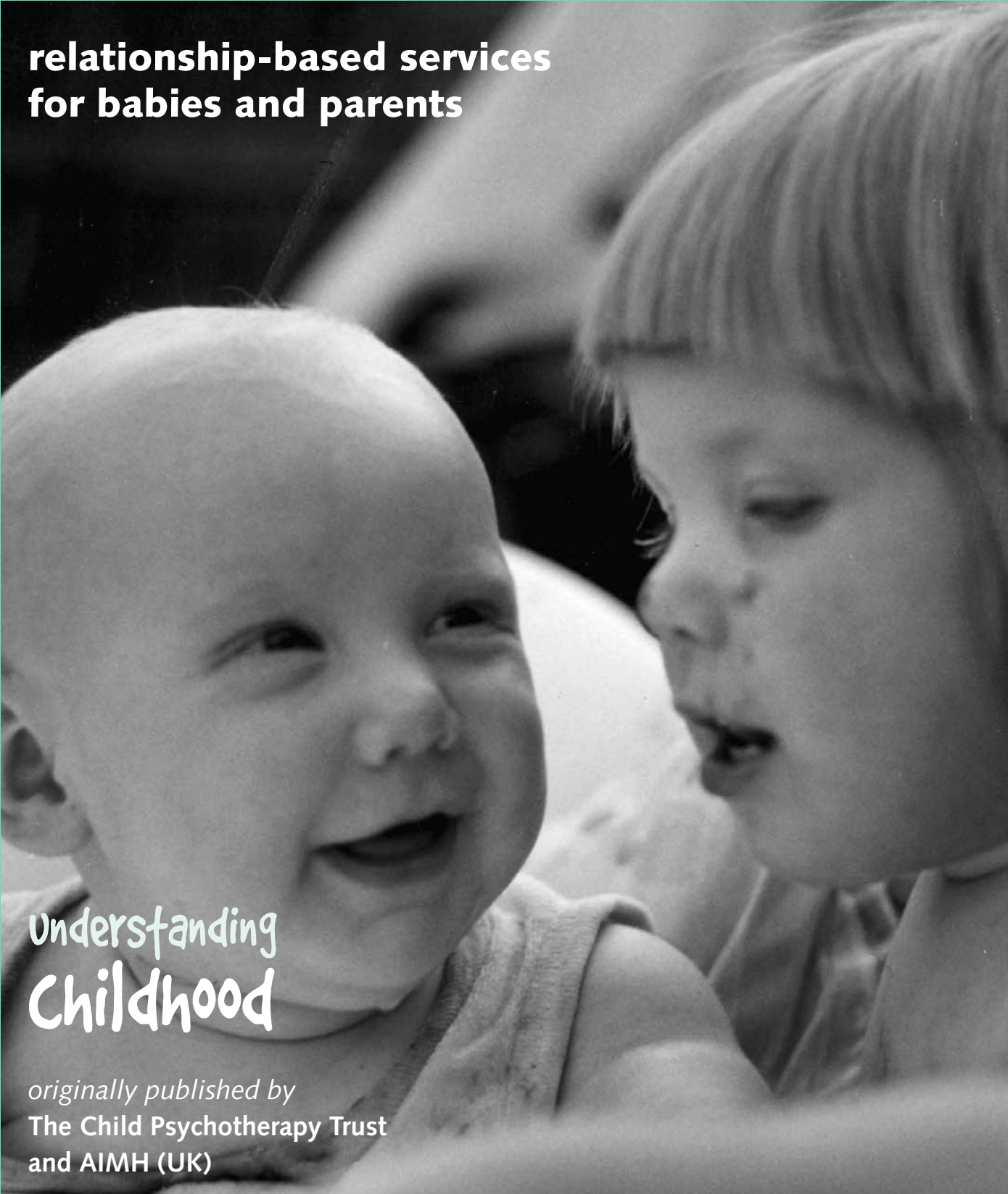


# reducing risks

**relationship-based services  
for babies and parents**

Understanding  
Childhood

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# 1 Executive summary

## Overview

This paper is part of the Child Psychotherapy Trust's research into infant mental health services and builds upon the report *Promoting Infant Mental Health – a framework for developing policies and services to ensure the healthy development of young children*, published by the Trust and the Association for Infant Mental Health (UK) in 1999.

Through the summarising of information about recent research on infant brain development and the presentation of a number of international case studies, it is hoped to further the debate about the need for integrated infant mental services within the UK, to promote and support the emotional development of babies from across all sections of the population. The case studies, which illustrate a number of different ways in which early intervention services may be provided, are interspersed throughout the report.

The paper complements the research report *Positive Beginnings – Exploring UK provision for the social and emotional development of babies*, also published by the Trust as a part of its *Early Days Project*.<sup>1</sup> This project explored service provision in England and Wales focused on meeting the mental health needs of young children aged under three.

The full version of the literature review outlined in this paper is available on the Child Psychotherapy Trust's and AIMH (UK)'s web-sites – *Early Intervention and Infant Mental Health: Relationship-Based Services for High Risk Families*.  
[www.childpsychotherapytrust.org.uk](http://www.childpsychotherapytrust.org.uk)  
[www.aimh.org.uk](http://www.aimh.org.uk)

## Research on brain development

Research on brain development using new techniques for imaging the functioning of the brain has shown that early life experiences physically alter the brain, with long-lasting effects.<sup>2</sup>

We now know that early patterns of response become fixed in infants. The brain is at its most adaptable for the first two years after birth and the older a child becomes then the harder it is to 're-wire' certain areas of the brain.

This highlights both the importance of intervening early where problems are detected or probable, and also of infants forging secure relationships with their caregivers since these are a protective factor, conferring confidence and adaptability, although not a total guarantee of future mental health.

Without intervention, a child who has experienced abuse or neglect as an infant will unwittingly continue with patterns of response that are engraved in the mind, even if circumstances change.

## Early intervention services

Research indicates that specialised, well-resourced and planned interventions for supporting families with young children are effective.<sup>3</sup> Although there are methodological limitations in much of the research literature in this area,<sup>4</sup> there is a growing interest in early intervention services and a core of replicated findings suggests that such interventions can bring both short and long-term benefits for children and parents. For babies and parents at risk, intervention can redirect a likely developmental pathway along a new, healthier direction.

The guiding principle of early intervention however, is that services need to be carefully tailored to their client population and their aims clear – otherwise lower than expected take-up of services may result.

The research on risk factors is of value here in helping to identify babies and families at high risk and to then target resources accordingly. There is general agreement on what these factors are, how they affect parenting and how they can adversely affect an infant's development.

There is also evidence to support early intervention at the ante-natal stage and/or immediately after birth. Interventions at these times have the greatest and most sustained effect by taking advantage of both the neurological plasticity of the baby and the fluid dynamics of a family in the process of adapting to a new member.<sup>5</sup>

Such services can be either universal or targeted on an individual basis, with the best results being shown from strength-based approaches that focus on parental empowerment and involvement.

Finally, economic analysis suggests that early childhood interventions are effective. There are indications that they can bring savings in public expenditure for special education, social services, health, welfare assistance and criminal justice. However providing effective early intervention services brings with it a cost – most particularly, in terms of manpower since such provision demands a staff possessing a core of specialised knowledge and skills congruent with the wide range of risk factors and developmental issues that need to be considered.

## Recommendations

- 1 The information presented in this report indicates that there is already considerable knowledge about the importance of early brain development on a young child's emotional well-being, with lasting effects throughout childhood and beyond. Similarly, the crucial role early intervention services may play in supporting families with young children, is apparent. It is therefore vital **that this knowledge continues to be developed and effectively disseminated to practitioners in the field and those responsible for policy in this area.**
- 2 Running alongside this, it is quite clear that early intervention provision is not the responsibility of health providers alone. Whilst child and adolescent mental health services (CAMHS) will obviously be key players, **the role of other agencies such as social services, and the development of fully developed inter-agency approaches to provision in this field, needs to be encouraged.**
- 3 For both of these things to happen, it is important that infant mental health is on the current national policy agenda and that attention is given to developing **a clear policy framework which gives full recognition to the importance of addressing the mental health needs of young children.**

## 2 The importance of the early years

Probably the most important period in everyone's life is one they cannot remember. The first two or three years, the time before memory can be verbally tagged for later retrieval, set their stamp on all that comes after. This can be positive, as when a child gains the resource of being resilient in adversity, so later stressful events do not become a trauma.

Alternatively, this period can have negative effects, when a child's early parenting has caused deep-seated damage, or to quote Balint, a 'basic fault'<sup>6</sup> because there was too great a discrepancy between the infant's needs and the quality of caregiving that was available. This is something that is often pushed aside since, as various researchers have noted, it is often painful to recognise and thus address mental health problems in infants and young children.<sup>7</sup>

During the 1990s, research on brain development has re-written the textbooks. The advent of new techniques for imaging the functioning brain, has shown that an infant's early interactions with the environment indelibly influence brain development and as such, their socio-emotional functioning for the rest of their lifespan.<sup>8</sup>

Other researchers, who have reviewed the evidence from many different disciplines on the genesis of violent behaviour, return to the cellular level, for example, Karr-Morse and Wiley who note:

'The strength and vulnerability of the human brain lie in its ability to shape itself to enable a particular human being to survive its environment. Our experiences, especially our earliest experiences, become biologically rooted in our brain structure and chemistry from the time of our gestation and most profoundly in the first months of life.'<sup>9</sup>

We now know that the brain is at its most adaptable, or plastic, for the first two years after birth, during which time:

'the primary caregiver acts as an external psychobiological regulator of the "experience-dependent" growth of the infant's nervous system. These early social events are imprinted into the neurobiological structures that are maturing during the brain growth spurt of the first

two years of life, and therefore have far-reaching effects.'<sup>10</sup>

Thus from a 'basic biological perspective', the structure and functioning of the child's developing brain – is shaped by the parent's more mature brain and the 'emotional communication' between the two.<sup>11</sup> The older the child becomes, then the harder it can be to 're-wire' certain areas of the brain. This means that without intervention, a child who has experienced abuse or neglect as an infant will unwittingly continue with patterns of responses that are engraved in the mind, even if circumstances change.

### The challenge of intervening early

In many instances, when an older child comes to the attention of specialist helping services provided by Education, Health or Social Services, it may appear difficult to differentiate between the effects of early experiences and reactions to current family dysfunction, which often predates the birth of the child anyway. Sometimes a simple change in parental understanding and attitude, or direct treatment of some form with the child, will enable the problem to become resolved.

However, a significant population of children, whose effect and cost is out of all proportion to their number, cannot be helped in this way. It is just too late. This is why early intervention for children and their families, in particular those who may be disadvantaged or high risk, can be a sound economic investment.<sup>12</sup>

Babies cannot wait – if they have been adapting to an emotionally inimical setting for any length of time, then the damage caused by inappropriate care-giving will not be undone by a change of circumstances. This is all too clear with many children who have been fostered or adopted, for whom much more intensive and long-term interventions become necessary, with a subsequently greater drain on resources.

## Case study – Chelsea

Seemingly normal at birth, Chelsea was born more than 40 years ago in a small coastal town in the Pacific Northwest. Unknown to her parents – and to a host of doctors who by school age evaluated her as retarded – Chelsea was deaf. She was isolated in school, where she was classified as being of low intelligence. It wasn't until she was 31 that a neurologist recognised her real disability and fitted her with a hearing aid. Now Chelsea is an active member of her community. She works in a veterinary clinic. The only problem is that after 15 years of therapy and

with normal intelligence, she still cannot speak intelligibly. Chelsea is living testimony to the lesson that in human brain development, there is a critical period for spoken language. Because her brain was deprived of the sounds she needed to hear at a crucial time, the physical connections necessary for organising speech in coherent sentences have been forever lost to her. Chelsea will never master normal sentence construction.

Source: *Ghosts from the nursery* (Karr-Morse and Wiley 1997)

## Brief insight-oriented infant-parent psychotherapy – Geneva and San Francisco projects

A research project in Geneva has compared the results achieved by brief insight-oriented, infant-parent psychotherapy with those attained by the more behaviourist method of Interaction Guidance. In the process, both forms of intervention were demonstrated to bring about appreciable, positive, changes in the mother-infant relationship.

Since the study was carried out on families who had been referred to a child guidance clinic, it was felt to be unethical to have a control group, although comparisons could be made with a non-clinical but otherwise matched sample. The results of both forms of treatment were evaluated, and: 'marked symptom relief was observed in several areas, with the greatest improvements in sleeping, feeding and digestion (i.e. symptoms affecting physiological functions).'<sup>13</sup>

In general, mothers became less intrusive and infants more co-operative, with maternal sensitivity to the baby's signals increasing after treatment. 'The results of the study indicate that brief mother-infant psychotherapies were effective in treating cases consulting for early functional disorders.'<sup>14</sup> The only differences between the two approaches were that Interactional Guidance brought about more change in mothers' sensitivity, while psychodynamic therapy had a greater impact on maternal self-esteem.

In infant-parent psychotherapy the real 'patient' is the relationship between baby and caregiver. It is to be expected that this approach would directly affect maternal self-esteem, since emotional

difficulties from past relationships are addressed within the context of a new relationship which is secure enough to both withstand and encourage exploration. 'The quality of the relationship between therapist and parent is perhaps the more crucial infant-parent psychotherapy than in any other form of treatment, because it is intended to be a mutative factor in the parent's relationship with his or her child.'<sup>15</sup>

In another study from San Francisco, designed to evaluate the effectiveness of infant-parent psychotherapy, which compared an intervention group of mothers and infants with a similar control group, it was found that 'mothers who formed a strong positive relationship with the intervenor tended to be more empathic to their infants at outcome, and their children in turn tended to show less avoidance on reunion.'<sup>16</sup> However, the most important treatment variable turned out to be the mother's ability to use infant-parent psychotherapy to explore her feelings towards herself and toward her child.

The two randomly assigned groups of mother-infant pairs where the child had been assessed as demonstrating insecure attachment, were further compared with a second control group of securely attached infants and their mothers in order to examine outcomes. Evaluation took place when the child was two years old, after one year of treatment. This found that the intervention group performed significantly better than the anxious controls in the outcome measures and was essentially indistinguishable from the control group.

# 3 The need for secure attachment

Attachment theory, developed by the British psychiatrist and psychoanalyst John Bowlby, has provided a framework for studies on both the immediate and long-term effects of early relationship experiences on the developing child. Attachment research has integrated the inner, psychological, world with the outer world of behaviour to demonstrate that:

‘The patterning or organization of attachment relationships during infancy is associated with characteristic processes of emotional regulation, social relatedness, access to autobiographical memory, and the development of self-reflection and narrative.’<sup>17</sup>

It is this branch of psychoanalytic thinking that largely informs both research and therapeutic practice within the field of infant mental health.

Secure attachment is a protective factor conferring confidence and adaptability, although not a total guarantee of future mental health. Without this emotional resource, neither child nor adult will feel free to make the most of their life’s possibilities. An insecure child has too many anxieties that get in the way of investigating the world, so horizons stay safely near.

Active, satisfying and reciprocal relationships with parents create the ‘taken for granted’ basis of a sense of identity, self-esteem, appreciation of others and self-control:

‘Human relationships, and the effects of relationships on relationships, are the building blocks of healthy development. From the moment of conception to the finality of death, intimate and caring relationships are the fundamental mediators of successful human adaptation.’<sup>18</sup>

More than that, the quality and content of the baby’s relationship with his or her parents has a physical effect on the neurobiological structure of the child’s brain that will be enduring.<sup>19</sup>

Research makes it clear that secure children show more concentrated exploration of new situations and focus more during tasks – secure attachment provides the best-known psychological basis for ‘tension-free playful exploration.’<sup>20</sup> By the time infants enter into their second year of life, there are consistent observable differences in their behaviour that depend upon the level of security they have experienced in the relationship with their parents.

Thompson for example, notes that children who are securely attached tend to show greater enthusiasm

and compliance, and less frustration and aggression during shared tasks with their mother; and more affective sharing and compliance during free play with their mothers. Those who are securely attached, also tend to maintain more harmonious relations with parents in the second year.<sup>21</sup>

Attachment provides the launch pad; if it is firm and trustworthy then better the take-off and the more successful is the flight!

## Attachment difficulties

Insecure attachment is a risk factor that will interact with other risks present in the emotional and physical environment of the growing child; the level of attachment disturbance is equivalent to a level of

### Types of attachment difficulty

- ▶ **Avoidant attachment** may emerge in an infant whose parents have discouraged overt signs of affection or distress or who have failed to offer sympathy or comfort. As the child gets older, close relationships are avoided, and as adults, they may mask their insecurity by becoming addicted to work, acquisitions or achievement, or retreat behind obsessional or ritualistic behaviours.
- ▶ **Ambivalent or resistant attachment** may develop when there is inconsistent parenting and a lack of nurturing/protection. It may lead to a child having a marginal threshold for distress and low self-confidence. Relationship difficulties in adulthood can result where there is a pattern of either a withdrawal from others or a compulsion to be dependent. Anti-social personality disorders may also stem from this unconscious outlook on life.
- ▶ **Disorganised (or controlling) attachment** can occur where parents have so many unresolved emotional issues of their own that they have no mental space for their baby or, more serious, if they actually pose a threat to the infant. Disorganised attachment, frequently the result of maltreatment, often manifests as disruptive (or rather desperate) responses that will continue even if the child is moved to another family. It is, in addition, an internal risk factor that influences many different areas of development, and can result in violent, disruptive and callous behaviours emerging in children as they grow older.



vulnerability that is difficult to change without help.

Children with problems related to insecure attachment begin to soak up statutory resources from early on when 'externalising' behaviour (aggression, non-compliance, negative and immature behaviours, etc.) demands a response.<sup>22</sup>

This is probably the largest group of children that Social Services, Special Education and the Child and Adolescent Mental Health Service are expected to deal with, incurring costs which have been described as 'staggering.'<sup>23</sup> These are the children who do not make use of education, who disrupt the classroom and demand attention as they become either bullies or victims, who sometimes harm themselves as much as others. As teenagers they attract labels as an alternative to success – conduct

disorder, disruptive pupil, delinquent or disturbed, and mental health diagnostic categories get dropped around them out of desperation.

Furthermore, infants who have suffered adverse relationships do not just impact on 'helping' services; as teenagers and adults they are grossly over-represented in the criminal justice system. This is not only a drain on resources, it also signifies a large population who is not in a position to contribute to the wider society. A wide variety of research studies have also highlighted links between disorganised attachment in infancy and a number of severe mental health problems in adulthood such as borderline personality disorder<sup>24</sup> and multiple personality disorder.<sup>25</sup>

### Nurse home visitation program – USA, various locations

This provides data from a 20-year research project following the outcome of a preventative intervention that targeted a high-risk population. The program involved home visiting by specialist nurses that commenced before the birth of an infant.

Evaluation involved two randomised trials (in Elmira, New York and Memphis, Tennessee) plus one other that is still in progress (in Denver). This has shown little benefit to the wider population; however among low-income unmarried women reduced rates of childhood injuries and ingestion, that may be associated with child abuse and neglect, have been demonstrated.<sup>26</sup> Mothers were found to have experienced better levels of formal and informal support, improved diets and to smoke fewer cigarettes. Long-term follow-up of families in Elmira indicates that nurse-visited mothers were less likely to abuse or neglect their children or to have

rapid successive pregnancies. Having fewer children has also enabled women to find work, become economically self-sufficient, and eventually avoid substance abuse and criminal behaviour.

Benefits for the children in the programme were also reported. By the time they were 15 years of age, they had fewer arrests and convictions, smoked and drank less, and had fewer sexual partners.

When these children were four years old, the cost of the programme was less than the savings that had been made. This intervention explicitly promoted sensitive, responsive, and engaged caregiving in the early years of a child's life. It was found that the biggest obstacle to benefiting from the service was the presence of domestic violence, with treatment effect diminishing as the level of violence increased.<sup>27</sup>

### Carolina Abecedarian project

An example of a centre-based early intervention service is the Carolina Abecedarian Project where high-risk children received intensive early education five days a week, beginning at six weeks and ending at five years.

Two groups of similar babies were selected, all with mothers who had educational difficulties. The control group, who only received free milk and nappies, were all (except one) eventually assessed as being retarded or of borderline intelligence. In the intervention group, all the children tested within the normal range of intelligence by age three. By age 15, they scored significantly higher in

general knowledge, reading and mathematics, and only 24% (48% in the control group) needed special education services.<sup>28 29</sup>

Furthermore, (according to the project's website) when the children reached 21 years of age, 35% of the intervention group were at college, compared to 14% in the control group. 65% were in employment compared to 50% in the other group. The children whose mothers had the lowest I.Q. appeared to gain the most from this intervention. Those who had a follow-up programme into elementary school benefited further still.

# 4 Addressing childhood difficulties

Getting the first, prototypical, important relationship of anyone's life more or less right is a necessity, not a luxury. This is the most sensible and economic time to put in therapeutic resources. And furthermore, unique to this stage of life, one can guarantee that the child both wants to co-operate and has not got stuck in the trap of gaining self-esteem from antisocial acts. This is society's best chance to help itself.

The secure child (and adult) has the psychological, and neurological, capacity to manage their own emotions and feelings. Responses to stressful or exciting circumstances can be thought about rather than acted out. In this, the early influence of the carer is of paramount importance, as Schore explains:

'As a result of being exposed to the primary caregiver's regulatory capacities, the infant's expanding adaptive ability to evaluate on a moment-to-moment basis stressful changes in the external environment, especially the social environment, allows him or her to begin to form coherent responses to cope with stressors.'<sup>30</sup>

However, when infants have been exposed to relationships likely to engender disorganised attachment, they have no choice about adapting to these emotional conditions, which can result in brain development that leaves the young child unable to

regulate emotion or cope with stress.<sup>31</sup>

An inability to think about others' feelings coupled with an equal inability to control impulses will have serious long-term consequences, as highlighted by Karr-Morse and Wiley who explain:

'The interactive process most protective against later violent behaviour begins in the first year after birth: the formation of a secure attachment relationship with a primary caregiver. Here in one relationship lies the foundation of three key protective factors that mitigate against later aggression: the learning of empathy or emotional attachment to others; the opportunity to learn control and balance feelings, especially those that can be destructive; and the opportunity to develop capacities for higher levels of cognitive processing.'<sup>32</sup>

## Research on risk factors

If the early relationship between the baby and his or her parents is given the attention it deserves then this has two major implications:

- ▶ Firstly, many later emotional and mental health problems can only be reworked in a similar fire as forged them. Long-term, intensive and (this time) thought-about relationships may be necessary to help those who carry the mental imprint of early trauma and neglect.
- ▶ Secondly, by recognising that the parent-infant relationship is the crucible for change and development, the setting to be considered is thus expanded since it moves from the individuals to include the wider conditions impinging upon this relationship. Looking for reasons removes blame. Every parent always does the best they can for their baby within what is possible for them.

A broader perspective, trying to understand rather than pass judgement, points to the importance of a catalogue of known **risk factors**, about which there is a large body of research, with agreement on what these are and how they affect parenting.<sup>33 34 35</sup>

Research on risk factors means that babies who might be likely to have adverse developmental pathways through life, because of stresses in their initial relationship with their parents, can be identified early on. In other words, it is feasible to anticipate what sort of situation tends to lead to insecure attachment, and thus offer infant-parent treatment, or some other form of help, before anything goes drastically wrong – that is, before responses get so 'hard-wired' into the brain that they become increasingly hard to change.

### Case study – Ryan

Ryan lay in a crib day after day. He drank cold milk from bottles that were propped to feed him. He heard the sounds of other children but he rarely saw an adult face. He was handled infrequently ... at nine weeks, when Ryan was finally placed in his adoptive home, he would turn away from efforts to engage him ... He had gained weight normally, and in spite of his rash, was a handsome red-haired baby. But he did not want to be touched. If he cried he preferred to lie on a flat space, where he would comfort himself. Ryan was not autistic. He was twice separated from major caregivers and severely neglected. What his brain had missed was touch, trust and reciprocal contact with a parent. Now 25 years old, Ryan looks normal. He is a college student and works full-time. But he is still somewhat withdrawn, and his relationships with people, while improving each year, are superficial and lack spontaneity.

Source: *Ghosts from the nursery* (Karr-Morse and Wiley 1997)

## An infant mental health service in Los Angeles

A bridge to a purely treatment-based programme is provided by the relationship-based intervention for very high risk mothers that has been set up in Los Angeles. This service builds upon a previous randomised trial comparing those in treatment with a similar comparison group only given paediatric appointments. These were mothers and babies who almost invariably would have come to the attention of an available early intervention service. The project workers were all mental health professionals with experience in child development and the family systems approach.

The primary goal of the intervention was: 'to offer the mother the experience of a stable trustworthy relationship that conveys understanding of her situation, and that promotes her sense of self-efficacy through a variety of specific interventions.'<sup>40</sup>

When compared with the control group, mothers

in the intervention group were found to be more responsive to the needs of their infants and more effectively encouraged their child's autonomy and task involvement. On a variety of indices, at 12 months, the children in the intervention as opposed to non-intervention group were found to be more secure, autonomous, and task involved.<sup>41</sup>

The two groups were compared again when the children were two years old. Findings at this time highlighted that the mothers in the intervention group, in comparison with those not in the group, used more appropriate forms of control, and their children responded more positively to these controls. It was also noted that mothers who did not experience the help of the intervention had significantly more difficulty controlling their child if it was a boy as opposed to a girl, using the least appropriate methods of control which the boys responded to more negatively.<sup>42</sup>

## Research on risk factors

- ▶ **Risk factors intrinsic to the baby** include low birth weight, congenital abnormalities and feeding difficulties.
- ▶ **Risk factors external to the baby** begin with the emotional climate of the family and, beyond that, embrace social issues such as racial discrimination and poor housing. They exert their influence by impinging on, and distorting, the relationship between baby and parent.
- ▶ **Immediate risks within a family** (the only one the baby has to adapt to) include: domestic violence; maltreatment of the baby; a teenage mother without support; a parent with a serious mental health or addiction problem, or a background of neglect or abuse in their own childhood; inadequate income, since poverty can amplify and concentrate all the other stresses on a vulnerable family.<sup>36 37</sup>
- ▶ **Maternal alcohol consumption** during pregnancy is a significant risk factor – research has revealed this to be the single greatest cause of cognitive delay in children.<sup>38</sup> Other drugs, such as cocaine, heroin, nicotine and marijuana, have also been shown to have a harmful impact in the developing brain of the foetus. Their effects may manifest as delay or hypersensitivity in different aspects of the child's subsequent development.
- ▶ **Lead (from air or water pollution) and malnutrition** have been shown to cause similar long-term problems.<sup>39</sup>

## Support to mothers in Holland

A similar clinical-type intervention to the Los Angeles example, was carried out in Holland, the difference being that the risk factor resided in the infant, not in the surrounding family. The aim of the programme was to help mothers with infants who demonstrated an irritable temperament, since there is evidence that negative emotionality in babies leads to later behavioural problems.

Mothers were helped to respond more to both positive and negative emotions in their child, and at the same time encouraged to show less intrusive behaviour and detached uninvolvement. The quality of attachment between parent and child appeared to be enhanced by the parent's ability and willingness to be sensitively responsive to their child. This was confirmed by the finding that: 'more toddlers whose mothers participated in the intervention were securely attached than there were securely attached control group dyads.'<sup>43</sup>

At age two years, the mothers in the intervention group still demonstrated a greater responsiveness and involvement with their toddlers. And at three years both parents were more attuned to their child than those in the control group. 'Intervention children continued to be more secure in their relationship with their mother, exhibited less behaviour problems, and were better able to maintain a positive relationship with the peer than the control group children.'<sup>44</sup> Findings from this study suggest that helping parents respond in a more sensitive or thoughtful way to their infants promotes secure attachment.

# 5 Different approaches to infant mental health

Where a child appears to have a disadvantaged start in life, the whole context of the baby-parent relationship needs to be taken into account. This includes consideration of the 'complex interplay between children with a range of personalities, the variations in their families, and their economic, social, and community resources.'<sup>45</sup>

There are a large number of therapeutic interventions that have been demonstrated to help the relationship between parent and infant, but results cannot be sustained in a vacuum. In a review of the impact of current and past early intervention programmes, it was found that none had:

'made any difference to the income, housing conditions, or employment of the parents involved, despite the fact that the families were often chosen because they had extremely low incomes.'<sup>46</sup>

Exactly the same adverse influences that have impinged on the adult members of the family will probably continue to exert an effect on the child throughout his or her development, making specific

predictions difficult unless wider issues (such as standards of education and employment prospects) are also tackled head on.

As such, perhaps it will not be possible to gauge the most important long-term effects of early intervention until follow-up studies are carried out on these infants when they have become parents in turn.

## Prevention versus treatment?

Early intervention can have a differing emphasis on two approaches: the first is *prevention* (targeting a population, or just a single family, identified by risk factor analysis), and the second is *treatment* (working with referred cases where something has already gone amiss). This is a rather artificial divide, since in practice both goals are compatible with each other within a single programme; e.g. contact with families at risk will frequently reveal 'hidden' disturbances that need to be referred on to a more specialised therapeutic service.

## Theoretical approaches to intervention

- ▶ **Parent-child bonding** usually initiated immediately post-birth, the model aims to increase mother-child contact and thus increase maternal involvement and affection
- ▶ **Highlighting of infant skills** may be undertaken in the postnatal period, to demonstrate infant's abilities and thereby strengthen parental interest and involvement
- ▶ **Parental teaching** including helping parents to increase visual exploration and soothe
- ▶ **Psychodynamic (brief) psychotherapy** designed to modify the maternal representation of her infant through interpretation of what the mother 'projects' onto her child
- ▶ **Attachment-based work** to enhance parental sensitivity – where the aim is to alter the maternal view of her infant by identifying the child's active role in relationships and to responsiveness and consistency
- ▶ **Developmental guidance** to build up parents' knowledge of child development and expected milestones, both to encourage child progress and to reduce unrealistic parental expectations
- ▶ **Interactional Guidance** is similar to psychodynamic work but more task-oriented; emphasises a fostering of mutual enjoyment, often using video, role-playing and modelling by the therapist
- ▶ **Transactional interventions** where the focus is on the interplay between the parental influence on the infant and vice versa and the aim is to help parents to adjust their behaviour to infant cues and thus to enhance their management of any child difficulties
- ▶ **Infant-led psychotherapy**, derived from clinical work, involves guiding parents in ways to relax with their infants and to read their signals
- ▶ **Supportive interventions** aimed at empowering parents through social skills training and helping parents access community resources, often have roots in nursing and social work
- ▶ **Ecological based interventions** are similar to supportive interventions but take account of the family's context and the attendant risk factors within the child, the family and the community

Source: adapted from *From pregnancy to early childhood: early interventions to enhance the mental health of children and families, executive summary*, The Mental Health Foundation, 2002

However, conceptualising early intervention services in this way does provide a framework for examining the results of projects that were set up with different aims and methods. Preventative services can either be centre or home-based, just as treatment options are either clinic or home-based (and many families will be able to make use of either site for different services.)

## The 'essentials' for early intervention services

Two recent reviews examine the necessary characteristics of early intervention services for high-risk parents and babies if they are to meet the needs of this client group.<sup>47 48</sup>

From the information gathered, it appears that:

- ▶ The guiding principle of early intervention is that services need to be carefully tailored to their client population, there is no single answer.
- ▶ Services can be roughly divided between those that are centre-based and those that are delivered in the home. Whatever the setting, it is important that services are targeted appropriately and the aim of every provision should be clear.
- ▶ Proactive programmes, either universal or individually targeted and beginning either pre-natally or at birth, have the greatest and most sustained effect.<sup>49</sup>

- ▶ The best results are attained with strength-based approaches that focus on parental empowerment and involvement.
- ▶ The intensity and duration of any intervention are important, but as aspects of the quality of services they are hard to measure. Whilst there are some studies suggesting positive results linked to higher amounts of service input, few researchers have addressed these variables, as there are frequently ethical implications to conducting randomised experimental studies on a vulnerable, clinical, population.
- ▶ Infant mental health services demand a core of specialised knowledge and skills congruent with the wide range of risk factors and developmental issues that need to be considered. In many ways, only a dedicated, specialised, well-functioning team can hope to move between such matters as discordant attachment relationships, adult mental health and substance abuse, and the problems forced upon a family by economic hardship.
- ▶ Finally, even if an intervention seems to fit the bill, there is no guarantee it will deliver results unless the service created is appropriately funded and staffed. There can be an 'implementation gap' due to a discrepancy between the intervention that is planned and the intervention families actually receive.<sup>50</sup> This can lead to a lower than expected take-up of services.

## Toddler-parent psychotherapy and intervention for depressed mothers – New York

Depressed mothers are a well-known high-risk group. When the condition is severe, it will interfere with the ability to tune into their baby's signals and provide sensitive, emotionally nurturing caregiving. Post-natal depression is linked to an increase in insecure attachment in toddlers; behavioural disturbance at home; less creative play and greater levels of disturbed/disruptive behaviour at primary school, poor peer relationships, and a decrease in self-control with an increase in aggression.<sup>51 52 53 54 55</sup>

Direct psychotherapy with depressed mothers has been shown to increase their capacity to recognise emotional expressions, including negative ones, and to be more accurate in affective language communication.<sup>56</sup> Although this could be expected to improve the quality of attachment, this was not measured. However, another study that compared the effect of toddler-parent psychotherapy between two, randomly assigned, groups of mothers with a major depressive

disorder found that attachment was improved by the end of treatment.

The two groups were further compared with another where the mothers had no mental health problems. This revealed that toddlers of depressed mothers who received TPP showed rates of secure attachment that were no different from those of the non-depressed control group following the conclusion of this intervention.<sup>57</sup> These were mothers with a relatively high level of income, education and family support who may well have been: 'better able to utilise an insight-oriented mode of therapy than women confronted with a multitude of daily living challenges.'<sup>58</sup>

The authors of the study go on to speculate that: 'as mothers become freed from the "ghosts from their pasts" their internal working models became more positive and they were increasingly able to focus on the present, including their relationship with their child.'

## Interaction Guidance – and a Stockholm study

Another approach to infant mental health intervention is provided by *Interaction Guidance*, which does not rely on insight to bring about change in the parent-baby relationship. This technique uses video feedback in order to encourage positive aspects of caregiver-infant interaction, helping parents 'in gaining enjoyment from their child and in developing an understanding of their child's behaviour and development through interactive play experience.'<sup>59</sup>

This form of treatment was specifically tailored to reach families over-burdened with multiple risks, and probably exemplifies the strength-based philosophy intrinsic to all infant mental health therapy more than any other approach. Unlike the psychodynamic approach, it does not explicitly focus on exploring the caregiver's internal representational world of feelings and memories, although such material will be addressed if it arises during the course of work.

A non-intrusive method of family treatment, it has proven to be especially successful for infants with failure to thrive, regulation disorders, and organic

problems and for parents who are either resistant to participating in other forms of psychotherapy, young or inexperienced, or cognitively limited. Interaction Guidance has also been successfully used to improve sensitivity and decrease the amount of disrupted communication between mothers and babies with feeding problems.<sup>60</sup>

The technique of interaction guidance, with its use of video recordings to emphasise responsive and pleasurable mother-infant interactions, can be either clinic or home-based. It is sometimes used in conjunction with, rather than as an alternative to, more psychotherapeutic methods of treatment.

In Stockholm, a child-guidance clinic that uses both approaches to help mothers and babies, with the additional provision of three long group sessions each week, has carried out an in-depth follow-up evaluation of their work. Out of ten randomly chosen mother-infant pairs that were looked at, only one had not made considerable progress during treatment.<sup>61</sup> A combination of intervention methods appeared to achieve the most gains.

# 6 Research in early intervention services

The major review by the American National Research Council (part of the National Academy of Sciences) of many different lines of research carried out on the development of children, summarises a conservative core of replicated findings over 30 years of evaluating the outcomes of early intervention programmes.<sup>62</sup>

To paraphrase slightly, and omitting their extensive references, these are as follows:

- ▶ Well-designed and successfully implemented interventions can enhance the short-term performance of children living in poverty.
- ▶ Such interventions can promote significant short-term gains on standardised cognitive and social measures for young children with developmental delays or disabilities.
- ▶ Short-term impacts on the cognitive development of young children living in high-risk environments are greater when the intervention is goal-directed and child-focused in comparison to generic family support programs.
- ▶ Measured, short-term impacts on the cognitive and social development of young children with developmental disabilities are greater when the intervention is more structured and focused on the child-caregiver relationship.
- ▶ Short-term I.Q. gains associated with high-quality pre-school interventions for children living in poverty typically fade out during middle childhood, after the intervention has been completed; however, long-term benefits in higher academic achievement, lower rates of grade retention (repeating a year), and decreased referral for special education services have been replicated.
- ▶ Extended longitudinal investigations into the adolescent and adult years are relatively uncommon but provide documentation of differences between the intervention and control groups for economically disadvantaged children in high school graduation, income, welfare dependence, and criminal behaviour.
- ▶ Analyses of the economic costs and benefits of early childhood intervention for low-income children have demonstrated medium- and long-term benefits to families as well as savings in public expenditure for special education, welfare assistance, and criminal justice.

## Other research

Recent research into early intervention services by the Mental Health Foundation<sup>63</sup> also highlights generally positive results, although noting caution about the methodological limitations that affect many of the studies in this area.

The Foundation's work discusses the importance of considering the cost of interventions, previous

knowledge of the effectiveness of interventions and of any unexpected negative consequences. It also reconfirms the view that no single approach will have all the answers and that a range of services are needed.

### Toronto infant-parent programme – Watch, Wait and Wonder

In this form of infant-parent psychotherapy, the parent is encouraged to be more directly involved with their child by engaging in playful interactions that follow the lead of the child. The parent is then invited to explore the feelings and thoughts that were evoked by what he or she observed and experienced in the preceding play session.

Allowing the child to be spontaneous can be hard for a parent haunted by 'ghosts in the nursery'; and a defensive infant, who is more used to complying to the pattern of available caregiving in order to extract the maximum available sense of felt-security, can be equally stumped.

The research project set out to compare the effects of traditional infant-parent psychotherapy with *Wait, Watch and Wonder*. A broad range of outcome measures was applied before and after treatment, and again on follow-up six months later. The majority of children referred to this service were insecurely attached. Both forms of treatment were delivered by highly trained clinicians.

It was found that by the end of the intervention, the *Wait, Watch and Wonder* method was associated with a more pronounced move towards secure attachment. The infants in this group also: 'exhibited a greater capacity to regulate their emotions with a concomitant increase in cognitive ability.'<sup>68</sup> Their mothers reported more satisfaction with parenting than mothers in the PPT group and lower levels of depression. Both forms of treatment showed similar positive gains that were associated with a reduction in presenting problems, improvement in the quality of the mother-child relationship, and reduction in parenting stress.

At the six-month follow-up however, the two groups were similar on all measures. The *Wait, Watch and Wonder* group had retained its positive gains while the group receiving parent-infant psychotherapy had 'caught up'. It was concluded that both approaches are helpful, but the effects of *Wait, Watch and Wonder* came about more quickly.



# 7 Conclusions and recommendations

Of key importance, the report also raises the issue of how to overcome barriers to services and to engage and retain families, noting that:

'when making decisions about targeting vulnerable families, it needs to be kept in mind that these same risk factors reduce the capacity of at-risk families to engage or benefit from interventions.'<sup>64</sup>

The use of lay workers working alongside professionals is one of the recommendations made to improve the chances of engaging hard-to-reach families, on the basis that they may have greater knowledge and familiarity with a family's cultural traditions. However confidentiality may be compromised, and it is acknowledged that many families may be reluctant to divulge sensitive personal information, especially if lay workers come from their local area and may share the same network of friends or acquaintances.

individual relationships (not instruction) can change relationships.

## Possible implications for service planning

It appears then, from this review of the research literature, that well-planned and well-funded services for babies and parents at risk can redirect a likely developmental pathway along a new, healthier direction. In particular, the findings suggest that programmes that 'combine child-focused educational activities with explicit attention to parent-child interaction patterns and relationship building'<sup>65</sup> appear to have the greatest impacts – a formula which could easily fit within the remit of *Sure Start*.

The research also suggests that more modest services, based on more generic support and lacking a clear planning of intervention strategies against measurable objectives, are often less effective for at-risk families.<sup>66</sup>

There is also a relative lack of evidence that wide-scale projects that broadly target a general population have much long-term effect. For example, at the end of a review of American Federal and State interventions such as Head Start, it was concluded that:

'A great deal of money was spent on programs that have not been shown to be more effective than doing nothing at all.'<sup>67</sup>

This is a reminder that families do not exist in isolation, and also reminds us that in the end only

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## The value of early intervention

There is a growing body of evidence that demonstrates how early, targeted and strength-based interventions focusing on relationships can bring about positive changes in the emotional environment of vulnerable babies. If the first two years of life are cradled within secure attachment, then the growing child feels good about him or herself, can appreciate the feelings of others and can appreciate their point of view. He or she is able to take full advantage of education, and has inherent psychological resilience to fall back upon in times of stress.

At the other end of the spectrum, the infant with disorganised attachment, who has often suffered abuse or neglect, will become the child who cannot trust relationships, who has no empathy for people or respect for social rules, who disrupts, attacks and tries to dominate what may be on offer in both the family and school, and who might well be seriously vulnerable to later mental health problems.

Without intervention, many difficulties will exponentially increase in the general population over the years, since these patterns of behaviour stand a good chance of being passed on to the next generation as the attachment experiences of infancy cut the template for the caregiving behaviours of adulthood.

Early intervention within the remit of an infant mental health service is an effective way of beginning to break the cycle of insecure attachment as it takes advantage of both the neurological plasticity of the baby and the fluid dynamics of a family in the process of adapting to a new member. Leave it too late and both the structure of the brain and family interactions become increasingly established and consequently harder to change.

Many of the treatment approaches described in the case studies throughout the report, and summarised in the previous chapter, could, theoretically, be offered in any CAMHS setting provided there were suitably qualified staff, since, again theoretically, the age-range for clients begins at zero. Also, in this country we have Health Visitors who are in a unique position to provide a non-stigmatising 'early warning' system for vulnerable babies, as well as having a broad range of specialised skills that could be applied to a mental health provision.

A consideration of the wide range of risk factors that must be addressed makes it clear that, within the shared perspective of attachment theory, a multi-disciplinary team is essential, since the parent-child relationship can be affected by so many different pressures. Without such provision, it is unlikely that the hand on of unfortunate

patterns of parenting from one generation to the next will be either questioned or altered.

However, a key question is whether infant mental health work can or should belong in the same stable as the interventions (and facilities) for older children and their families. This is not just a matter of site, access, noise- and intimidation-level, or the lack of suitably trained clinicians. As Barrows argues, it is:

'only within the context of a service that is dedicated to Infant Mental Health that (the) focus on the parent-infant relationship is likely to be sustained, and to feature as the prime focus of any therapy.'<sup>69</sup>

## Recommendations

The information presented in this report indicates that there is already considerable knowledge about the importance of early brain development on a young child's emotional well-being, with lasting effects throughout childhood and beyond. Similarly, the crucial role early intervention services may play in supporting families with young children, is apparent. It is therefore vital **that this knowledge continues to be developed and effectively disseminated to practitioners in the field and those responsible for policy in this area.**

Running alongside this, it is quite clear that early intervention provision is not the responsibility of health providers alone. Whilst child and adolescent mental health services (CAMHS) will obviously be key players, **the role of other agencies such as social services, and the development of fully developed inter-agency approaches to provision in this field, needs to encouraged.**

For both of these things to happen, it is important that infant mental health is on the current national policy agenda and that attention is given to developing **a clear policy framework which gives full recognition to the importance of addressing the mental health needs of young children.**

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