and aggressive behaviors, were no longer significantly different. At age 16, the restored children were more likely than their matched comparisons to have stolen during the previous year ($p < .01$) and to be viewed as apathetic or unresponsive ($p < .05$). Adopted adolescents were more likely than their matched comparisons to be seen as unhappy, over-particular, and fearful (all $ps < .05$), and worried ($p < .01$). As before, correlations between teacher and parent scores were not significant.

When asked during the assessment at age 16, most of the adoptive mothers (17/21) still felt that their child was deeply attached to them and to the fathers. None of the adoptive mothers, but 3 of the 9 mothers of restored children, felt their child was less attached to them at age 16 than they had been at age 8, $p < .01$. Five restored 16-year-olds were said to be deeply attached to their mothers. Three of these were children who had been closely attached at age 8, and 2 were described as not closely attached in the previous study. Several mothers of restored children at age 16 refused to give information, and 1 adolescent had been moved to a secure unit. Significantly fewer restored than adopted adolescents were said to be attached to their fathers ($p < .01$). None of the 5 children seen in residential care at age 8 had a definite attachment to any adult at age 16.

Both adopted and restored adolescents seemed to be assimilated into their families in the sense that, when asked questions relating to values and similarities or differences between themselves and their families, these adolescents responded in ways that did not differ from other adolescents. They also were just as likely to turn to their parents for support or advice and for comfort if depressed or anxious. Although parent relationships were similar, relationships with peers and siblings were not as positive for the ex-institutional adolescents. As had been true at age 8, the restored group had especially poor relationships with their siblings. Both they and their mothers reported significantly more problems with siblings than did their comparisons ($ps = .01$ and .03, as reported by adolescents and parents, respectively). As a group, ex-institutional adolescents were more often rated as having difficulty in their peer relationships than their matched

comparisons, both according to the mother's interview and according to the 16-year-old's interview.

According to their teachers, more ex-institutional adolescents than their matched comparisons were rated as significantly "less popular than average with peers" ($p < .025$). Teachers rated the ex-institutional adolescents as significantly more quarrelsome than their school comparisons ($\tau = .28$, $p = .01$) and than their matched comparisons ($\tau = .35$, $p < .002$), and as more bullying than the matched comparison group ($\tau = .24$, $p < .01$). Restored children, in particular, were considered by teachers to be more often aggressive than the adopted children ($p < .03$), than their matched comparisons ($p < .01$), and than their school comparisons ($p < .04$).

Much of the over-friendly behavior observed in the younger children had disappeared by the age of 16. However, according to the teachers ex-institutional adolescents were still seen as "trying to get a lot of attention from adults" more often than the school comparison group ($p < .05$). Adult approval was seen as especially important for half the ex-institutional adolescents and under 1/5 of their matched comparisons ($p < .03$).

Though peer relationships typically become more important in adolescence, according to their mothers ex-institutional adolescents were markedly less likely to have a definite special friend than their comparisons ($p < .02$). When the adolescents were interviewed, the same was also true but to a less marked extent. Those ex-institutional adolescents who did have a special friend were still less likely than their comparisons to turn to their peers for comfort, versus saying nothing or turning to someone else ($p < .02$). The ratings of the 16-year-olds' peer relationships were not related to their attachment to

their mothers. However, ex-institutional children who at age 8 had been described as closely attached to their mothers had better peer relationships at age 16 than those who had not been attached at age 8, significantly so according to the peer rating from the interview with the 16-year-old ($\tau = .32$, $p < .04$). Interestingly, children who had been "solitary by choice" at age 8 were doing well with peers at age 16, whereas those with a small group of friends at age 8 were doing less well at age 16. The one child described at age 8 as having a large, diffuse group of friends had "very severe" difficulties in peer relationships at age 16.

The results of this study give evidence that children who have been deprived of early attachment figures can still form secure attachments when given a chance later in life. However, such attachment does not come simply by placing a child in a family. Rather, it seems to depend on how much the adults concerned are willing to invest in the child and the formation of the attachment. Throughout all years, the adopted children displayed stronger attachment to their parents. This is likely to be so because the adoptive parents spent more time with their children and tolerated their initial dependent behaviors. Restored parents, on the other hand, were often ambivalent about their child's return, expected greater independence of their child and spent less time in shared activities than both the adoptive and comparison working-class parents. They also more often had other children and material difficulties competing for their attention.

Despite this difference in attachment towards their caregivers, the ex-institutional children were alike in other ways. As a group the ex-institutional children demonstrated a pattern of social relationships that differed from that of matched comparisons and was consistent throughout the length of the study, particularly in the teen years. First, they

were more oriented towards adult attention and approval. Second, they were more likely to have difficulties in peer relations. Often this seemed to be due to their competing with other children for the attention of their teacher, in a manner reminiscent of the institutional setting where they had to compete for the attention of the nurse. They were also less likely to have a special friend, thirdly, and to turn to peers for emotional support, fourthly. Finally, 8-year-olds who had been over-friendly towards adults were likely to have become 16-year-olds who were unselective in choosing their friends. Of these five characteristics, four or five of them were shown by half the ex-institutional adolescents and only 1 of their 24 matched comparisons ($\tau = -.65$, $p < .0001$), suggestive of a possible ex-institutional syndrome.

The behavior characteristics represented by this syndrome are only differences from the comparison group, and as such do not necessarily imply difficulties. However, one wonders if and when these adolescents will develop more satisfying peer relationships, and how their current behavior will impact their future ability to relate to partners and children. Though children initially raised in the institution were likely to have more social and emotional problems, by age 16 most problem scores of adopted children were no longer clinically significant, whereas those of restored children were highly variable. The majority of restored children continued to display more antisocial behavior than the other children and to score above the clinical cut-off on the Rutter scale for teachers. Along with problems in school, they were also more likely to have been referred to a psychologist or psychiatrist and to have had contact with the police.

Of the fostered and residential children who had not received continuity of care, a small group by the age of 16, none were considered to be securely attached or

progressing well. It was evident that several felt badly about their lives and aspects of themselves. Antisocial behavior was common and many had feelings of anxiety regarding their future. This pattern was evident from an early age, where 4-year-olds who were overtly disturbed by a recent breakdown of parental or substitute-parent contacts had the largest number of reported problems.

Implications for the Future

The research reviewed so far suggests that foster children are at risk for poor attachment for several reasons: traumatic separation from their primary caregiver, a pre-placement history involving maltreatment or parental substance abuse, and the experience of multiple placements while in care. Their poor attachments often result in relational and other problems as they grow up. These conclusions must be considered in light of the methodological limitations of the research: small samples, minimal control for confounding variables, nonstandardized measures, and varying definitions of attachment. However, the results give significant cause for concern. To conclude this analysis, suggestions are offered for future research and areas of intervention within the foster care system.

Possible Interventions Within the Foster Care System

Child welfare services have no control over the variables related to a child's pre-placement history. Rather, creating a less offensive initial separation, by preparing the child and involving the parents, and increasing placement stability during foster care will likely provide the most influential areas of intervention. In their interviews of 59 children in family foster care, Johnson et al. (1995) found that at least 40% (24 children)

either did not know why they entered care or were confused about the precipitating events that led to their removal. Clearly, these children were not adequately informed or prepared. Further, permanency planning within the system often refers to the effort to return a child to their biological parents, even when this is not necessarily a truly permanent option. The pressure to discharge often leads to a "revolving door" effect, where children are repeatedly bounced between their biological families and various foster care placements.

Several things need to be taken into account when considering the most stable placement for a child. Guerney (1982) reviewed the literature concerning the effectiveness of foster care and found that successful placement depended on the following: (a) the quality of casework with the foster family; (b) selection of loving, caring foster parents with prior experience; (c) foster parents who are tolerant of the children and allow them to function as individuals; (d) appropriateness of placement decisions which provide a foster parent who is capable of being a reliable, stable caretaker; and (e) pre-placement family services to provide resources such as amelioration of economic deprivation or treatment for emotional rejection by parents.

Gill and Amadio (1983) emphasized the importance of examining potential post-placement problems prior to placement with a family in order to determine the family's resources for handling such problems should they occur. Issues to be considered include: visitation and extent of involvement of the biological family; the child's needing room to relate to both sets of parents and deal with divided loyalties; anticipated feelings of helplessness, anger, anxiety, and grief on the part of the foster parents; balancing integration of the child into the family and surrounding community with the reality that

they may not stay there; and dealing with an unpredictable length of time until the case is resolved. Other research (e.g., Marcus, 1991) suggests that the use of attachment or empathy measures and empathy training for foster parents may aid in finding the most appropriate permanent home.

Gill and Amadio (1983) also discussed the key role played by social workers in the foster care system. They stressed that social workers should be trained in permanency planning and that a distinction should be made between foster parents of children expected to be returned to their parents, versus those expected to be adopted. All known background and developmental information must be provided to parents hoping to adopt so that they can responsibly consider their capacity to care for the child and incorporate him or her into their family. Collaboration between social workers and lawyers is also emphasized. Social workers have the potential to serve as mediators who can explain the legal system to parents and facilitate permanency planning through their awareness of legal proceedings.

During the process of permanency planning, it is crucial for trust to be established between everyone involved, trust that the ultimate goal is a stable home for the child. This involves open communication and a clear understanding of expectations. Palmer (1996) viewed social workers' and foster parents' mutual defensiveness and uncertainty about roles as major obstacles to a collaborative relationship that is in the best interest of the child. Biological and foster parents alike must be dealt with in a straightforward, honest manner from the beginning, without being given empty promises. Written agreements describing expectations of all involved would be helpful in this regard.

Wherever a child is placed, an effort should be made to keep siblings together. Grigsby (1994) mentioned the importance of sibling attachments, not contingent on caretaking, in providing reassurance for children with inadequate parenting. In his study, children were returned home after a shorter period of time if they were placed with one or more siblings (Ms = 13 months with siblings and 17.9 months without). In the Johnson et al. (1995) interviews, one child highlighted the common theme of missing family with the following comment about the foster care experience: "We have birthday parties, presents at Christmas, food, a nice house, snacks, own bedrooms, own clothes, but you miss your sister and brother" (p. 969).

When considering whether or not to place children with their biological parents, decisions should not be made based on policy alone (i.e., returning the child at all cost). Though some findings indicate that a trial return home prior to permanent placement can be beneficial (Fein et al., 1983), the results of Tizard's study (e.g., Tizard & Hodges, 1978) suggest that returning children to their biological parents, particularly when these parents are ambivalent about their return, is not always in the best interest of the child. Festinger's (1996) study of children reentering foster care after having been returned to their biological parents examines some of the factors that contribute to children's unsuccessful reunification with their biological family. The cases of 210 children returning home from foster and group homes of 20 New York City child welfare agencies were assessed at the time of their discharge via an 18 page questionnaire completed by the caseworker. Questionnaires consisted of several scales, all shown to be sufficiently reliable (range of Cronbach alphas = .72 - .94).

Upon leaving foster care, the children ranged in age from a few days to 14.3 years old (M = 4.5 years) and had been in their placements for a length of time that ranged from 60 days to 7.8 years (M = 2.1 years). For most of the children, this was their first placement. However, 27 of them (12.9%) had been discharged one or two times previously. Analyses were conducted at 1 and 2 years after discharge to determine characteristics of children and caregivers where placements were unsuccessful and the children returned to care. Altogether, 41 (19.5 %) of the 210 discharged children reentered foster care during the 24 months following their return home. Fourteen of the 29 first-year reentrants had been returned home again by the second year, and 5 of these children reentered care once again. In addition, most of the children who reentered care (55.6%) went to a new location rather than the one they were in at discharge. According to intake notes, the main reasons for reentry were the parent's alcohol or substance abuse, neglect and/or abuse of the child, parenting difficulties, and service refusal or noncompliance.

When compared with children who did not reenter care, the caregivers of first-year reentrants more often had weak parenting skills such as the ability to communicate with their children and handle discipline ($p < .005$), few or no social supports ($p < .005$), and two or more problems ($p < .05$). They were also less likely to participate in organizations and community groups ($p < .005$), and to not receive services due to refusal ($p < .05$) or other reasons ($p < .005$). The strongest model for predicting reentry, using a logistic regression, consisted of four factors: lower parenting skills ($p = .03$), less social support ($p = .04$), more unmet service needs ($p = .06$), and less organizational participation ($p = .07$). The overall equation was highly significant (Model chi-square p

= .0000). Visitation was not linked to reentry; no between-group differences were found regarding the number of face-to-face contacts between caregivers and their children in care, or the number of children's visits home.

At the 2-year follow-up, reentrants and their caregivers were similar in many ways to those who remained out of care. Although conclusions are uncertain due to small numbers, the caregivers of those who reentered after 1 year were significantly more likely to be rated by caseworkers as having both a greater variety and severity of problems at the time of discharge, compared to the caregivers of children who remained at home. For example, workers indicated that one-half had drug or alcohol problems. They did not demonstrate the parenting and social support problems of the earlier group, which might have contributed to the stability of the placement for a time. However, it seems the problems noted eventually overwhelmed the situation.

Findings of Fein et al. (1983) revealed that the parents of children who returned to their biological homes expressed the need for the greatest variety of services, due to multiple family needs such as transportation, housing, and income. Also, at several interview times the number of personal supports was higher and the mean number of stressful life events was lower for adoptive families, compared to biological families. Reports indicated that caseworkers maintained contact with most adoptive parents at all interview times, while greatly reducing contacts with biological families following return of the child to the home.

If reunion is to be successful, biological families will probably need more long-term intervention, both before and after placement. An often overlooked aspect of the Child Welfare Act of 1980 (P.L. 96-272) is its mandate for states to provide programs,

such as home-based service supports to biological parents, to support the success of children's return to their biological home. Full implementation of these requirements seems to be essential if life in a permanent family is to become a reality for foster children. If reunification with the biological family is unsuccessful, every attempt should be made to return the child to the previous foster care placement.

Whether or not children are returned home, visitation with the biological parents may be an important factor in the children's ability to adjust to their circumstances and form healthy attachments. However, a positive working relationship between the child's foster and biological parents seems key in ensuring the positive effects of maintaining contact with both sets of parents. Grigsby (1994) suggested the following:

> In cases in which children must be removed from the care of their parents, efforts should be made to facilitate and strengthen the parent-child attachment through the provision of supportive services. Visitation should be encouraged and facilitated so that the parent-child bond can be maintained. . . . In cases in which children have had life-threatening injuries or in which the parent-child bond does not exist, children should be removed from their parents and legal steps should be taken to terminate parent rights so that the child can be placed with parents who will develop an adequate parent-child bond. (p. 272)

Throughout it all, foster children will benefit most from a caring, supportive caretaker who is sensitive to their attachment vulnerability (e.g., Hodges & Tizard, 1989b). This is particularly true during times of transition. Penzerro and Lein (1995) concluded from their study of conduct-disordered youths that the role of end-stage caseworkers in out-of-home care is particularly crucial prior to emancipation. Because of these children's propensity for acting out in ways that elicit rejection, an important goal during termination is to reduce feelings of abandonment in order to diminish the need for such behavior. Helping the young people to understand their relationship patterns and

learn to label their feelings, particularly regarding loss, is described as key for such therapeutic work.

Recommendations for Future Research

As mentioned in the methodological section, there is a current dearth of research specifically regarding the attachments of foster children. Aside from a few empirical studies, most information is based on case studies and clinical experience. The research reviewed in this paper is related to the foster care experience in various ways, such as examining variables typical of foster children that influence attachment along with the effects of poor attachment. Current research suggests that foster children are at risk for poor attachments. However, further research would be helpful in establishing the level of risk, and in determining intervening variables that may counteract the negative effects of the foster care system on attachment. In such future research, small samples should be avoided and confounding variables controlled whenever possible. More recent studies have made an effort to use comparison groups, and such methodology is encouraged. Other changes would be helpful as well.

In particular, more longitudinal designs would shed light on the long-term attachment and relational patterns of foster children. In any future studies, the construct of attachment needs to be clearly defined. For instance, in Marcus's (1991) study case workers' ratings were predictive but statistically unrelated to the parent and child measures of attachment, which were predictive in their own right. Marcus (1991) concluded that the workers were rating relationships on important but different criteria. This study also highlights the need for a standardized instrument to measure attachment in older children and adults. Marcus's (1990, 1991) Parent/Child Reunion Inventory, the

Hazan and Shaver Attachment Questionnaire (Hazan & Shaver, 1987) and Main's Adult Attachment Interview (Main & Goldwyn, 1984) are all good places to start. If an agreement were to be reached within the field regarding what attachment is and how it should be measured, comparisons could be made across studies and data would be more helpful. Use of such measures would also allow for more powerful statistics, versus simple frequency counts.

An additional focus for further research must be to explore the deeper pathology of attachment disorders. Most previous research has primarily been done with children and with simplistic measurement tools, such as behavior scales, interview rating scales and self-reports (e.g., Egeland & Sroufe, 1981; Poulin, 1985). Such tools cannot address the deeper, underlying pathology that may result from deprivation in early attachment relationships. Since attachment theory assumes later functioning to be a result of internal working models established in early childhood, research should address the long-term effects of such models through a more in-depth look at adult relationships and interpersonal functioning. The internal, mental condition of subjects should be considered along with their behavior. Assessment tools that would likely prove helpful in this regard include measures of personality functioning, such as the Rorschach or MMPI-2 and measurements of object relations organization.

Object relations theory and attachment theory are highly compatible in that they both emphasize the importance of relationship, and both address the nature of a person's inner representation of the world. The concept of "internal working model" in attachment theory is, in essence, the "object relations unit," an internal self-object connected to an internal other object (in this case a person) by an affective bridge. In

object relations theory, similar to attachment theory, personality develops through early childhood relations that produce internal self-other representations. These representations, or object relations, eventually become structured as enduring intrapsychic organizations or mental templates. They include a self-image and an image of the other, imbibed with associated emotions and impulses, and tend to dictate the pattern of all subsequent interpersonal relationships.

If attachment and object relations theories are correct, then the child who suffers from insecure attachment to a primary caregiver will become an adult with poor internal organization and a limited ability to form healthy relationships. The validity of this hypothesis can be tested using any number of the current object relations measures enumerated below. For example, The Comprehensive Object Relations Profile (CORP; Burke, Summers, Selinger, & Polonus, 1986) instrument is a semi-structured projective test that consists of the following subscales: Object Constancy, Object Integration, Subjectivity, and Appreciation (or empathy). Subjects are asked to respond to specific questions regarding interpersonal vignettes, and responses are then rated on each of the above dimensions. The CORP has been shown to significantly differentiate between schizophrenics, borderlines, and neurotics, and has proven to be highly reliable (Burke et al., 1986).

The Developmental Analysis of the Concept of the Object Scale (DACOS) was developed by Blatt, Brenneis, Schimek, and Glick (1976) to assess the organization and content of the "concept of the object" in accordance with developmental theory. Representations of human figures on the Rorschach are coded on the DACOS in terms of differentiation, articulation, and integration. In normal development there is a significant

increase in well-differentiated, highly articulated, and integrated human figures in constructive and reciprocal interactions, as found in a 20-year longitudinal study of 37 subjects (Blatt et al., 1976). In comparison with these normals, a sample of 48 adolescent and young adult inpatients had human figures that were significantly more distorted and partial, inaccurately perceived, and seen as either static or engaged in unmotivated, incongruent, nonspecific, and malevolent activity.

Another instrument based on the Rorschach, the Mutuality of Autonomy scale (MOA; Urist, 1977) was developed to measure the degree to which a subject perceives figures in relationship as psychologically autonomous. The subjects' object representations are measured along seven dimensions, reflecting different developmental levels. A greater capacity for collaborative and reciprocal relationships is indicated by a high frequency of Most Adaptive Responses (MAR), and malevolent and destructive interactions are indicated by Least Adaptive Responses (LAR). The MOA scale has shown both reliability and internal validity, in that MOA scores of Rorschach responses for psychological patients correlated significantly with independent clinical ratings of mutuality of autonomy (Urist, 1977; Urist & Shill, 1982). However, the scale seems to measure aspects of psychopathology more consistently than it measures quality of interpersonal relationships, as demonstrated by Blatt, Tuber, and Auerbach (1990).

The Social Cognition and Object Relations Scale (SCORS; Westen, Lohr, Silk, & Gold, 1990) is a method of rating TAT responses and narrative accounts of relational episodes, such as interview data or autobiographical descriptions of early memories. It includes four subscales or dimensions: Complexity of Representations of People (including differentiation and integration), Affect-Tone of Relationship Paradigms

(malevolent to benevolent), Capacity for Emotional Investment and Moral Standards, and Understanding of Social Causality (the extent to which attributions are logical, accurate, complex, and psychologically minded). The scale weds social-cognitive personality theory, the idea that the concept of self is embedded in interpersonal experiences, with that of object relations. There is some evidence for its construct validity (Koff, 1999), and research supports its reliability and validity (Cramer, 1999).

The Bell Object Relations Inventory (BORI; Bell, Billington, & Becker, 1986) is a subtest of the Bell Object Relations and Reality Testing Inventory (BORRTI), which consists of the following subscales: Alienation, Insecure Attachment, Egocentricity, Social Incompetence, Reality Distortion, and Uncertain Perception. Object relations dimensions include the subscales of Alienation (lack of trust in relationships and difficulties with intimacy), Insecure Attachment (excessive worries about being accepted and fears about abandonment) and Egocentricity. These subscales have been confirmed through factor analysis, and have been shown to have high internal consistency and to be free of age, sex, or social desirability response bias (Bell et al., 1986). The BORI is an objective, self-report measure, but may be limited due to its heterosexist language.

Though the relationship between these object relations measures and those of attachment is as yet somewhat unclear (e.g., Rothstein, 1997), many researchers are already using them in place of other attachment measures (e.g., Deason, 1998; Terletzky, 1995). In addition, the results obtained with these instruments have now provided some empirical support for the impact of internalized models on both relational and pathological functioning (e.g., Monk, 1998; Riebeling, 1997; Scott, 1998; Van-Manen, 1996; Willens, 1995). Cooke's (1997) study found that a significant amount of the

variance in subjects' quality of relationship experiences across a number of domains were explained by the maturity of their object relations. Using the SCORS, Calabrese (1998) found a significant relationship between individuals' representations and adult attachment.

Not only are these measures pertinent to the study of attachment, but they have also been used to study samples representative of the foster care population. For example, studies have documented impaired object relations in adults who lost a parent in childhood or adolescence (Cohen, 1997) and in children with histories of abuse and/or neglect (e.g., Freedenfeld, Kelly, 1999; Lazarus, 1997; Ornduff, 1997; Ornduff, & Kelsey, 1995; Vivona, 1997). With the use of object relations assessment instruments, those interested in studying attachment can empirically address questions regarding the long-term influence of internal working models on interpersonal relationships and the types of pathology one is likely to see as a result of disturbed early attachment. The latter may be particularly important in light of several studies that found poor object relations to be associated with borderline functioning (e.g., Armbrust, 1997; Bell et al., 1986; Sharifha, 1995; Westen et al., 1990) and with conduct disturbance (Murphy, 1997).

In conclusion, the attachment research reviewed poses many methodological limitations that often make results inconclusive and difficult to compare. However, there is an agreement within the field regarding the multiple risks to attachment posed by the foster care system. In addition to maltreatment and other preplacement risks, foster children are often moved from place to place with no chance to form positive, long-standing attachments. These children may demonstrate adverse peer relations, problems in school and behavioral difficulties related to their poor attachments. Although insecure

attachment does not necessarily lead to clinical pathology, it is likely to cause significant difficulties in relating to others. It is possible that this difficulty will translate into a life-long struggle to maintain satisfying, intimate relationships.

Caseworkers can play an important role in helping a foster child overcome the risks associated with care. They should facilitate open communication between all parties involved, including the children, and help biological families to access services and maintain contact with their children. Special consideration should be given to placement so that the child experiences the fewest changes possible. Unfortunately, foster care caseworkers are often overworked and pressured by the system to make decisions that may not always be in the child's best interest. Until systemic changes are put into place, it is likely that foster children will continue to face the risk of insecure attachment.

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