

**THE IMPORTANCE OF CAREGIVER-CHILD INTERACTIONS FOR
THE SURVIVAL AND HEALTHY DEVELOPMENT OF CHILDREN:
IMPLICATIONS FOR INTERVENTION**

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**Unless specifically indicated to the contrary, this dissertation is the result of
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ABSTRACT

The quality of early infant-caregiver interactions determines the path of an infant's social, cognitive and emotional development. Theoretical and empirical evidence supporting this claim is reviewed, and the implications for early relationship-focussed interventions are considered. The study focuses on infants from birth to three years of age. Developmental psychology research findings are presented, and the role of risk and protective factors in planning preventative interventions are discussed. Recommendations are made for developing a centre-based relationship-enhancing early intervention program for infants and their depressed caregivers. The program is intended for implementation in a rural or peri-urban South African Primary Health Care setting.

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Chapter 1

Introduction

Aims and objectives

This dissertation examines the theoretical and empirical evidence that explains the relationship between the quality of early infant-caregiver interactions and the infant's survival and healthy development. The implications of this evidence for the need and effectiveness of relationship-based early intervention programs are considered. Against this background, recommendations for developing a model of relationship-enhancing and sensitising early intervention program, to be implemented in a Primary Health Care setting in South Africa, are made.

Two basic assumptions provide a point of departure:

- The survival and healthy development of a child is largely dependent on the quality of the relationship between the child and the caregiver.
- Relationship-enhancing early intervention programs can address developmental problems that arise out of troubled early infant-caregiver relationships.

Children depend on warm, supportive relationships with emotionally available caregivers for their survival (Bowlby, 1951; Goldfarb, 1945; Spitz, 1945, 1947; Spitz & Wolf, 1946), and there is widespread consensus amongst child development specialists and practitioners that sensitive and appropriately responsive interactions between caregiver and infants are crucial for the healthy, adaptive development of the infant (Bowlby, 1944, 1951, 1953; Bornstein,

1989; Emde, 1980, 1991; Field, 1994; Stern, 1985) . Whether the relationship in question is between an infant and mother (or mother substitute) in a conventional family setting (Bowlby, 1951), or is non-parental care in an institutional environment, children who do not receive appropriate care are severely compromised in their development (Chisholm, 2000; Erickson, Sroufe & Egeland, 1985; Goldfarb, 1945; Levy, 1937; Lis, 2000; Spitz, 1945). Under some circumstances, and for numerous reasons, caregivers may not meet the developmental needs of the child. This may be due to external, environmental factors, or may be due to factors within the caregiver, such as depression, or other psychopathology. The literature presents a range of interventions that have contributed to meaningful change in cases where caregiving has been maladaptive or inadequate (Chisholm, 2000; Hundeide, 1991; Hunt, Mohandessi, Ghodessi, & Akeyama, 1976; Lis, 2000; Skeels & Dye, 1939).

This dissertation focuses exclusively on interventions that aim at enhancing caregiver-infant interactions, and is limited to the developmental age-group, birth to three years of age. This is both a 'sensitive' period and also, to some extent, a 'critical period' in human social and biological development (Bornstein, 1989), with its own characteristic and unique crises and potential successes. The infant's experiences and development during the first three years of life are considered to exert significant influence on later experiences, and impacts on future mental health and development (Ainsworth, 1989; Baumrind, 1967; Bowlby, 1980; Chisholm, Carter, Ames & Morrison, 1995; Skodak & Skeels, 1949; Spitz & Wolf, 1946; Winnicott, 1958).

The author has used the term '*caregiver*', wherever possible, to denote the person or persons who look after infant and small children. The terms 'mother' or 'maternal', and 'parent' are retained where and when they are central to a concept or theory, or where they are the words

of a specific author. In a sense the term 'caregiver' is inadequate, as it distorts the distinction between long-term family care, with its unique qualities and history of parenting and socialisation, and the activities, limitations and values associated with short term or professional and institutional care. Nevertheless, the term applies in cases where children are cared for by caregivers other than the biological mother. Many children often spend large parts of their day in the care of fathers, aunts, grandmothers, siblings, day-care, hospitals and other institutions, amongst others. The care of small children is seldom limited to one person, as responsive caregiving is frequently supplemented by supportive relationships with others in the social group. In addition, children develop a range of different relationships with others, which may serve to compensate for any deficiency in a primary care relationship. Family members, spouses, and siblings participate actively in the care of infants and small children and are committed to the wellbeing of the child. The quality of early relationships and the care environment in which young children spend their early years is a critical influence on their capacity to develop adequate foundation for later learning, (Bakeman & Brown, 1981; Beckwith & Cohen, 1989; Bornstein & Tamis-LeMonda, 1989; Skodak & Skeels, 1949; Vygotsky, 1978), and for emotional regulation (Calkins, 1994; Campos, Campos & Barrett, 1989; Cassidy, 1994; Field, 1994; Trevarthen, 1983).

- ✗ The care of millions of children orphaned by the HIV/AIDS pandemic in South Africa is a matter of immense concern (Loening-Voysey & Wilson, 2001). In developing countries where the HIV/AIDS is taking its toll on the lives of productive adults, millions of children have either themselves become caregivers or are in need of substitute care either in their communities, or in institutions. Traditionally, a child's basic needs were met by an extended family, which provided a protective and secure environment in which a child could develop (Smart, 2000). The death, from AIDS, of adults under the age of forty who have young

dependant children, has placed increased demands and burdens on the extended family, especially on grandparents and older siblings, to care for these orphans.

✱ At a community and national level there is an ever-growing demand to provide services such as orphanages, health care, and schooling (Loening-Voysey & Wilson, 2001). Children who go without health care and schooling place a costly burden on society in the future. Care alternatives for orphans and vulnerable children affected by AIDS vary. Options include kinship care (McKerrow & Verbeek, 1995; Richter, 2001a), formal adoption (Halkett, 1999; McKerrow & Verbeek, 1995), foster-care (Halkett, 1999; Thomas & Mabusela, 1991), government- or NGO-sponsored cluster foster care (Russell & Schneider, 2000; Smart, 2000), and formal institutional care (Harber, 1999; Neilson, 2000). Serious concern exists over the quality of care that orphans and vulnerable infants and children receive in alternative care, as the implications of millions of poorly adapted children developing into poorly adapted adults has enormous consequences for the country's future. It is argued that the care of orphans and vulnerable children can be enhanced if alternative caregivers, be they family members, friends or staff in institutions, are given support and guidance regarding care that is conducive to the optimal development of the child (Chisholm, 2000; Hunt et al., 1976; Lis, 2000).

Method

The mechanisms by which relationships between caregivers and infant predict the course of the child's development are best explained by discussing some key features of early relationships. These are extracted from an extensive review of the literature on early child development and interactions, and provide guidelines to understanding some of the development pathways that occur. The literature on existing caregiver intervention models is

examined, and the findings are analysed and integrated with a view to making recommendations for developing a suitable model of intervention. This intervention must be capable of being delivered to caregivers in community and/or Primary Health Care (PHC) settings in South Africa, and should accommodate South African needs and constraints. Interventions that are cognisant of the cultural diversity of the SA population require careful consideration. Community ownership of programmes is vital, as programmes that are imposed without prior negotiation with users or recipients are often ineffective. The recommendations follow International Child Development Program (ICDP) guidelines, which are in keeping with World Health Organisation global intervention policy.

Outline of the structure of the dissertation

Chapter two of the dissertation provides a short background to the early relationship research. It describes the observations by Levy (1937), Spitz (1945), and Goldfarb (1945), of the catastrophic effects of institutional care on the affect and health of infants and young children, and some of the simple solutions that contributed to improvement in the children's condition.

Major theories that have informed research on infancy and early childhood are presented in Chapter three. These include Attachment theory, Psychoanalysis, Vygotsky's (1978, 1988) ideas on social mediation, and Erikson's stages of development (1963). Some empirical evidence in support of aspects of Attachment theory is reported. Chapter four deals with the empirical evidence that has accumulated over the past thirty years, regarding infants' early capacities. A brief outline of infant development from birth to three is also given, with specific attention being given to the development of emotion regulation, and the role of the caregiver in mediating that development. New revelations from the field of neurobiology,

concerning the brain's response to the quality of interactions are briefly reported. In Chapter five, risk and protective factors that shape the course of child development are discussed, providing a link between the findings of developmental psychologists and the concepts central to intervention science. Specific risk and protective factors were selected as exemplars and are presented in detail. These set the scene for Chapter six, which introduces the field of early intervention. This chapter is divided into three main sections: In the first section, intervention programs are defined, and the description of two models of interventions and two treatment modalities, are presented. In the second section, the effectiveness, and limitations of various intervention programs and treatment modalities are discussed. The third section is devoted to discussing cross-cultural issues, and to the challenges and consideration of undertaking interventions in developing countries. Chapter seven makes recommendations for developing an early relationship-based model of intervention, suitable for delivery in a Primary health care setting in South Africa.

Chapter 2

Institutionalised Care and Infant Development

The studies of children raised in institutions provide the most compelling evidence of the need for nurturant caregiver-child interactions for healthy development. Revelations, in the 1930's and 1940's, of the devastating effects of institutional care on infant development, drew attention to the significance of early formative caregiving relationships, and the emotional and psychological foundation they provide. Institutional care only provided for infants' physical needs, and infants received no stimulation through regular interaction or through play (Goldberg, 2000; Karen, 1994). Infants' physical development was delayed, with some three-year olds unable to walk. Their cognitive development was severely impaired, and they failed to develop speech (Goldfarb, 1955). Affectively, they were withdrawn and apathetic (Bowlby, 1951; Goldfarb, 1945). Many never vocalised, did not interact with other infants, and were disinterested in their surroundings. Some infants simply failed to thrive, and died, despite having had adequate nourishment (Goldfarb, 1945; Karen, 1994).

Observations of the negative effects of separation from caregivers, and alarm over the ill-effects on personality development of frequent changes of mother-figures and prolonged institutional isolation and understimulation, during the early years of life, initiated a great deal of clinical and empirical research on the developmental significance of the infant's early relationships. The contributions of Bowlby (1951, 1969, 1973, 1980), Goldfarb (1945, 1955), Levy (1937), Provence & Lipton (1962), Robertson (1952), Skeels & Dye (1939), Spitz (1945, 1960), Spitz and Wolf (1946), formed the starting point of caregiver-infant interaction research.

The effects of deprivation of sensitive, warm, responsive interaction on children's later development has been well documented (Bowlby, 1951; Chisholm, 2000, Goldfarb, 1945; Spitz, 1945, 1947). Levy (1937), studying a group of slightly older children who had had no maternal care in their early years, and who failed to develop bonds with subsequent adoptive parents, found that they shared several key features: they had multiple caregivers, but not stable relationships, having all been moved from one foster family to another; instead of being adopted at birth or soon thereafter, they were adopted after several years of foster or institutional care; they displayed superficial and indiscriminately affectionate and friendly behaviour, but were apparently indifferent; they often displayed incorrigible behaviour problems, e.g. sexual aggressiveness, fantastic lying, stealing, temper tantrums, immature or infantile demands; they failed to make friends; they appeared to lack self-pride. Levy concluded that they were suffering from a form of emotional starvation that he called "primary affect hunger", a deficiency disease of the emotional life, which he likened to a deficiency of vital nutrients within any developing organism (Karen, 1994).

Infant observation, as a research method, was pioneered by Rene Spitz (1947), who studied children in institutions, and recorded on film the devastating effects on developmental competence, health, and even survival, of infants subjected to lengthy isolation and understimulation. He described how separation from caregivers, and placement in institutions that only offer rudimentary care, triggers the development of an acute impairment of an infant's physical, social and emotional development that he called 'anaclitic depression' (Spitz & Wolf, 1946). The results of Spitz's work were seen in changes in adoption procedures, and new hospitalisation approaches that avoid lengthy separations from caregivers.

John Bowlby's work on separation and bereavement provided a conceptual framework for the empirical studies of early deprivation. In his observations of children who were separated from their caregivers, or who lost them through death or abandonment, he hypothesised three stages of reaction (1960, 1980, 1982). Firstly, the infant or child goes through a '*protest phase*' characterised by crying and intense yearning and searching for the lost caregiver. During the '*despair phase*' the infant enters a stage of hopelessness regarding the caregiver's return, crying intermittently, and finally withdrawing into a state of apathy. In the '*detachment phase*' the child begins to relinquish some emotional attachment to the absent or lost caregiver. These were later extrapolated to the understanding of bereavement and mourning at all stages of life (Holmes, 1993).

In 1951, the World Health Organisation, which has fostered a longstanding commitment to child health and child development across biological, psychological and social dimensions, assigned Bowlby to produce a monograph on the mental health of homeless children in post war Europe. He drew on reports from practitioners and researchers in Europe and the USA, and his review incorporated accounts, dating back to the turn of the century, of infants under 6 months of age who had had lengthy stays in institutions. The outstanding features of these infants were that they were listless, emaciated, relatively immobile, quiet, unresponsive to stimuli, appeared unhappy, had poor appetites, poor sucking responses and erratic sleep patterns, failed to gain weight properly, had frequent bowel movements, and were prone to febrile episodes. (Bowlby, 1951). The research for this monograph, which proved to be hugely influential in effecting major changes in infant health care, led Bowlby (1951) to conclude that, to grow up mentally healthy "the infant and young child should experience a warm, intimate and continuous relationship with his mother (or mother substitute) in which both find satisfaction and enjoyment" (p. 57). His findings provided consolidation of the

ideas that led to his formulation of attachment theory, which has provided contemporary developmental research with a major theoretical framework for understanding children's early social development as well as psychopathology across their life span.

The malleability of early human development and the extent, to which these above-mentioned negative sequelae could be ameliorated, was explored in a corresponding group of studies. In a seminal experiment by Skeels and Dye (1939), changes in living arrangements and strategic increases and variations in levels of stimulation for infants and mentally retarded adolescent girls, demonstrated that the adverse effects of isolation and understimulation could be reversed. The infants, who were also judged to be 'retarded', were 'raised' by the adolescent girls. Two and a half years later a follow-up assessment showed an increase in the cognitive functioning of the 'retarded' infants (an average increase of 32 IQ points). Twenty year later it was found that all of the infants had grown up to be independent adults had completed an average of 12 years of schooling, and four of them had received university education. The success of the work provided the support for efforts to aid children's development through early intervention.

Even recent studies of children raised in Eastern European orphanages, point to institutionalisation at an early age, and length of time spent under such conditions, as primary determinants of later psychopathology (Crittenden & Claussen, 2000; Marcovitch et al., 1997). All of these studies report varying levels of retardation evident in all areas of the children's development, especially language, social, emotional and intellectual skills. Under these conditions, infants' needs for psychological and physical contact are frustrated by the limited daily contacts with, and frequent separations from, institutional staff, who are occupied with numerous other duties (Lis, 2000). Chisholm (2000) reports child-to-caregiver

ratios of between 10:1 to 20:1, in a contemporary Romanian orphanage. Children were reported to spend up to 20 hours a day in their cribs, with the only human contact or interaction occurring when minimal physical care was administered.

Furthermore, infants in institutional care are at increased risk of serious infectious illness, language delay (Tizard & Rees, 1974), and other medical and psychosocial sequelae (Chisholm, 1998; Levy, 1937). Children raised in institutions in their first year of life and who are thus deprived of an intimate and stable nurturant relationship are found to be insecurely attached (Chisholm, 1998; Landau, 1989; O'Connor, Bredenkamp & Rutter, 1999), and manifest socio-emotional disorders and personality dysfunction (Chisholm, 1998; Lis, 2000).

However, as with the early successes reported in the Skeels and Dye study, Hunt et al. (1976) reported improvements that occurred in the mental and physical status of the infants, and in the sensitivity of the caretakers, in an orphanage where the child-to-caregiver ratio was reduced from 35:3 to 10:3, and institutional instructions to avoid attachments to children, were ignored. The dramatic changes were due to a simple interaction intervention where the caregivers were required to be more responsive to the needs of the children when these were expressed, to show affection and to play with them, and to imitate their vocalisations. The caregivers developed a strong emotional attachment to the infants and their sensitivity to the children's initiatives increased. Chisholm (2000) reports two case studies of infants who had spent the first three years of their lives in institutional care, who were able to establish attachment relationships. These positive results were not easily achieved, but rather were in response to intense efforts on the part of sensitive and emotionally aware and available adoptive parents.

Chapter 3

Theories

Numerous schools of thought have attempted an explanation of the mechanisms that link optimal emotional, cognitive and social development of young children with the quality of early relationships they experience. The research on the links between early relationships and child development has largely been informed by Attachment theory, Psychoanalysis (Object Relations theory, in particular), and the work of Lev Vygotsky.

Attachment Theory

As an alternative to Freud's motivational theory, John Bowlby (1969) and Mary Ainsworth (1973) proposed Attachment Theory to describe the bond that develops between infant and caregiver. It is a "way of conceptualising the propensity of human beings to make strong affectional bonds to particular others and of explaining the many forms of emotional distress and personality disturbance, including anxiety, anger, depression and emotional detachment, to which unwilling separation and loss give rise." (Bowlby, 1980, p. 201). In some respects attachment theory could be understood as a type of contemporary psychoanalytic or object relations theory (Eagle, 1995), as Attachment Theory retains or includes numerous psychoanalytic ideas and concepts (e.g. internal working models and mental representations), but dispenses with arcane notions such as psychic energy and drives, and adopts principles from ethology and control theory (Holmes, 1993). Furthermore, Attachment theory rests on direct observation of caregiver-child interaction rather than purely on reconstruction of past occurrences, as was traditionally the case in Psychoanalysis. Therefore, concepts central to attachment theory are more amenable to empirical investigation than psychoanalytic notions, and are compatible with neurophysiology and developmental biology.

The secure-base phenomenon is at the heart of attachment theory, and the person whom the child uses as a secure base is defined as the 'attachment figure' (Ainsworth, 1982). The use of the attachment figure as a secure base is characterised by a balance between attachment and exploratory behaviour that has, as its predictable outcome, the maintenance of a certain access or degree of proximity to the caregiver. Drawing on ethology and Darwinian theory of evolution, Bowlby argued that attachment behaviour is a product of the species-specific, phylogenetically predetermined control system that develops within the context of caregiver-child interactions, and as a consequence of these interactions (Bowlby, 1969). Human infants, like many birds and other mammals, have a number of innate alerting behaviours that promote proximity and ensure contact with the caregiver/mother figure (Bell & Ainsworth, 1972). These 'attachment behaviours' involve 'signalling', such as crying, vocalising, smiling and gesturing, all of which stimulate the caregiver to move into closer range or contact with the infant, and active behaviours such as crawling, grasping, following and clinging, by which the infant himself achieves and maintains proximity and contact (Ainsworth, 1967; Bowlby, 1958, 1969). Secure base behaviour is exhibited in children of all cultures, though the patterning of secure-base behaviour differs between cultures (Posada et al., 1995).

The development of an attachment is not an instantaneous event but a process that develops during the first year of life (Ainsworth, 1964). From about six months of age the infant begins to display a sharply defined preference for the primary caregiver, accompanied by a striking decline in friendliness to others. The caregiver's departure is consistently met with protest and distress, which Ainsworth interpreted as indicating that the infant had formed a representation of the caregiver (1964). At this stage the baby is usually moderately mobile and engages in exploratory behaviour, using the caregiver as a secure base from which to investigate the environment. This phase corresponds with the emergence and development of

object permanency (Piaget & Inhelder, 1969), by the end of which an infant will seek out an object even if it is not within his range of vision. By 12 months, the infant usually begins forming attachments to other significant figures. This is also in keeping with what Erikson called the stage of basic trust versus mistrust (1963). In Erikson's view, the quality of the child's relationship with the caregiver is critical for the development of trust, and a balance or synthesis between trust and mistrust is essential for confident negotiation of new experiences.

Strange situation

In her longitudinal naturalistic observations first with Baganda infants (1967) and later with middle-class American babies (1973), Ainsworth observed striking individual differences in the way in which attachment behaviours were organised and directed towards an attachment figure. On the basis of these studies, Ainsworth proposed the existence of a secure-insecure dimension to describe the quality of an infant's attachment relationship. Ainsworth and Wittig devised a system for assessing the attachment security of infant-caregiver relationships, called the Strange Situation (Ainsworth & Wittig, 1969; Ainsworth & Bell, 1970). Bowlby's concept of the protective function of attachment, and Ainsworth's interests in the relationship between attachment and exploratory behaviours, and how the attachment figure is used as a secure base for exploration, provided the rationale for the structure of the session. The Strange Situation includes a number of features used in naturalistic observation, and consists, ideally, of 8 three-minute, increasingly stressful episodes interspersed with opportunities for recovery. The infant's attachment behaviours are likely to be triggered by perception of danger or stress, while the interesting toys in the observation room tempt exploration, providing an opportunity for the child to seek a balance between exploration and attachment. It also allows assessment of the child's use of the attachment figure in coping with stress. Initially three patterns of attachment were identified (Ainsworth, 1964;

Ainsworth & Wittig, 1969), each describing the infant's proximity-seeking, contact maintenance, avoidance of the caregiver, resistance to comforting, searching behaviour during separation, and distance interaction using eye-contact and vocalising with caregiver (Goldberg, 2000). A fourth insecure type, namely disorganised attachment, was added at a later stage (Main & Solomon, 1980).

Attachment Theory holds that secure attachment increases the likelihood of optimal adaptation and functioning. Insecure attachment of any type is associated with a higher risk of malfunctioning in the socio-emotional domain during the pre-school years (Bretherton & Waters, 1985; Sroufe, 1988), and well into adolescence and early adulthood (Carlson, 1998; Hamilton, 2000; Main & Hesse, 1990). More empirical evidence linking secure attachment with healthy adaptive development is discussed later in the dissertation.

Internal working models

Bowlby's attempt to remould the psychoanalytic concept of an 'internal world', is presented in his notion of an 'internal working model', which is similar to Psychoanalytic Theory's 'internalisations of interactions that have been generalised' (Stern, 1985), and Cognitive Behaviour Therapy's 'acquired basic assumptions' (Beck, Rush, Shaw & Emery, 1979). It is a mechanism by which attachments become stable and exert an influence on future behaviour and relationships (Bretherton, 1987). Through repeated patterns of interactive experiences, the developing child builds up a set of relatively fixed representational models of self and others with which to predict and relate to the world (Bowlby, 1980; Bretherton, 1990). A securely attached infant will construct an internal working model of a responsive, reliable, appropriately emotionally available caregiver, and also a sense of self, characterised by worthiness of love and attention. An insecure anxiously attached infant's internal working

model will be built on his efforts to cope with a caregiver who is inattentive, rejecting, or frightening, and whose availability is unpredictable. These models are believed to determine one's interpersonal style of relatedness in adulthood.

Numerous papers and studies of the cross-cultural validity of Attachment theory have been conducted (Grossmann & Grossmann, 1990; Main, 1990; Sagi, 1990; Tomlinson, 1997), and have produced conflicting and inconclusive results (van IJzendoorn, 1990; van IJzendoorn & Kroonenburg, 1988), and have raised doubts about the generalisability of the frequency of attachment patterns across cultures. Grossmann and Grossmann (1990) conclude that cognisance needs to be taken of both universal and culture-specific aspects when investigating attachment across the lifespan. In the South African context, studies are needed to understand the implications of multiple caregiving for attachment patterns and strange situation behaviour (Tomlinson, 1997).

Psychoanalysis

The basic hypotheses of classical psychoanalytic theory have undergone major revision since Freud (Mitchell & Black, 1995), but several fundamental concepts remain in contemporary psychoanalytic thinking, e.g., the construct of a dynamic, yet structured, unconscious, the role of defence mechanisms in protecting the ego, and the basic tenets of psychic determinism. The contribution of Psychoanalysis and Object Relations theory to child development studies is unique in its hypotheses about internal psychological processes (Fairbairn, 1952; Freud, 1905, 1915, 1923; Klein, 1952; Ogden, 1986, 1989). The Freudian infant's behaviour is driven by libidinal instincts that are predominantly sexual in nature (Freud, 1915). The first years of life are divided into stages of psychosexual development, each with its own set of ego defence mechanisms (Freud, 1905), and the infant's relationship to the mother is

secondary to need gratification. Reduction of erogenous tension is the dominant motivation behind most behaviour. Although Freud did not dismiss the importance of early relationships, the resolution of the triadic 'oedipal complex', around five to six years of age, was regarded as the major developmental event.

Object relations theory

In a major shift in focus from Freudian drive-theory, Object Relations theory proposed that the establishment of relationships, or connectedness with an 'other', is the fundamental motivation in infancy, and that the libido is 'object-seeking' rather than 'pleasure-seeking' (Cashdan, 1988; St Clair, 2000). The shift away from Freudian drive theory toward object relations in psychoanalytic theory between the 1930's and 1970's centred around the work of Melanie Klein, Donald Winnicott, Ronald Fairbairn and Wilfred Bion. They all represent significant milestones or developments in the construction of Object Relations theory, and each presented innovative hypotheses about the development of object relatedness.

According to Object relations theory, the relationship with the caregiver facilitates the development of psychic structure, essential for psychological well-being, and it is in the early relationship with the caregiver that the mental representations, that determine one's interpretation of one's experiences and of the world, will emerge. Furthermore, the impact of actual or anticipated separation from or loss of the 'object' (caregiver or mother) is central to the development of personality. The views of Melanie Klein and Donald Winnicott are discussed in more detail in the next paragraphs.

Melanie Klein

For Freud, the core of neurotic conflict is the resolution of the oedipal phase during which the five or six year old battles with intense and problematic incestuous wishes. Melanie Klein was interested in processes that occur even earlier in infancy. Klein in her analytic work with

children proposed the concepts of the paranoid/schizoid and the depressive positions, in an attempt to explain the development of mental representations of self and other in infancy. These 'positions' which co-exist with one another throughout life in a dialectical relationship (Ogden, 1988), constellate during the first and second quarters of the first year of life, respectively, and are based on hypotheses about experiences and fantasies in infancy. Each 'position' represents distinct mode of psychological organisation that decides the way in which meaning is attributed to experience.

From birth to about four months the infant's anxieties are paranoid in nature. The infant's experience is dominated by destructive impulses and persecutory and sadistic anxieties, and the ego fearing obliteration, undergoes a splitting process to deal with the dread of annihilation. There is no distinction between self and other, and the infant relates to parts of the object (St Clair, 2000).

During the fifth month of life, when the infant has increased cognitive capacity to relate to 'whole' objects, a new, more mature position constellates. In this, the 'depressive position', the infant begins the process of distinguishing self from the loved object, and begins to develop the capacity for concern, guilt and reparation (Klein, 1957). Whereas the infant defended against her own destruction in the paranoid-schizoid position, she now has to contend with not harming, or having harmed, the good object on whom she is totally dependent.

Klein's theory of internal object relations (Klein, 1932, 1952) remained linked to drive theory, retaining Freud's concept of a death instinct in her understanding of constitutional

aggression, hatred, sadism and other forms of badness, which she believed tormented infants from birth. In the first months of life, projection and introjection operate as the primary defenses, which enables the psyche to tolerate this bombardment (Cashdan, 1988). In Freudian terms the task of infancy is socialization and the taming of one's animal-like libidinous instincts, where as for the Kleinian infant, the task is the amelioration of frightening bombardment by intense needs and overwhelming constitutional aggression.

Winnicott

Whereas the Freudian and Kleinian infant is engaged in a lone struggle with its own instincts and persecutory fantasies and anxieties, Winnicott presents an infant whose existence cannot even be contemplated without a caregiver. Winnicott stated that there is 'no such thing as a baby', and that whenever one finds an infant, one finds maternal care (1958, p.99). It is not care in itself that is crucial, but the emotional quality that accompanies the care that is stressed. "A baby can be fed without love, but lovelessness as impersonal management cannot succeed in producing a new autonomous human child", (Winnicott, 1971, p. 127).

Winnicott differed from orthodox Kleinians in that he focussed on the infant and caregiver's subjective experience of relatedness and interaction, (rather than the infant's own destructive fantasies), using evocative descriptions of their intimate exchanges. He described the caregiver's attitude toward the infant as "primary maternal preoccupation", a period during which the caregiver suspends her own needs and subjectivity to become the medium for the development of the infant's subjectivity. This is a period of heightened caregiver awareness, to the emotional expressions and behaviours of the infant. It is crucial that the caregiver be there when needed, and that she recedes when she is not. Acknowledging that the caregiver cannot stay in this state indefinitely, she gradually and incrementally 'fails' the infant, but

this is compensated for by the infant's maturation, and it is in this way that the caregiver's failure slowly and safely introduces the infant to the reality of a shared world. According to Winnicott's theory of multiple self-organisation, which includes a 'true' self and a 'false' self, the true self develops in the context of a responsive 'holding' environment provided by 'good enough mothering' (Winnicott, 1965). Winnicott said that a 'good enough mother' is one who meets the omnipotence of the infant and to some extent makes sense of it (Winnicott, 1965), and that a mother who can give herself over, for a limited spell, to this her natural task, is able to protect her infant's 'going-on-being' (Winnicott, 1965). When good enough mothering is not possible, a false self emerges, which monitors and adapts to the conscious and unconscious needs of the caregiver, at the expense of the child's own autonomy and subjectivity (1965).

The quality of the infant's experience from the earliest months of life is crucial for the emergence of personhood. It is the environment that the caregiver provides, (rather than the child's instinctual conflicts) that determines the outcome. A 'good enough' mother regards her infant as potentially a whole person, even though the infant is not yet functioning as a whole person, and in this way the baby is 'contained' by the mother's imagination, until the infant, over time, begins to develop the capacity to hold and contain himself. It is a physical and psychic space in which the infant is protected without even knowing it (Holmes, 1993). The frequently used Winnicottian term, 'holding', refers to the physical cradling of the infant in the caregiver's embrace, and to the use of her voice, but also to a form of psychological containment provided by the caregiver attitude and state of mind. Caregiving is characterised by warmth, empathy, sensitivity and attention on the part of the caregiver, that is at first physical, but which, in favourable conditions, becomes a psychological care-taking that gives rise to a sense of being understood, respected and validated.

Lev Vygotsky and Social Mediation

Vygotskian theory holds that social interaction plays the central role in the development of cognition. Learning and development is a social and collaborative activity, and social activity is internalised as a mechanism of development. Vygotsky (1978) stated:

"Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals." (p.57).

Intramental, or individual, functioning emerges from the mastery and internalization of social processes, or from that which occurs between people on the intermental plane. Central to Vygotsky's psychology of the evolution of a child's behaviour is the concept of mediation (Karpov & Haywood, 1998), more specifically mediation in the form of guidance from an adult. He proposed the "zone of proximal development" (ZPD) as a potential level of cognitive functioning which the child can achieve with the guidance and collaboration of a more experienced, perceptive and responsive adult. The child achieves a greater range of skills with adult guidance or peer collaboration than can be achieved alone, and the shared problem solving activity of child and adult defines the primary framework for cognitive growth.

All mental processes have social origins (Feinman, 1991; Wertsch & Tulviste, 1992), and the development of higher mental processes originate in human interaction (Vygotsky, 1978).

Meaning is constructed and transmitted through language, culture, signs and symbols, and the mediation of competent others. Children imitate culturally patterned activities carried out by

their elders, and by re-enacting these real situations, they internalise the implicit rules of the culture in which they are embedded. In infancy and early childhood in particular, the mediatory role of the caregiver sensitively compliments and extends the child's capacity, by providing a framework of linguistic and situational supports congruent with the child's efforts and errors. An infant's innate receptivity enables the adult to provide meaning and structure through organizing, arranging and simplifying tasks, sequencing and ordering activities, presenting opportunities, limiting access, managing focus, and incrementally transferring responsibility to the child (Feinman, 1991).

Chapter 4

Infant and early childhood development

Introduction

Without knowledge of theoretical and recent empirical evidence it is difficult to conceptualise the pathways and mechanisms by which early relationships and interactions impact on the survival and healthy development of infants and small children. Clarification of some of these links will be attempted by means of a review of empirical findings regarding the social, perceptual and cognitive capacities of infants, together with new evidence and advances in the neurobiology of early experience, and developmental changes that occur in the infant and in early interactions during the first year of life.

Developmental Research

Data regarding infants' cognitive, social and emotional capacities, as well as their ability to initiate interaction, and communicate in a reciprocal fashion, has dispelled the view of the infant as a helpless, passive, incompetent and inadequate organism (Thoman, 1979). Some relationship-enhancing early intervention programs indicate that much of what has been learned about intersubjective processes can be applied in treatment and interventions, to sensitise and enlighten caregivers about the course of infant development and infant capacities (McDonough, 1985, 1995; Trevarthen & Aitken, 2001). Trevarthen & Aitken (2001) are of the opinion that intervention programs would benefit from a greater focus on using early interpersonal interaction with significant caregivers to facilitate and remediate early development problems, through intersubjectively mediated learning.

Technological developments in videotape technology and the creation of behavioural taxonomic systems have made new insights into the micro-components of caregiver-infant interactions possible. Researchers utilise a range of coding systems and rating scales that distinguish age, and differentiate language and socio-emotional communication, the reliability and validity of which have been verified (Baird, Haas, McCormick, Carruth & Turner, 1992; Bakeman & Brown, 1977, 1981; Moustakas, Sigel & Sachalock, 1956; Price, 1983).

Infants' Capacities for Recognition and Discrimination

Infants are not impervious to the behaviour of others in their environment. Research has produced evidence that infants have acute perceptual and discriminatory capacities, are sensitive and alert to changes in their environment, and depend on environmental input for their development (Murray, 1985; Murray & Trevarthen, 1986; Tronick, Als & Brazelton, 1980). Infants possess specialised innate "human-environment-expectant" social regulatory and intersubjective functions (Trevarthen & Aitken, 2001), implying a phylogenetically determined need to interact and communicate with other humans in order that optimum development and socialization take place. Infants' capacity for recognition and discrimination is already evident during the first two months of life. Infants prefer human faces (Fantz, 1963; Spitz, 1945), and respond differentially toward humans and inanimate objects, and their innate preference for people (as opposed to objects) is the basis of Trevarthen's proposal of intersubjectivity as an innate pattern of communication in human beings (1980).

Infant Sociability, and Capacities to Initiate Mutual Interaction

Studies using micro-analyses of small sections of videotape of the face-to-face interactions among non-clinical samples of caregivers and their babies, using coding schemes that are

sensitive to complex interactive processes (Sawin, Langlois & Leitner, 1977; Stern, 1974), indicate unequivocally that infants are active participants in relationships. Numerous researchers (Bateson, 1975; Brazelton, Tronick, Adamson, Als, & Wise, 1975; Fogel, 1977; Fogel & Thelen, 1987; Tronick et al., 1980; Weinberg & Tronick, 1994) report that mothers and infants mutually regulate one another's interests and feelings during interactions. They take turns in a cyclic sequence of smiling, mutual gaze and visual exchange, with both caregiver and infant attempting to match each other's direction of affect (Trevvarthen & Aitken, 2001). These exchanges are elicited by mothers' and fathers' intensely sympathetic and highly expressive behaviour towards a captivated infant who clearly responds with active and immediate appreciation of the adults intentions (Trevvarthen, 1980). Trevvarthen & Aitken describe infants as naturally sociable (2001), "engaging the interest, purposes, and feelings of willing and affectionate parents", which serves "to intrinsically motivate companionship, or co-operative awareness " (p. 4). They possess an innate capacity for, and propensity to initiate interactions, as revealed in the 'still face' perturbation experiment described below. Caregiver-infant interactions are bi-directional (Bell, 1979) and are characterised by synchrony and reciprocity (Brazelton, 1974; Tronick, 1989). Infant-caregiver communication displays timing and expression similar to that seen in informal adult conversational interactions.

Infants' Capacities to Recognise Emotions in Others

Infants are acutely sensitive to emotions in others, and are confused and distressed by untimely termination of communications. They actively engage in various strategies to re-establish interaction, evidenced in perturbation experiments in which caregiver-child interaction is interrupted or distorted. Studies using the 'still' or 'blank' face, or double television replay techniques (Murray, 1985; Murray & Trevvarthen, 1986; Tronick, 1989;

Tronick, Als, Adamson, Wise, & Brazelton, 1978), confirm that at 3 months, an infant is emotionally aware of, and engages with or responds to, a mother's contingent and emotionally appropriate or inappropriate behaviour. In one such perturbation experiment, a mother is asked to maintain eye contact but to cease her interaction, and to avoid responding to the infant - the "still face" condition (Cohn & Tronick, 1989; Murray, 1985; Murray & Trevarthen, 1986; Tronick et al., 1978). The infant's first strategy usually involves smiling, vocalising and gesturing in an attempt to engage the caregiver's attention and to draw her into the interaction. These behaviours are often interspersed with sober stares at the caregiver. When these strategies fail to re-establish the expected rhythmic reciprocal interaction, the infant becomes visibly perturbed, employing jerky movements, gaze aversion, withdrawal, signs of distress and self-stimulation e.g. yawning, sleepiness, and fretfulness. The infant is initially puzzled when the caregiver reverts to their familiar interactional style, but they soon resume their usual 'interactional tempo' (Brazelton et al., 1975). Infants' responses during perturbation experiments are evidence of their extreme sensitivity to the caregiver's responsiveness, and that infants expect contingency in human interaction. These findings are of particular interest to those who require strategies to intervene with infants of mothers who have postnatal depression. Depressed mothers express flat affect, lack of pleasure, and poorly timed responses that do not match those of the infant (Field, Healy, Goldstein & Guthertz, 1990). Young infants who attempt to initiate communication with a depressed mother are met with unsympathetic and inappropriately timed maternal behaviour (Field, 1992; Papousek & Papousek, 1997). As in the perturbation experiments described above, the infants are reported to become distressed and avoidant (Field, 1992).

Language Acquisition

The acquisition of language is an indispensable condition of an infant's integration into culture (Papousek & Papousek, 1997). It is the view of numerous developmentalists that early social interactions provide the passage into the complex process of language acquisition and development (Nelson, 1973; Trevarthen, 1980, 1987; Vygotsky, 1988). The infant's innate primary intersubjective interactions with significant others, forms the foundation for language acquisition. Meaning in communication seems to evolve in an intricate and complex interplay of factors. The earliest meanings are communicated to the infant non-verbally through proto-dialogues or preverbal conversations, characterised by reciprocal visual exchanges, expressions and vocalisations, typifying caregiver-infant interactions during the early months of life (Bretherton & Bates, 1979; Stern, 1977). Stern (1985) supports the notion that the baby does not understand the words, but the sound, the rhythm, the intonation, (affect attunement), and that the words take on meaning as signifiers, referring to things and meanings beyond themselves (associations). Caregivers attribute meaning to infants' gestures, vocalisations and actions, and the dyad both alternate their utterances in what Bateson called 'proto-conversations' (1975).

The Neurobiology of Early Development

Advances in neuro-imaging that reveal activities and changes in the structure, chemistry and function of the brain are providing evidence of the effects of interactions on the physical structure and working of the brain. The brain is understood to be both experience-expectant and experience-dependent for its optimal development. The expected experience produces patterned activity of neurons, presumably targeting those synapses that will be selected for preservation (Nelson & Bloom, 1997). Numerous demonstrations in a variety of species have shown that positive and negative experiences alter both the structure and chemistry and

thereby the functioning of the brain. In one example, it was demonstrated that rats raised in isolation perform more poorly on cognitive tasks than those raised in an enriched environment. Enrichment of the environment resulted in cellular level changes in the rats' brains, e.g. increased thickness of some regions of the dorsal neocortex, together with more synapses per neuron and improved synaptic connections. In addition, there was increased blood and oxygen provision due to improved capillary branching (Greenough & Black, 1992; Nelson & Bloom, 1997). Rats raised in isolation display neurochemical and behavioural abnormalities that indicate possible mesolimbic dopamine overproduction. (Nelson & Bloom, 1997). Similarly, neuroanatomical anomalies and abnormalities are seen in brain regions that are associated with emotional and/or cognitive behaviour in monkeys raised from birth in isolation. The significance of these findings lies in the assumption that they can be extrapolated to the study of human brain development, and that human brain anatomy responds in a similar way to environmental conditions.

Development and Change from Birth to Three Years of Age

From birth to three years of age, development undergoes many changes especially in the infant's capacity for self-regulation, self-awareness, and also in the nature of caregiver-infant interactions (Cicchetti, Ganiban & Barnett, 1991). During the first three months of life, the infant shows intense interest and pleasure in the caregiver and in direct face-to-face communicative exchanges with her (Fantz, 1963; Lewis, 1969; Wolff, 1965). Mutually enjoyable eye contact results in the dyad entering into a symbiotic state of heightened positive affect. Mutual eye contact is implicated in the development of the right hemisphere of the brain, specifically the maturation of limbic areas in the cortex that are involved in socioemotional functions (Schore, 1994). The absence of mutual gaze or sparseness of eye contact, seen in dyads with severe interactive failures, is referred to as 'proximate separation'

(Schore, 1994). This occurs when a mother refuses to make eye contact with a distressed infant, precluding opportunity for mutual social referencing exchanges, and the affective component of eye contact.

The regulation of arousal is a major developmental task in infancy and early childhood (Cicchetti et al., 1991). During the first three months of life, the infant mobilises innate self-regulatory capacities comprising a number of motoric reflexes (Cicchetti et al., 1991) such as non-nutritive sucking (Kessen & Leutzendorff, 1963), head-turning, hand-to-mouth movements, making it possible for the infant to achieve a degree of physiological equilibrium independently of the caregiver (Kopp, 1989). In early infancy, expression of affect is driven by the infant's internal states, and the innate self-regulatory systems are limited in their capacity to modulated negative arousal. Caregivers therefore assist in the modulation of negative internal states, (Bowlby, 1969; Feinman, 1982; Klinnert, Campos, Sorce, Emde & Svedja, 1983), in various ways, e.g. through face-to-face interactions (Kopp, 1989), touch and voice. Field (1985) argues that the mother (caregiver) acts as an optimal stimulator and arousal regulator. An infant's emotion regulation develops in the context of caregiver-infant interactions, and the physical and emotional unavailability of the caregiver contributes to dysregulation (Field, 1994), which manifests itself in affective disturbance, and alternations in the infant's motor, physiological, and/or biochemical activity levels. Infants' states of arousal and distress are immediately responsive to maternal stimulation, e.g. from the breast, or the voice, touch, smell and even eye contact with the mother. Caregivers help an infant establish behavioural and physical organisation by reading infant signals and providing stimulation, the specific form, intensity, variability and contingency of which provides modulated arousal so that the infant remains behaviourally and physiologically organised. This state of behavioural and affective co-ordination, is referred to as attunement, affective-

matching, synchrony, or entrainment (Field, 1984). Daniel Stern described it as a 'matching of inner states' which he termed 'affect attunement' (1985).

Affectionate vocalisations by adults toward infants, called 'motherese' or infant directed speech, are characterised by voicing qualities and defined rhythmic and melodic features (Trevvarthen & Aitken, 2001). Infants are sensitive to, and selectively attracted to, the emotional narratives carried in human voice, and respond with synchronous rhythmic patterns of vocalisations, body movements and gestures, which complement the musical quality of the mothers expressions (Fernald, 1985; Stern, Spieker & McKain, 1982). Infants are acutely sensitive to the mother's vocal patterns (DeCasper & Fifer, 1980; DeCasper & Spence, 1986), especially the musical qualities in the mother's voice.

From about four months of age the infant becomes interested in objects and events in her social surroundings, increasingly breaking visual contact with the mother, to explore, handle or mouth objects. Expression of affect becomes more refined as the infant becomes more aware of the responses her behaviour elicits from caregivers. The infant begins to adapt behaviours to those of the caregiver. Caregivers commonly become more playful at this stage, eliciting amusement and laughter from the infant, which in turn encourages more play from the caregiver. Repetitive songs and nursery rhymes used by caregivers are common in all cultures as a form of play in preparation for the emergence of language.

The maturation of neurological inhibitory systems, increased cognitive development, and parental socialisation, all contribute to the infants growing ability to regulate emotions and differentiate the expression of affect. Neurological and cognitive growth promote affect differentiation. The caregiving environment provides the context within which the development of neurobiological inhibitory systems and cognitive abilities develop, and are expected to be influenced by the nature and quality of caregiver-infant interactions.

Caregivers who are affectively attuned to their infants, aid the development of psychological self-regulation by helping them cope with increasing amounts of tension (Sroufe, 1979; Stern, 1985).

By nine months of age a new form of awareness is evident in the infant's capacity to combine communication about activity with direct dyadic interaction. During this stage the concept of object permanency develops, and the infant begins to engage in co-operative activities with the caregiver, acquiring the skill of joint attention. The infant is willing to learn from the caregivers' example as she names objects and actions for the infant. This is also the time that attachment relationships become firmly established and differentiated. The interactional history of the preceding months defines the infant's affective relationship with the caregiver, and the pattern and quality of this relationship is thought to reflect the style of emotion regulation that has developed out of the infant's history of distress remediation and emotional synchrony with the caregiver. Caregivers' responses directly influence child behaviour (Ainsworth, 1992), and infants become more aware of the effects of their behaviours on their caregivers, during the last quarter of the first year of life. They also begin to 'cross-check' with caregivers when confronted with unfamiliar situations or uncertain conditions in a process called "social referencing".

Language makes a clear emergence toward the second year of life, and the co-operative potential of caregiver-child interactions is greatly enhanced as the possibility of shared meaning increases, and the beginnings of cultural awareness and participation are possible. In summary, infants are active participants in interactions from very soon after birth, and their rapid development is mediated by caregivers. Interventions need to be consistent with our current understanding of the nature of infants need of, and participation in, early relationships.

Risk and Prevention

Introduction

The central concern of developmental psychopathology is predicting maladaptive patterns of development and identifying the mechanisms by which psychosocial and biological factors influence them (Fonagy & Higgitt, 2000). The field of early intervention faces similar challenges in selecting appropriate risk or protective factors as targets of prevention or treatment. Fonagy & Higgitt (2000) point out that the links between outcomes and both risk and protective factors are complex, and that existing models are non-specific and non-linear. In this chapter, the role of risk and protective factors in the early development of pathology, and how they inform intervention target groups, is examined. Low birth weight as a child risk factor, depression as a caregiver risk factor, and poverty as an environmental risk factor, are used as main examples.

Risk Factors

Risk factors frequently co-occur, with diverse disorders sharing fundamental risk factors. Conversely, different sets of risk factors can be detected in various examples of a single disorder. It appears that it is the accumulation or co-occurrence of risk factors, rather than single factors, that is most predictive of outcome (Rutter, 1990). “No single factor is damaging or facilitating for children. Rather, the power of an individual factor or set of factors lies in their accumulation in the life of any one child” (Sameroff and Fiese, 1993, p. 136).

In addition, it is the balance between risk and protective factors that is most instrumental in affecting development (Sameroff & Fiese, 2000). As long as the balance between risk and protective factors is favourable, many children who live in high-risk conditions have a chance of successful adaptation (Werner, 2000). When stressors outweigh the protective factors, even resilient children will suffer. The goal of intervention should be to attempt to shift the balance from vulnerability, to resilience and adaptation, by either reducing risk factors or by increasing competencies, coping mechanisms and support systems. Interventions work best if based on prior knowledge of risk behaviours and conditions of target population (Beckwith, 2000).

Risks factors are those characteristics or experiences that increase the possibility of the occurrence, the severity, the duration, or the frequency, of later disorder (Coie et al., 1993).

Exposure to many risk factors has accumulative effects, as existing vulnerabilities are exacerbated by exposure to new risks (Sameroff & Fiese, 2000). Establishing clarity about aetiology requires consideration of the complex interaction between genetic, biomedical and psychosocial risks and protective factors. Risks arise in the child, in the caregiver/s, in the interactions between the infant and caregivers, and in the environment.

Protective Factors

Protective factors, too, exist in multiple domains. A child's temperament and self-regulatory capacities act as a buffer in stressful conditions. Intelligence and cognitive competence is an empowering capacity for children, and positive adaptation to one developmental task has been found to increase the likelihood of adaptively resolving subsequent tasks (Sroufe, 1988). Caregiver commitment, sensitivity (Ainsworth, Bell & Stayton, 1972; Price, 1983), emotional

availability (Emde, 1980), and appropriate responsiveness to a child's needs (Beckwith & Cohen, 1989; Martin, 1989), contribute to a secure attachment and a healthy self image, both of which are vital protective factors for children (Garmezy, 1985a; Fonagy, Steele, Higgitt & Target, 1994; Werner, 2000). Werner and Smith (1992) argue that a close attachment with an effective caregiver is a universal protective factor for children raised under adversity. Even the presence of a relatively remote yet stable and responsive adult figure can be a protective factor in an infant's life (Fonagy et al., 1994). From a systemic point of view, caregivers who have close relationships to other adults are equally protected. Social support and social transactions, through which needed emotional, informational and concrete resources are exchanged, buffer the effects of life stress. Mothers who have good social support, especially a stable supportive marriage, interact better with their children, feel more competent about parenting, and are less stressed by their parenting responsibilities (Crockenberg, 1981).

Environmental Risk and Protective Factors

Environmental factors such as poverty, violence, and unemployment place both child and caregiver at risk in numerous ways (Dawes & Donald, 1994). Persistent hardship is associated with an accumulation of factors that amplify each other (Balbernie, 2002). In South Africa in particular, high rates of unemployment, substandard housing, poor health provision, inadequate nutrition, crime and violence, and chronic illness, threaten the health, development and survival of millions of children (Robinson & Sadan, 1999). Poverty depletes emotional resources making it difficult to reverse the patterns of overstressed caregiving (Balbernie, 2002; Dawes & Donald, 1994). Social inequalities have, directly or indirectly, been found to predict more positive outcomes to the advantaged, than to low SES groups (Fonagy and Higgitt, 2000).

Factors other than HIV/AIDS have also exacerbated the problem of care in South Africa. The family structure has been eroded by various factors, e.g. apartheid-driven migrant labour practices and the large-scale political and economic upheaval during the two decades preceding 1994. The integrity of the extended family has been compromised, and this has undermined its efficacy as a social support system.

Child Factors

Temperament and physiological factors such as physical disability, prematurity and low birth weight, are child factors that may increase risk. Low birth weight and physical disability are discussed in the next section.

Low birth weight (LBW) as a risk factor

There has been a recent increase in interest in the behavioural and psychiatric sequelae of perinatal complications such as prematurity and low-birth weight (LBW). Studies examining the socio-emotional developments of LBW children at pre-school and school age (Breslau et al., 1996), reveal an increase in behavioural deficits, including hyperactivity and inattention (Botting, Powl, Cooke & Marlow, 1997), as well as social anxiety, withdrawal, shyness and depressive behaviour (Tessier, Nadeau, Boivin & Tremblay, 1997). Particularly in developing countries where children's development is compromised by many factors including desperate poverty, high caregiver mobility, repeated separation from caregivers, family disruption, high levels of endemic stress, depleted social resources, poor nutrition, exposure to pathogens, and lack of adequate health care, low birth weight babies are especially vulnerable. The potential for compromised psychological development is high with LBW infants because LBW interacts with all identified risk factors, and low birth weight babies show greater sensitivity to environmental inadequacies (Escalona, 1987). It is also associated with difficulties in

initiating and sustaining breast feeding, high energy requirements for rapid catch-up growth, higher incidence of morbidity than with infants of normal weight, and higher likelihood of having a young and inexperienced mother.

Birth weight is considered to be dependent on maternal nutritional status, weight gain and energy expenditure during gestation but is also affected by different patterns of dietary deprivation (Lester, 1979; Stein & Ellis, 1974), Women in developing countries frequently undertake medium to high levels of physical exertion without increased caloric intake. Malaria (Castetbon et al., 1999; Dreyfuss et al., 2001; Moormann et al., 1999; Steketee, Nahlen, Parise & Menendez, 2001), the human immune-deficiency virus (HIV) (Castetbon et al., 1999; Dreyfuss et al., 2001, Steketee et al., 2001), and untreated sexually transmitted diseases are implicated in the aetiology of LBW (Milosevic, 1998; Miotti, Chiphangwi & Dallabetta, 1992; Steketee et al., 2001)

Medical advances have resulted in a reduction in the negative sequelae of low birthweight. However, LBW is linked to later psychological and physical problems when poor environmental circumstances such as chronic poverty is an additional factor (Richter, 1994; Werner, 1985). Three groups of factors impact on the development of LBW infants, namely the caregiver's personal history and characteristics, the child's temperament and constitution, and the type and extent of medical complications (Richter, 1994).

Disability or developmental delay

Disability or developmental delay is a significant risk factor for the child. The accompanying disappointment, denial, and embarrassment experienced by parents increases the potential for abuse, neglect and rejection, particularly if caregivers do not understand the disability.

Parents who give birth to an infant with a physical disability often require guidance and intervention to allow the full development of their child within the reality of the child's condition. Gilkerson and Stott (2000) point out that for some parents, finding out about their child's disability or developmental delay becomes a protracted process during which they cling to the image of the hoped for child and slowly come to accept a whole new dimension of human experience. Simultaneously, the world of the child is being formed, and the child's own experience of the disability needs to be sensitively and responsibly mediated.

Contemporary interventions for families of disabled children are grounded in systems theory, enabling the exploration of family meanings, coping styles, and family diversity, and to build on strengths by promoting caregiver and child competence and resilience (Gilkerson & Stott, 2000).

Caregiver Risk and Protective Factors

Child-rearing practices, caregiver mental health, and parental attitudes and behaviour, are all potential risk or protective factors for child development. Whilst all adults have the capacity to provide responsive and sensitive caring, sometimes there are factors and circumstances that compromise their innate caregiving abilities. Extreme poverty and persistent hardship, social isolation, the stress of daily living, ill health, caregivers' own parenting history, affective disturbance and other mental disorder, impair their capacity to be emotionally available and to provide optimal physical and emotional care for their children. In some cases, caregivers simply lack awareness and understanding of the need for such care.

Child-rearing practices

Parental/caregiver deviance is a major contributor to poor child outcomes (Broberg, 2000), and because of its importance to child development, facilitation of caregiver's caregiving behaviour should be a major objective of interventions.

Caregivers who encourage autonomy, promote more shared positive affect and readily co-operate with their children, have children who internalise caregivers' rules and values (Baumrind, 1967, 1971; Kochanska, 1997). Caregiver use of criticism, lack of praise, physical control, and inconsistent monitoring, as methods of behaviour regulation, are associated with externalising and non-compliant behaviour in children, whilst nurturant caregiving is protective against anti-social behaviour (Baumrind, 1971). Parenting is prejudiced by social inequalities as well. Low SES groups provide lower learning and academic stimulation to their children, offer less variety in social and cultural experiences, less warmth and affection, and more punitive caregiving, all of which are associated with poor cognitive, emotional and behavioural outcomes (Fonagy & Higgitt, 2000). These, together with internal factors such as caregiver age, knowledge, and physical and mental health, as well as child characteristics, such as temperament, health and developmental status, are all inter-related to some degree, and affect the extent to which the caregiver and child can engage in mutually rewarding, developmentally appropriate, reciprocal interactions.

The ability to adapt to the caregiving context and be willing to respond to infant signals by letting the child take the lead is at the core of sensitive caregiving (Broberg, 2000). Dix (1991) sees responsive parenting as emanating from empathic motivation towards the child, and that responsive parenting comes about because "parents develop affectional ties that

make outcomes in children's wellbeing critically important to them. When children's wellbeing is important, parents organise interactions with children so that empathic goals and concerns are achieved" (1992, p. 320).

Sameroff & Fiese (2000), caution against targeting parenting behaviour without knowledge of the context in which the behaviour is rooted. Whilst the caregiver is a major regulating agent, the caregiver behaviour may be embedded in contexts that require additional or different intervention strategies. Caregivers' own parenting and attachment history is known to have a major impact on parenting styles, attitudes, and attribution of infant behaviours (Main, Kaplan and Cassidy, 1985), and provides an objective for intervention.

Caregiver qualities

Numerous dispositional, attitudinal and behavioural qualities of the caregiver and infant have been implicated in the quality of their interactions. Sensitivity (Ainsworth, 1992), maternal responsiveness (Bornstein, 1989), interactional synchrony (Schölmerich, Fracasso, Lamb & Broberg, 1995), warmth (Baumrind, 1971), emotional availability (Biringen & Robinson, 1991; Emde, 1980), empathy (Bowlby, 1958, 1969; Winnicott, 1960, 1965), attunement (Stern, 1985) and reciprocity (Brazelton, 1974), are caregiver qualities that have been associated with social and cognitive development in the child. These terms or constructs, referred to repeatedly in this dissertation, point to the quality of the caregivers' socioemotional investment in the infant (Bradley, Whiteside-Mansell, Brisby & Caldwell, 1997), and are characteristics that both the infant and parent/caregiver contribute to the enhancement or failure of the dyadic relationship. Stressful life circumstances such as poverty, illness, domestic violence, depression, low social support, and no prospect of

improvement, impacts on any caregiver's sensitivity, responsiveness and emotional availability.

The variables brought to the relationship by the infant are limited initially to temperamental qualities such as arousability, irritability, alertness, and soothability. However, within days of birth, the infant begins to contribute in terms of emotional availability, reciprocity, and mutuality. Although the relationship is reciprocal in nature, with the infant an active participant (as we have seen described in chapter 4), for the most part the adult potentially brings the greater number of dispositional variables to the relationship. Ideally, caregivers (adults) contribute qualities to the relationship that reflect their greater maturity, experience, responsibility, capability, and agency in the interactions. Implicit in these qualities (warmth, emotional consistency, sensitivity, empathy, acceptance) is a greater level of cognitive and psychological maturity, which is evident in higher levels of self-containment, affect-regulation, stability, all of which are capacities that the infant will not yet have fully developed. Caregivers' own internal representations and parenting history will determine, to a large extent, their levels of empathy and sensitivity (Bowlby, 1973, 1980; Dozier, Stovall, Albus & Bates, 2001; Main & Hesse, 1990; Main et al., 1985). Studies of these features have customarily been conducted using naturalistic home or laboratory observations, and utilising coding or rating instruments to categorise the behaviour of the dyad as well as of the caregiver and the child, individually. An example of such a scale is the AMIS Scale for the assessment of caregiver sensitivity (Price, 1983).

In particular, caregiver responsiveness, sensitivity, and, emotional availability warrant some discussion, as their presence is regarded as major protective factors for an infant's psychosocial well-being.

Caregiver responsiveness

Responsiveness refers to sensitivity and empathic awareness, predictability and contingency, non-intrusiveness, emotional availability, engagement, positive emotional tone, and devotion (Martin, 1989). Beckwith and Cohen (1989) regard responsiveness as the prompt and appropriate reaction to infant signals. According to attachment theory, the quality of maternal responsiveness influences the attachment security of the child, which in turn will influence the infant's self-worth, trust and developing emotion regulation (Laucht, Esser & Schmidt, 2001). Studies have confirmed clear differences in the degree and quality of sensitive responsiveness displayed by mothers of securely attached infants, compared with mothers of insecurely attached infants. The former are more knowledgeable about their infants, are more sensitive and co-operative with their infants during feeding and are more likely to allow their infant's signals and communications to guide their own behaviour (Egeland and Farber, 1984). Researchers have sought to assess whether high responsiveness acts as a buffer against early risks. Laucht et al., (2001), found, in a study of low-birth weight infants from disadvantaged families, that maternal responsivity moderates the effects of low birth weight on hyperkinetic and internalising problems, and influences the consequences of family disadvantages on total problems. These qualities of the caregiver serve a reciprocal function too, in that infants of sensitively responsive mothers react more positively to physical contact (Field, 1994), cry less, (Bell & Ainsworth, 1972), and vocalise more to their mothers, compared with infants of less sensitive mothers (Beckwith & Cohen, 1989). Responsive caregiving is linked to greater security and willingness to explore (Ainsworth, Blehar, Waters & Wall, 1978; Bornstein & Tamis-LeMonda, 1989), greater assertiveness and peer competence (Sroufe & Fleeson 1986), and competence and self-worth (Bretherton, 1987; Stern, 1985). Enhanced communicative abilities (Bell & Ainsworth, 1972) and cognitive competence have also been associated with caregiver responsiveness, and Beckwith and

Cohen (1989) report increased relative competence and increased mutual responsiveness in these infants by the age of two.

Sensitivity

Closely linked to emotional availability and responsiveness is a construct most frequently associated with Attachment theory, namely sensitivity (Ainsworth et al., 1972). Both sensitivity and emotional availability require a caregiver to be able to monitor or perceive the signals, interpret their meaning accurately, to select an appropriate response from their behavioural repertoire and to execute the response promptly and contingently. Ainsworth's view of sensitivity is one of warmth and attunement primarily in the context of responsiveness to the cues of the infant.

Maternal sensitivity during the first year of life is strongly predictive of the infant's security of attachment at the end of that first year (Ainsworth et al., 1978; Grossmann, Grossmann, Spangler, Seuss & Unzner, 1985). For Ainsworth and colleagues (1972), sensitivity in caregiving is multifaceted and complex quality. It requires an awareness of infant signals and a sensitivity to the threshold of these cues. The caregiver needs to be empathic to enable the infant to engage her emotions. Accuracy is required in the interpretation of infant signals, and is negatively affected by the caregiver's projection or denial.

Ainsworth et al., (1972), established a method of assessing sensitivity using 4 dimensions, namely, sensitivity, acceptance, co-operation and accessibility. The infants whose mothers were rated as more sensitive, were also more likely to show greater acceptance of the child, and be more co-operative with and accessible in their interactions with the child. Meins, Fernyhough, Fradley and Tuckey (2001) offer an alternative view, suggesting that maternal

behaviours that are characterised by a sensitivity to the child's mental state, rather than responsiveness to the child's physical and emotional needs, may be a more useful way of predicting attachment. This sensitivity to the child's state of mind, they call 'mind-mindedness', and it describes the caregiver's inclination to treat the infant as an autonomous individual. This state of being with the child is one that is independent of the response to physical and emotional needs, and continues after these needs are satisfied.

Emotional availability

Emotional availability is a term used to describe the supportiveness and encouragement of the infant (Biringen & Robinson, 1991). Abusive mothers' emotional detachment, lack of responsiveness to infant distress, and lack of enjoyment during interactions with their children has been referred to as emotional unavailability (Egeland & Erickson, 1987). Similar emotional unavailability is reported of depressed caregivers (Cohn, Matias, Tronick, Connell & Lyons-Ruth, 1986; Weissman, Paykel & Klerman, 1972), and in the childrearing histories of adults who have insecurely attached infants (Main et al., 1985). Emotional availability implies that any caring relationship has a range of organised emotions with which continued involvement, intimacy and developmental change is associated. It thus refers to the degree to which each partner expresses emotions and is responsive to the emotions of the other. The caregiver's emotional availability facilitates the infant's self-regulation, which becomes internalised and added to the affective self of the child. Through repeated experiences with the caregiver the infant comes to understand the meaning and consequences of his/her own emotional signals, thereby gaining a sense of self-efficacy (Emde & Easterbrooks, 1985).

Psychopathology

Long-term studies of child outcomes have found that protection from psychopathology is largely linked to positive and stable caregiver-child relationships (Garmezy, 1985, 1988; Werner, 1989). Psychopathologies such as anxiety, depressive disorders and behaviour problems have been associated with chronically disturbed and/or interrupted caregiver-infant interactions especially those characterised by disorganised attachment (Crittenden, 1995; Lewis, Feiring, McGuffog & Jaskir, 1984; Lyons-Ruth, Easterbrooks & Cibelli, 1997). Disturbed caregiver-child interactions that occur in child neglect and abuse are associated with insecure attachments, insensitive and hostile care, and poor outcomes (Bousha & Twentyman, 1984; Crittenden, 1993).

Caregiver psychopathology such as depression, anxiety, personality disorders, schizophrenia, substance abuse, and violence, negatively affect the infant's caregiving environment (Fonagy & Higgitt, 2000; Seifer & Dickstein, 1993). The use of alcohol during pregnancy has been associated with major morphological abnormalities, growth restriction and CNS damage (Cooper, 1987; Jones & Smith, 1975; Little & Streissguth, 1981), and caregiver alcohol abuse in general increases the risk of domestic violence, and child neglect and abuse (Golding & Sidebotham, 2001; Kelley, 2001). . Most of these factors impact directly on the interactions between caregiver and child, which result in deficits of involvement, nurturance and protection (Bowlby, 1982). The impact of maternal depression on infant development is discussed in detail in the next section.

Caregiver Depression as a Risk Factor

Despite contemporary changes in caregiving roles, women remain the main providers of care. Providing care is part of the socially constructed role for females, and relationships are the

first aspects of their worlds to be compromised under adverse condition. There are two main pathways by which women's relationships are affected: namely their affective state (Fonagy & Higgitt, 2000; Murray & Cooper, 1997), and their learned interpersonal style (Beck et al., 1979). If caregivers suffer from depression or other psychopathology, the impact on their relationships is notable (Field, 1987; Field et al., 1990; Murray & Cooper, 1997; Puckering, 1989).

The severity and chronicity of any psychopathology is a risk factor (Fonagy & Higgitt, 2000; Garnezy, 1985b; Masten & Garnezy, 1985). Any affective disorder predisposes a mother to interactional difficulties, so that the usual demands of caregiving may become overwhelming, leading to a situation where caregiver and baby have a negative influence on each other (Field et al., 1990; Field, 1990). Approximately 10-20 percent of mothers experience significant symptoms of depression in the postpartum period (Goldberg, 2000). In developed countries, up to 40% of women with pre-school children have been found to be clinically depressed, whilst the incidence of affective disturbance is equally high in developing countries. A DSM-IV classification of major depression was found in 34.7% of mothers of children less than 4 months of age, in a South African peri urban community (Cooper et al., 1999), and anxiety and depression are particularly common among women of childbearing age (Kumar, 1994). The reports of high rates of depression and anxiety among women in developing countries is a cause of concern, in view of the adverse consequences for infant health, nutrition and psychological well-being (Rahman, Harrington & Bunn, 2002) and an urgent need to design and implement effective interventions exists.

Maternal depression is characterised by anxiety, depressed affect, irritability, hopelessness and helplessness, feelings of guilt, emotional unavailability, self-absorption, insomnia and

tiredness, lack of spontaneity and interest in the environment, slow responses, and predominantly negative cognitions.

The effects of maternal depression on infants and young children have been well documented (Field et al., 1990; Puckering, 1989; Tronick & Weinberg, 1997). Infancy and early childhood is a crucial time for children to learn to identify and regulate their own feelings, and having to 'cope' with mothers' emotional needs may compromise their socio-emotional development (Field, 1992; Murray & Cooper, 1997; Weissman et al., 1972). Depressed caregivers' preoccupation and self-absorption prevent them from supporting joint attention and common awareness.

Impaired judgement in depressed mothers is reflected in their negative ratings of their infants' behaviours, compared with their more positive ratings of their own behaviours, (Field, Morrow, & Adlestein, 1993). Depressed mothers have negative views of their infants, (Kochanska, Kuczynski, Radke-Yarrow & Darby Welsh, 1987), express high rates of criticism, and either low involvement or high intrusive involvement with the child, depending on type of depressive presentation. Depressed mothers display one of two interaction styles: either an over-stimulating or intrusive style, or an under-stimulating or withdrawn style (Cohn et al., 1986; Field et al., 1990). Self-ratings vary with depressed mothers' interaction styles (Jones, Field, Hart, Lundy & Davalos, 2001). Withdrawn mothers do not perceive their behaviour as withdrawn or under-stimulating, but identify withdrawn behaviour in others. Withdrawn depressed mothers report being more distressed by infant crying, whilst intrusive depressed mothers report feeling greater levels of irritation and annoyance toward the crying infant (van den Boom, 1995). It is important for intervention programs to recognise this discrepancy in self-evaluation, as self-awareness of behaviour is crucial to intervention and

change, and to openness to alternatives. Withdrawn depressed mothers are less expressive, and show more negative interactions with their infants, than depressed intrusive mothers (Jones et al., 2001). Maternal depression exposes children to many experiences of maternal emotional distress and neediness, and the child experiences a relatively continuous history of maladapted functioning, the cumulative effect of which has consequences for their social and emotional development.

The precise mechanism or pathway whereby maternal depression effects infants (Cohn et al., 1986; Field, 1995), and children (Field, 1987; Jones et al., 2001) has not been confirmed, but these negative effects highlight the need for intervention efforts to target depression and its consequences. Speculations are that exposure to the difficult interactions and negative emotions of mothers impact on how neural pathways are laid down in infants' brains, and that the distorted interactions have a direct effect on the development of neurotransmitter systems, posing possible future vulnerability to affective disorder (Nelson & Bloom, 1997). Infants of depressed mothers display "depressive" symptoms during the neonatal period (Lundy, Field & Pickens, 1996), and right frontal EEG asymmetry as early as one month (Jones et al., 2001). Greater negative affect corresponds to greater right frontal EEG activation (Dawson, 1994). Infants have marked larger-than-normal right frontal EEG asymmetry during interactions with depressed mothers (Field, Fox, Pickens & Nawrocki, 1994; Jones et al., 2001).

Experimental studies indicate that during the first six months of life, babies' positive mood, and engagement follows that of the caregiver with significant probability (Cohn & Tronick, 1989). Reductions in caregivers' level of affect expression, and positive tone, are followed by reductions in infant engagement and level of positive emotional responsiveness. Infants of

depressed mothers, adopt a 'depressive' demeanour, have flat affect (Field et al., 1990; Pickens & Field, 1993), are less expressive, vocalise less (Lundy et al., 1996), and experience delayed growth and decreased cognitive development at one year of age (Hay, 1997; Murray, 1992). Reviews of the behaviour of depressed caregivers interacting with infants and young children indicate that depressed mothers are slower to respond to sounds of their infants, and distortions in the usual patterns of motherese occur (Bettes, 1988). During depressive episodes a caregiver's emotional availability and responsiveness is restricted (Cummings and Cicchetti, 1990). Depressed mothers often fail to create the milieu in which a child's feelings can be contained, and the child receives little help in understanding his or her feelings or in learning how to regulate difficult emotions (Tronick, Ricks & Cohn, 1982).

Of particular relevance to intervention efforts in developing countries is the evidence linking maternal psychopathology to infants' physical health. Traditionally the focus of studies on maternal depression has been on its impact on the child's attachment security, and subsequent cognitive and socio-emotional development, but little attention has been given to the effects of maternal affective disturbance on the child's physical growth and well-being (Rahman et al., 2002). The influence of the emotional quality of childcare on physical growth has been acknowledged (Widdowson, 1951), and there is a link between poor nutrition and maternal affective disorder (Kerr, Bogues & Kerr, 1978). Children of emotionally disturbed mothers have been reported to have more hospital admissions and higher mortality rates (Billings and Moos, 1983), and more physical health problems (Bagedahl-Strindlund, Tunell & Nilsson, 1988) than children of non-depressed mothers. In addition, researchers found higher levels of maternal affective disturbance in malnourished children, than in well nourished children (De Miranda, Turecki & Mari, 1996). In view of the infant's total dependence for survival on the caregiver, and the increased susceptibility of mothers to a depressive episode, the first year of

life is a particularly vulnerable period and shortcomings in early care are likely to be most apparent in the infant's physical health (Rahman et al., 2002). In developed countries, research shows that depressed mothers place their infants at risk through their reluctance to acquire adequate antenatal care (Millberger, Biederman, Faraone, Chen & Jones, 1996). In developing countries, access to antenatal care is often difficult (Rahman et al., 2002), and apathy may contribute to caregivers not making regular use of services. It is also possible that depressed mothers are slower to recognise or respond to early signs of illness in the child, and apathy results in their not accessing professional medical intervention for their sick infant. The apathy concomitant with depression may also impact on mother's interest in feeding their offspring adequately (Rahman et al., 2002).

Attachment Status as a Risk or Protective Factor

It is important to stress that insecure attachment is not necessarily pathological. However, it has been shown that secure attachments predict social and behavioural competence and adaptation, whereas insecure attachments of any kind have been found to have a strong link to later social inadequacy and psychopathology (Crittenden, 1995). Securely attached children display greater ability to regulate and manage their emotions (Cassidy, 1994). They also exhibit greater confidence and autonomy, less dependence, greater competence at establishing close, warm relationships with peers, and are less prone to developing behavioural problems than their insecure counterparts (Rothbaum, Weisz, Pott, Miyake & Morelli, 2000; Sagi, van IJzendoorn & Koren-Karie, 1991). Evidence exists to support the stability of attachment classifications (Waters, Merrick, Treboux, Crowell & Albersheim, 2000).

Anxious attachment is associated with decreased competence in socio-emotional functioning in toddlerhood and early childhood, in normative and high-risk samples (Arend, Gove &

Sroufe, 1979; Main et al., 1985; Erickson, Sroufe & Egeland, 1985; Sroufe, Fox & Pancake, 1983). Clinical and research findings point to a history of dyssynchronies between mother and infant in the development of anxious attachment (Lieberman, Weston & Pawl, 1991). It is believed to be the outcome of repeated interactions in which the caregiver has been unable to be adequately responsive and appropriately emotionally available to the individual characteristics and specific needs of her infant (Ainsworth et al., 1978; Fraiberg, 1980). Studies of the constancy of attachment patterns suggest that unless substantial changes occur in the mother's psychological availability, patterns of attachment are stable between 12 and 20 months (Thompson, Lamb, & Estes, 1982; Vaughn, Egeland & Sroufe, 1979).

Studies have found that attachment status is predictive of a number of psychological and social outcomes. In a study conducted by Bohlin, Hagekull and Rydell (2000), attachment status was associated with popularity, social activity and confidence. Attachment status predicted aggressive behaviour when rated by pre-school teachers (Lyons-Ruth, Alpern & Repacholi, 1993) as well as independence, confidence, and problem-solving competence as rated by school teachers (Sroufe, 1983). Attachment in a group of 49 children assessed at 2 years of age predicted social competence with peers at 5 years (Pierrehumbert, Iannotti, Cummings & Zahn-Waxler, 1989). Disorganised attachment was found to be the best predictor of teachers' ratings of hostile behaviour in 5 year olds (Lyons-Ruth et al., 1993). The findings regarding peer relations are particularly important in that they have been related to externalising behaviour problems, including disruptiveness, aggression and delinquency, especially in boys.

Parent and Child Health Status as a risk factor

In South Africa millions of children are directly affected by the HIV/AIDS pandemic. Almost all HIV infections in children younger than thirteen years of age are due to vertical transmission during pregnancy, during birth and from breast-feeding, and approximately two thirds of these infants will not become HIV positive (Smart, 2000). However, many of these babies will need alternative care, as they are likely to lose their mothers and their fathers to the epidemic within two to three years of their birth. Smart points out that approximately one third of babies born to HIV-positive mothers will themselves become HIV-positive. These will show signs of HIV or AIDS illness in the first year and will die before their third birthday. It is estimated that by 2010 there will be two million AIDS orphans in South Africa. (Whiteside & Sunter, 2000).

Chapter 6

This chapter, which introduces the field of early intervention, is divided into three main sections: In the first section, intervention programs are defined, and the description of two models of interventions and two treatment modalities, are presented. In the second section, the effectiveness, and limitations of various intervention programs and treatment modalities are discussed. The third section is devoted to discussing cross-cultural issues, and to the challenges associated with undertaking interventions in developing countries.

Section One: Interventions

Introduction

The broad definition of early intervention includes a variety of educational, psychological, or therapeutic interventions aimed at handicapped, at-risk, or disadvantaged preschoolers to prevent or ameliorate developmental delays or disabilities (White, Bush & Casto, 1986). This dissertation will limit itself to relationship-enhancing interventions, and more specifically to the discussion of two exemplars of preventative intervention models and two therapeutic modalities.

Preventative and therapeutic early intervention is a multidimensional enterprise. They can be supportive, educative, or psychotherapeutic in nature, targeting family conditions, parenting, or child behaviours. Interventions target the child directly, the caregiver's strengths and vulnerabilities, the caregiver-child dyad, the parental couple or the family ecology and functioning. They are either home-based, centre-based or a combination of the two; they vary in intensity, duration and timing; they attempt to address a variety of problems or risk factors;

they are conducted by professionals, paraprofessionals and non-professionals. Interventions vary according to theoretical perspective on the conditions that are critical for healthy development, on causes of pathology and maladaptation, and on agents of change.

Many early intervention programs take their conceptual framework from prevention in public health, in which prevention is defined as promoting and maintaining health, and minimising illness, disability and suffering (Barnard, Morisset & Spieker, 1993). Traditionally, health systems have categorised prevention efforts as primary, secondary, and tertiary, also referred to as universal, selected, and indicated levels of intervention (Barnard et al., 1993). The links between agent and condition is clearer with biological disease than with behavioural problems. These categories are therefore more easily applied to biological diseases than in the prevention of psychological disorders (Sameroff & Fiese, 2000). However, infant mental health has largely adopted this categorisation.

Universal prevention is distinguished by its attempt to avert problems before they begin. The epidemiological use of the term refers to the reduction of the incidence of new cases by reducing risks. Common medically oriented examples are immunisations, prenatal care and water fluoridation (Barnard et al., 1993). Prenatal care has become entrenched in most health systems, and Miller (1991) reports consistent demonstration, across repeated studies, of a relationship between prenatal care and positive health outcomes for babies and caregivers. Developmental preventative health care for children needs to begin before conception, and follow up during the prenatal, intrapartum and postnatal stages should be included in child health services beginning at birth (Barnard & Morisset, 1995), since the psychological work that caregivers need to do, to ensure that the baby is accepted and valued by the entire family, commences in pregnancy.

Secondary or selected prevention services are aimed at individuals whose characteristics place them at increased risk of developing further problems, e.g. educational interventions for parents of premature and low birth weight babies (Barnard et al., 1993). As discussed in Chapter five of this dissertation, environmental risk factors such as poverty, illness, unemployment and parental emotional distress, present risk for children's intellectual delay, school failure and psychopathology. Furthermore, preventative interventions must be mindful of the fact that physical and emotional resources of caregivers are diminished by experiences of adverse environmental and socio-economic factors. Survival often necessitates a shift of attention from caring for children to finding sustenance or money.

Tertiary or indicated programs treat and manage health problems once disorder has occurred (Barnard et al., 1993; Coie et al., 1993). These are designed to provide treatment to infants who are not merely at risk for symptoms or disorders, but who are already disturbed. Although the focus is on treatment and amelioration, this type can also be preventative, in as much as possible onset of other associated disorders is addressed.

An integral part of many relationship-enhancing interventions is the use of behavioural and didactic modalities. Massage, sensitive and affectionate handling, and 'kangaroo' care, is taught to mothers of low birth weight infants (Field, 2000; Tessier et al., 1998). These techniques increase the incidents of actual physical contact and closeness between infant and child, promoting physiological regulation for the infant, and increased caregiver awareness and sensitivity to the infant's signals.

Information about the child developmental timetable and child capacities is made available to caregivers in the form of films, videos, booklets and demonstrations. The information is communicated in a didactic fashion through verbal information giving, video, documentary type information, or instructional material. An example is, “Keys to Caregiving”, a standardised programme of instructional material that focuses on infant state, infant behaviours, infant cues and non-verbal behaviour, state modulation, and the feeding interaction at different developmental stages (Spietz, Johnson-Crowley, Sumner & Barnard, 1990). These have only been found to be effective when they are part of a more intensive therapeutic intervention.

Preventative intervention models

Two exemplars of preventative early intervention programs, namely the home-visiting programs conducted by Olds (Olds & Kitzman, 1990, 1993; Olds, Henderson & Kitzman, 1994; Olds, Henderson, Tatelbaum & Chamberlain, 1988) and the Mental Health Model of relationship enhancing programs described by Barnard and Morisset (1995), and Barnard et al. (1993), are presented. The applicability of these two exemplars to conditions in developing countries will be discussed later in the chapter.

Home-visiting programs

Over the past 20 years, Olds and various colleagues have run a prenatal and early childhood home visitation program for women of low socio-economic status (Olds & Kitzman, 1990, 1993; Olds, Henderson & Kitzman, 1994; Olds, Henderson, Tatelbaum & Chamberlain, 1988). In this program, home visits are conducted during the mother’s pregnancy, and the first two years of the child’s life, by specially trained nurses. Visits included an educational component, parenting techniques, enhancement of social support, and advice. The program

design makes use of an ecological model for understanding human behaviour and conditions. It is based on the premise that nurse home visitors are in an optimal position to identify and help change factors in the family environment that interfere with maternal health habits, infant caregiving, and personal accomplishments in the area of work, education, and family planning. The main focus is on identification and solving of problems. Examined in three successive randomised trials (in Elmira, New York, Memphis Tennessee, and Denver Colorado), the program has evolved over time, but fairly consistent results have emerged.

In one of the abovementioned programs for socially disadvantaged first-time mothers, 85% of whom were teenagers, Olds, Henderson, Tatelbaum and Chamberlin (1988) reported that when compare with the control group in this study, the experimental group produced the following results: teenage participants returned to school more rapidly; there were 43% fewer subsequent pregnancies; and mothers postponed the birth of a second child on average of twelve months longer, compared with participants in the control group. In a follow-up study of the enduring effects of parental caregiving and child health at twenty-five to fifty months of life, the findings were as follows: No enduring effects on the rates of child abuse and neglect or on children's intellectual functioning were evident 2 years after the program ended. However, there were lasting effects on household safety; and the qualities of care provided by unmarried teenagers to their children. In addition, there were fewer injuries and ingestions that required medical attention. Although there were no enduring effects for reduced maltreatment after the program had ended, the home-visits appear to have acted as a deterrent during the program, suggesting that home-visitation should be continued beyond the 24th month of life with families at very high risk (Olds, Henderson & Kitzman, 1994).

Home-visiting programs – Barnard & Morisset

Central to Barnard and Morisset's Mental Health Model (MHM) (1995) is the premise that the best way to ensure the healthy development of unborn infants is to foster and nurture competence in the mother, beginning even before conception. The model has as its primary emphasis the development of a therapeutic relationship with the pregnant woman, and, through this relationship, to develop other positive affiliations with the woman's family and friends. The home-based program is delivered by nurses who have graduate training in parent-child nursing. The nurse-client relationship acts as a model of the ways in which interpersonal situations and problem-solving can be undertaken. The patient is regarded as an active participant, and the paramount aim is to increase the mother's social competence, through non-didactic means.

A study by Barnard et al. (1987) compared the MHM with the Information/Resources Model, which is an information based intervention that gave mothers with guidance for basic care of the infant. The focus in the MHM was on mother's social skill and her relationships with others, and was based on the premise that an individual's capacity to 'parent' a child is strongly associated with the person's capacity to have satisfying relationships with other adults (Barnard et al., 1993). In addition, the caregiver's own parenting history was seen as a determinant of the caregiver's capacity to relate to the child. During the first few months of the infant's life there are three main objectives for the mother: (a) insuring the mother's affiliative support; (b) enhancing the acquaintance between infant and caregiver; and (c) promoting a milieu that enhances self-regulatory behaviour of the mother and infant.

For the rest of the first year, the program's objectives were: (1) to maximise the mother's affective involvement with the infant; (2) to provide the infant with a variety of stimulation and temporal organisation; (3) to increase the mothers understanding of reciprocal interactions; (4) to ensure the mother's realistic developmental expectations for the child; (5) to strengthen the mother's network; (6) to increase the sense of trust in mother and child; (7) to promote a safe environment; and (8) to avoid restrictive caregiving. Outcomes were as follows: 80% of caregivers completed the MHM whilst only 53% completed the information based intervention. In addition the MHM caregivers' social competencies and interaction with their children was enhanced.

Treatment or therapeutic models

The implementation of models of therapeutic interventions is similar to preventative models, but differ in that they aim to ameliorate a disturbance or problem that has already materialised. The patient either self-refers, or identification of the problem usually takes place during a routine or specific visit to a clinic, doctor or other health practitioner, or the patient self-refers. Two methods of relationship-enhancing therapeutic intervention – Interaction Guidance and Infant-parent Psychotherapy – are presented. Both modalities follow an ecological or transactional model (Bronfenbrenner, 1979), and are adaptable for cross-cultural intervention, in that they can accommodate variations in cultural rules and norms. They are strengths-based interventions and involve the caregivers in identifying and negotiating the treatment, placing much of the process in the hands of the caregiver. Their suitability for intervention efforts in the South African situation is also discussed in Section Three of this chapter.

Interaction guidance

Interaction guidance is fairly widely practised in infant mental health settings, and although it was originally devised for use with families who are resistant to intervention and difficult to engage, it is applicable at all levels of psychological sophistication. It is a relationship-based intervention that focuses on self-observation as a vehicle of change, and has been described as useful with families previously unsuccessful in utilising mental health treatment (Cramer, 1997; McDonough, 1995, 2000). The intervention makes use of a transactional model of development in which the infant-caregiver relationship is embedded in a larger contextual system comprising family, friends, and society. The intervention is focussed on the relationship rather than targeting a problem in either the caregiver or the child, providing a non-prescriptive, non-directive alternative to didactic dissemination of information.

The duration of the treatment is approximately 10-12 sessions, each an hour long, over a period of two to six months. The intervention structure comprises an assessment of the family situation, negotiation of the treatment and who attends the sessions, and then delivery of the intervention.

Initial interview: The assessment involves a meeting with the infant's primary caregivers and any close family members or friends who assist in the care of the child. This affords the entire family the chance to participate, and it gives the intervenor a clearer understanding of the family's perspective on the situation. The family is encouraged to tell their "family story", describing the history of their relationship with the family. This meeting also reveals aspects of the family's perspective on the child, the family's belief system, family rules, ritual, and codes. This focus on the family's perspective encourages sensitivity to family

cultural beliefs and practices, offering a greater likelihood of success. The family is directly involved in formulating treatment goals. The model is explicitly strengths-based and emphasises the working alliance between therapist and family.

Intervention: The infant and caregiver/s engage in a play interaction, which allows the therapist to observe the quality of interactions, exchanges, and responses. Appropriately timed comments or questions, about an interaction are posed by the therapist, which gives opportunity for the caregiver to reflect, and to comment or raise further questions. The process enhances caregivers' capacity for self-reflection, and it highlights the infant as active participant in interactions. It gives meaning to infant behaviours and assists caregivers in understanding the dynamics and impact of the dyadic interactions. In addition, it sensitises and informs caregivers of infant capacities and development. The process facilitates addressing caregiver's attitudes toward, and attributions about, the infant's behaviour and intentionality. All of these help to facilitate the caregivers' understanding of their role in the growth and development of their own child, and the content and style of interaction, provides the therapist with useful clinical information, which augments the picture formed during the initial interview.

A working alliance between therapist, caregiver, and preferably other family members, needs to be established early in the process. The therapist assumes a non-authoritarian role, conveying her expertise in a non-judgmental, and sincerely caring and concerned fashion. This stance is enhanced by the emphasis on family strengths, a shared interest in the value and welfare of the child, and on matters of mutual agreement.

A recent modification to interaction guidance is the use of video recordings of the interactions (McDonough, 1995, 2000). The process involves the analysis of videotape recordings of mother-infant play interactions, in which observable family interactions are seen as a reflection of the infant caregiver relationship, and of current family functioning, but also as a representation of the caregivers own parenting history. A specified interaction (play or problem-solving) between caregiver and infant or toddler is videotaped, and then played back to caregiver. Reviewing the videotape offers the caregivers an opportunity to observe their infant's behaviour as well as their own interactional style, and to listen carefully to the content and manner of their speech to their child. Caregivers become aware of important positive interactive behaviours, the reinforcement, elaboration, and extension of which, would be beneficial for improving their interactions. Similarly, negative interactive behaviours that require redirection, alternation, or elimination become evident. It is a creatively effective way of identifying the caregiver's constructive and appropriate interactions with their baby, which can be explained, encouraged, and developed. The therapist and caregiver observe the behaviours together, followed by an opportunity for comments, reflections, and questions, placing the process in the hands of the caregiver. The use of video not only speeds up the process, but allows for self-observation that is not possible in the immediacy of the interaction. In resource-poor settings, the use of video recordings may not be viable, but it may be useful to modify this modality for use in groups.

Infant-parent psychotherapy

Infant-caregiver psychotherapy is probably the best known and most widely used form of psychodynamically oriented intervention in infant mental health in the West, and its effectiveness is endorsed by numerous researchers (Lieberman, 1985; Lieberman et al., 1991). Developed by Selma Fraiberg (1980) and her colleagues, infant-parent psychotherapy is a

multimodal method of intervention, that uses joint work with caregivers, infants, toddlers and pre-schoolers. The ultimate goal is improving caregiver-child relationships and children's socioemotional functioning. This approach has always emphasised the therapeutic relationship as a basic catalyst for change.

The infant is present during the treatment, which usually takes place in the home, though the author cites occasions when more unconventional venues were used (Fraiberg, 1980, p. 54). Even though the infant cannot speak, he or she is central to the therapy, and everything that transpires in the treatment is addressed directly or indirectly to the problems of the infant and the relationship. The author justifies the inclusion of the infant in the sessions as follows:

“Since infant observation and infant-parent interaction were central to that study, the baby was always in the room unless he was napping. We soon discovered that the presence of the baby was not only necessary for our study of development, but the baby in the room became a partner in the ongoing dialogue. He was intensely, emotionally there and gave import to all exchanges between the parents and us. Parents discussing a baby who happened to be napping in another room could, we found, distance themselves in their report to us, and their communications might screen out emotion. Then, perhaps a few moments later, when a wakeful baby was brought into the room, there was a heightened emotional climate. If there were tenderness and deep love for the baby, the presence of the baby evoked the most poignant expressions of love. If there were conflicting emotions toward the baby, the conflict seemed to surface with his physical presence. The physically present baby touched off a chain of emotions in the parent which often led to revelations

of feelings in words, or to the formulation of painful questions to us, as if the sleeping baby had aided repression or denial in the parent and the wakeful and present baby broke the barrier against feelings” (Fraiberg 1980, p. 50).

Fraiberg and her colleagues have found that it is possible to help the baby and help the caregiver/s concurrently, with benefits to both. Even if the caregiver/s have not yet resolved their own personal conflicts, the intervention brings satisfactory assistance for the infant. The changes that take place in the baby are attributed to strong developmental currents within the child that assist the improvement when some of the obstacles are removed. Fraiberg acknowledges that the changes observed in the caregivers are not fundamental changes in personality, but do represent changes in capacity to nurture and relate to their child. The assumption is that the baby is a catalyst, providing a potent motive for positive change in that he is the representation of their hopes and longings. The baby invokes profound memories and feelings in the caregivers, sometimes even arousing old conflicts, which present themselves for resolution, as part of the therapeutic process.

One of the first concerns is the boundary violations that this modality is likely to present. The role of the therapist as a neutral professional, especially during home visits has to be clearly defined and explained to the caregivers. The therapist is a professional guest, and she maintains her therapeutic attitude.

Fraiberg has two approaches to dealing with infants and caregivers, namely, developmental guidance, and infant-parent psychotherapy. The former is useful for caregivers judged to have good parenting capabilities but who find that their capacities are strained intolerably due

to neonatal complications, chronic illness or other factors. It is a viable alternative in cases where infants have severe emotional problems, but where the caregivers are assessed as having limited capacity to deal with internal conflicts. The object in developmental guidance is to provide emotional support and to strengthen caregiving capacities, whilst simultaneously providing developmental guidance in the form of information and discussion about the infant's needs. Developmental guidance is in essence a form of education that is integrated into psychotherapeutic work, and is guided by the clinical judgement of the therapist. In some cases caregiver's concerns reflect a genuine ignorance of the needs of babies, in which case basic education is not anti-therapeutic. Developmental guidance provides non-didactic education to facilitate the development of caregiver-child relationship, and to lead caregivers to understand baby's needs in order to promote development. The usefulness of these aspects of Fraiberg's model are highlighted later in this chapter.

Infant-parent psychotherapy is seen as an intervention for caregivers whose psychological conflicts distort their relationship with their baby. In these cases the baby is seen as a representation of figures within the caregivers past, or a representation of a disowned or repudiated aspect of the caregiver's self. Fraiberg describes it as "the baby himself seems engulfed in the parental neurosis and is showing the early signs of emotional disturbance. The therapeutic process addresses and examines the parental past with the hope of freeing the caregiver and child from what Fraiberg has called the "old ghosts that invaded the nursery" (Fraiberg, Adelson & Shapiro, 1975). As is the case with interaction guidance, the therapeutic alliance is central to the work. Infant-parent psychotherapy has a clearly psychoanalytic foundation. Difficulties in the alliance at any point in the process are examined, and causes are sought in the relationship between the caregivers and the therapist, and are understood in terms of analysis of the transference.

This approach would be best delivered by a skilled professional and is probably unsuitable for use in the proposed intervention.

Section Two: Effectiveness of early intervention programs

Efficacy Studies

In 1986, White reported that despite widespread support from practitioners for the concept of early intervention, there was still debate about whether there was sufficient evidence for the effectiveness of early intervention to justify the costs involved. Reviews had attempted to establish clarity about efficacy, but had been inconclusive because of methodological shortcomings (White et al., 1986). The rationale for critically examining previous intervention attempts is to improve procedures to be used in future efforts. More recent meta-analyses and reviews have been conducted with greater methodological rigour, and promise to provide clearer guidelines for more efficient and effective interventionism in future.

Interventions are important in that they are likely to provide a more direct way of establishing clear causal relations between factors as yet only linked by cross-sectional or longitudinal correlation (Coie et al., 1993). “The question in early intervention research is no longer whether early intervention is effective, but rather, what are the critical variables for fostering and maintaining developmental gains and environmental changes?” (Barrera & Rosenbaum, 1986, p. 112).

The field of early intervention still struggles with questions of the extent to which efforts can be individualised, the duration of an intervention, the optimum level of caregiver participation, the age of commencement of program, and what factors to target.

Timing, duration and intensity

Three key component factors of intervention programs are timing, intensity and duration. Research evidence and experience suggests that times of transition are particularly effective for commencement of interventions (Barnard & Morisset, 1995; Olds & Korfmacher, 1998; van den Boom, 1995). These times of transition include pregnancy, marriage, outset of caregiving, etc. Coie et al. (1993) proposes that preventative interventions should target risk factors before they stabilise as predictors of dysfunction.

There is inconsistency in the literature regarding the optimal duration and intensity of programs. Van IJzendoorn, Juffer, and Duyvesteyn, (1995) deduced from a meta-analysis of 16 relationship-enhancing interventions, that short-term interventions were more effective in enhancing maternal sensitivity, than long-term interventions. Others suggest that short-term programs have limited benefits (Fonagy & Higgitt, 2000). Seitz, Rosenbaum & Apfel (1985) argue that multiyear programs target more risk factors, with more enduring effects. Numerous relationship-enhancing programs seem to be short and intense in duration, with substantial follow-up and assessment for as long as 2 years (van den Boom, 1995; Heinicke et al., 1999). The evidence suggests that interventions that have single or limited targets, require shorter more intense interventions whilst multidimensional targets require longer duration, but this requires clarification and confirmation. Van den Boom (1995) reported increases in maternal sensitivity, as well as a positive change in attachment status at 24 months and again at 42 months. Although the intervention itself was short, it was followed by an intensive program of monitoring and assessment, namely, at fifteen and twenty-three months of age, which may account for the positive results. Prolonged contact with the caregiver, as a factor promoting enduring effects needs to be investigated.

General effectiveness

Because interventions are so varied, it is difficult to assess or evaluate unequivocally their effectiveness (Olds & Kitzman, 1993; van IJzendoorn et al., 1995). Even when interventions have common aims, e.g. to enhance caregiver-infant interaction, they differ in numerous other variables.

Relationship-enhancing interventions are in their “infancy stage” (Lojkasek, Cohen & Muir, 1994). However, randomised control trials of interventions targeted at caregiver-child relationships, have indicated that interventions are effective in improving caregiver sensitivity and responsiveness to the needs of infants (Armstrong & Morris, 2000; Broberg, 2000; van IJzendoorn et al., 1995). These interventions addressed caregiving qualities such as responsiveness, sensitivity, empathy and emotional availability, believed to be caregiver characteristics that make a crucial impact on reciprocity and mutuality, and which are at the core of intimacy and relatedness. However, the effectiveness of the interventions in altering attachment status is unclear. In the aforementioned review by van IJzendoorn et al., (1995), an effect size of 0.58 with regard to maternal sensitivity, and 0.17 for changes in attachment status was found, which is significant but weak. The possible reasons given for these findings are a) that measures used for assessing sensitivity may not be adequate; b) sensitivity may not be the correct construct to be considered in the development of attachments; or c) that other factors are involved in the development of attachment.

Numerous other features of successful interventions have been documented. Programs that include caregivers, as opposed to the stimulation of infants only, lead to more positive outcomes (Beckwith, 2000). The main agent of change is the relationship between infant and

caregivers (McDonough, 1985, 1995). From our current understanding of the experience-expectant and experience-dependent nature of child development, and of the importance of empathically reciprocal caregiver-child interactions for that development, we accept that interventions that focus on the child alone are less effective than those that include the system or context within which the child lives (Barnard et al., 1993).

Studies of the long-term effects of relationship-based intervention programs are limited. Olds and Kitzman (1990), reviewed randomised control trials of prenatal and infancy home-visitation programs for socially disadvantaged women and children. In a fifteen year follow up of a randomised control trial in which home visitation services were employed to improve maternal and child health and functioning, long-term effects on women's life course and child abuse and neglect were examined (Olds et al., 1997). This study concluded that it is possible for prenatal and early childhood home visitation by nurses to reduce the use of welfare, reduce child abuse and neglect, limit criminal behaviour and reduce the number of subsequent pregnancies for up to fifteen years after the birth of the first child. The limitations of these results are that they were based on self-report measures, and may therefore be skewed.

Although it was not the primary objective of these programs to increase caregiver sensitivity, there are lessons learned from them that are applicable to all intervention efforts. Those home-visitations with the greatest chance of success had the following factors in common: (1) they were based on an ecological model; (2) the visits were undertaken by nurses. The nurses began visiting during pregnancy, visited frequently, and long enough to establish a therapeutic alliance with the family. They addressed systems of behaviour and psychosocial factors that influences mother infant outcomes; (3) The intervention targeted families who, by

virtue of their poverty, and lack of personal and social resources, were at greater risk for health problems of varying kinds. Follow up assessments during the infant's 3rd and 4th year of life revealed that the program had enduring effects on certain aspects of parental caregiving, safety of the home and children's access to and use of the health care system.

Psychodynamic and analytically oriented therapeutic practice has always emphasised the therapist-patient alliance as the main catalyst of change (Gaston, 1990; Horvath & Symonds, 1991; Kiesler & Watkins, 1989; Kokotovic & Tracey, 1990; Mallinckrodt, 1991; Rogers, 1957). The nature of the therapeutic relationship is one of the best predictors of the success of interventions (Barnard et al., 1993). This therapeutic or working alliance, which is a shared sense between clinician and caregiver of working together in the best interest of the infant, creates opportunities to both nurture and support caregiving relationships. Most successful interventions have made establishing and maintaining a therapeutic alliance an integral part of the process. Barnard and Morisset (1995) report that clients who have few social skills benefit greatly from the therapeutic alliance, in that they gain more skills, are less likely to default on treatment, and are made to feel connected, respected and competent.

Prevention interventions should have multiple components, together with the understanding that no single program can prevent multiple high-risk behaviours (Fonagy & Higgitt, 2000). Similarly, Barnard and Morisset (1995) are of the opinion that interventions that concentrate on single influences or risk factors e.g. poverty or maternal risk, are unlikely to be successful in improving the lives of children of the poorest and most at-risk caregivers. For multiple risk families, preventative interventions must be comprehensive, targeting the specific range of factors, the combination of which influence the child's development. Their findings suggest that equal attention needs to be given to the social competence of the mother regarding her

socio-economic status, her caregiving ability and her personal resources and demands. Integration into or close co-operation with other health and/or educational services could further augment the effectiveness of such interventions, and provide greater continuity. A World Health Organisation (WHO, 1999) commissioned review of early interventions, concluded that combined interventions to improve physical growth and psychological development, have a greater impact in disadvantaged populations at risk for malnutrition, than either nutrition or psychological interventions separately.

Limitations of Programs

Realism and humility needs to prevail regarding effectiveness of programs. Even when children who participated in high-quality successful prevention projects showed significant improvements, their outcomes were still more compromised than non-risk children (White et al., 1986). The attempt to enable children from families with multiple risks to emerge as indistinguishable from non-risk peers was unsuccessful. Interventions do reduce indices of life problems in high-risk groups, but they do not prevent serious difficulties for many individuals. However, programs targeted at families with fewer risks do achieve increased levels of higher functioning (Beckwith, 2000). The nature of the sample, especially the balance between protective and risk conditions and factors, affects the degree of success achievable (Beckwith, 2000). Important questions in interventions studies are ‘how generalisable are the effects’, ‘how enduring’, and ‘what are the agents of real change?’

Initially, early interventions were based on stable models of development (Sameroff & Fiese, 2000), on the assumption that any intervention that effected improvement would be maintained into adulthood. However, subsequent findings suggest that this model is too simplistic and that the child’s level of competency at any point in early development is not

necessarily linearly related to competence in later life. Furthermore, the effects of other factors that foster or impede the continuing positive developmental pathway of the child need to be factored into any equation that predicts later developmental outcomes. Beckwith (2000) comments on the fact that prevention science must be aware of the inevitable dynamics changes that occur in development especially in the first year of life. Continuity of specific behaviours is not the core goal of prevention, but successful resolution of developmental tasks as they arise. She questions whether skills and qualities required for one developmental phase are the same for another.

Cultural Factors

Early intervention programs target diverse populations. No individual exists outside of a culture and its narrative. Maladaptation, illness, and suffering are a culture-based subjective experience, and involve culture-based idioms of distress, diagnosis, treatment, and outcome. Cultural values give rise to scripts for caregiving (Dawes & Donald, 2000). A cultural script may, for example, value obedience to authority and respect for senior members of the community as child-rearing goals. Child compliance may be an ingrained tradition in culture, or it may serve the purpose of protecting a child from harm. Such perspectives need to be understood and accommodated in interventions. The meaning of a disorder is internalised by the person through the culture's narrative. Intervention programs also represent their professional community and culture, and all that it stands for. The need to negotiate in such a way that the perspective of the caregiver and his family and culture is included, is paramount, as it will impact on what the client, the family and cultural system will respond to. A person's particular narrative will constitute a body of knowledge and understanding embedded in his cultural meaning system, and planning interventions with this in mind

requires personal reflexivity. Conceptualising the problem is a hermeneutic meaning-creation process, and a multicultural intervention will involve two or more perspectives.

For interventions to be effective, they have to be sensitive to, and accommodating of, cultural values and assumptions (Lieberman, 1989), and understand the community's model of health care or the model to which the individual is accustomed. However, it is also possible for people to hold more than one perspective or paradigm simultaneously, and so an alternate perspective can be negotiated. A client may have experience of one or two different health care systems and understands illness in those terms. Interventions should accommodate an understanding of the assumptions underlying what and how the client makes sense of her life. All aspects of health and 'unhealth' are inextricably linked to the socio-cultural milieu in which they are generated, which cannot be separated from what the individual fundamentally believes about being a person. Each culture will have its distinct notions of how to respond to disease and suffering. The central concern for all mental health intervention is to illuminate and understand the role of cultural factors in the aetiology, expression and the course and outcome of disorder (Dawes & Donald, 2000; Lieberman, 1989).

Section Three: Interventions in resource-poor settings

Interventions in Developing Countries

In developed countries, intervention programs are accepted practice and have become entrenched in policy. However, Shonkoff and Meisels describe how funding and decision-making change with the political climate, and that the field of early interventions is constantly having to negotiate the "dynamic tensions between science, policy, practice, and advocacy" (2000, p. 26).

In developing countries the scenario is quite different. The use of intervention programs to support children's health and development by strengthening caregiver-child relationships, is in its formative stages, and is not established practice. Efforts are being made in South Africa to develop and implement such interventions at primary health care level, e.g. the pilot project undertaken by Richter and colleagues (Richter, 2001b) in the Eastern and Western Cape Provinces. This project investigated the process of implementing a model of a relationship-enhancing intervention in a number of primary health care settings, and recommendations were made to the Department of health regarding the integration of this model into the primary health care service. Another South African study conducted by Cooper et al., (2002) in a peri-urban settlement outside Cape Town, produced some promising results. Although there was no significant effect on maternal depression, the intervention appeared to be of benefit to the quality of the mother-infant relationship, and the results suggest a positive impact on infant growth. The mothers who participated reported feeling well supported by the community workers who delivered the intervention, and were of the opinion that their understanding and management of their babies was enhanced. Unlike their Western counterparts, the mothers did not find the program an unwanted intrusion. Further clinical trials and pilot studies of models are needed to establish a credible empirical basis to support efforts to implement these interventions as formal preventative programs.

The very high rates of depression and anxiety amongst indigent mothers (Cooper et al., 1999, Rahman et al., 2002), for example, highlight the need for cost effective, but theoretically and methodologically sound interventions to be designed, implemented and tested. The widespread dislocation of small children and the further destruction of families in the wake of the AIDS epidemic have made the need for interventions even more urgent, especially in

Sub-Saharan Africa (Smart, 2000; UNICEF, 1999). Many children face the chronic illness and death of their primary caregivers, and large numbers of children are being placed in foster and institutional care. Alternative caregivers will need guidance and support in their care efforts, and would benefit from such relationship-based interventions (Smart, 2000).

Applicability of intervention models for the South African situation.

The two intervention models and two therapeutic modalities described earlier in this chapter (Olds et al., 1993; Barnard & Spieker, 1995; Mc Donough, 1985, 1995, 2000; Fraiberg, 1980) were selected because of their theoretical soundness and their relative success, albeit that their success was established in Western developed countries. Despite their effectiveness, they are in many respects unsuitable for implementation in South Africa. Firstly, they all require highly trained professional staff, and secondly, they are time-consuming and costly interventions. South Africa's health services do not have the required numbers of highly trained staff needed to carry out such interventions (Freeman & Pillay, 1997). In addition, physical infrastructure is inadequate, e.g. few clinics would have a video camera to undertake the Interaction Guidance program. Primary level interventions need to be conducted in PHC settings or community centres, and delivered to groups of clients, as individual home-visiting is too costly, and interventions with individual patients or dyads would only be warranted in extremely problematic cases.

However, some principles central to these interventions are very relevant to any relationship-based model proposed for implementation in South Africa. Firstly, the use of an ecological model on which to base an intervention, is particularly well suited to the family and community structures of the target population. Secondly, the use of Fraiberg's Developmental Guidance and the caregiving information described in all four examples, is

very pertinent, as many South African caregivers have limited education, and are not necessarily familiar with the course of a child's development. Also, the continuity of traditional caregiving practices has been eroded with the disintegration of the family structure. A third desirable concept is the use of the relationship with the intervenor as both an attachment-corrective and emotionally-restorative experience for the caregiver. Another relevant feature of these models is that they are strengths-based, and seek to equip and empower the caregiver.

Some central concepts of the McDonough and Fraiberg methods could be effectively integrated into a group modality in the South African setting, e.g. having the infants present in the therapeutic group, making use of Developmental Guidance as a psycho-educational modality, and modifying Interaction Guidance for use in groups.

The training of staff to carry out these interventions, presents an added challenge.

Paraprofessionals or non-professionals would have to be trained specially for the task.

Concerns may be raised regarding the non-professional workers' ability to carry out these interventions, given their limited formal education. However, there is no empirical evidence to show that non-professionals cannot be trained to carry out therapeutic work. Non-professional staff are employed in numerous community-based early childhood intervention programmes, aimed at improving caring environments (Brooker & Butterworth, 1991; Cooper et al., 2002; Halpern & Lerner, 1987). In addition, community workers generally have a better understanding of the participants, as they share similar circumstances, and are familiar with the community's cultural rules and mores. They also play a key role in encouraging resistant community members to participate in interventions. In addition, the

empowerment of community workers enhances their personal growth, whilst providing them with training and employment.

Creating intervention programmes for developing countries requires time and effort in developing a knowledge of, and sensitivity to, local cultural or sub-cultural norms, values and practices, especially in relation to child-rearing practices, and family structure and functioning. Accommodating these cultural specifics increases acceptability, efficacy and sustainability of a programme (Dawes & Donald, 2000). Some intervention models have been specifically developed for resource poor settings (Cooper et al., 2002; Hundeide, 1991; Klein, 2001). Such interventions have had to be designed and implemented within the constraints of poor resources and limited and costly expertise. ✓

International Child Development Programs (ICDP)

The International Child Development Programmes (ICDP) has formulated programs that aim to enhance compromised caregivers-infants relationships. The aims of these programs are described below. A set of guidelines for therapeutic practice, and a set of aims for caregivers form the foundation of these programs, and are used in the recommendations made in Chapter Seven of this dissertation. The ICDP is a Norwegian-based non-governmental organisation (NGO) headed by Karsten Hundeide, at the University of Oslo. It operates in numerous countries, including Colombia, Russia, Angola, and Macedonia. The ICDP program is community-based, and aims at sensitising caregivers to basic principles of human care for infants and children. It is applicable across a variety of care environments, including mother's groups, infant and pre-school care, hospitals, and welfare institutions. The ICDP recognises that human values become compromised and care declines in conditions of extreme poverty, illness, war, and other adversity. Infants and young children suffer by being

objectified, neglected and abused. ICDP aims to promote care among adults and older children who are responsible for the care of orphans and vulnerable children, including parents, other family caregivers and institution staff.

Formulated by Klein & Hundeide (1989) the ICDP program's aims are to:

- Improve the caregiver's conception of the child and his or her potential for development as well as the caregiver's conception of themselves as a competent and caring support for the child;
- Raise the caregiver's awareness, sensitivity and responsiveness to the affective and communicative needs of the child, and to promote a mutually rewarding emotional relationship between the caregiver and the child. This is based on Trevarthen's work (1983);
- Improve the quality of the caregiver's mediation of the child's learning experiences in everyday situations so that the child is introduced to a shared system of cultural meanings and values. This point draws on ideas by Feuerstein (1980).
- Reactivate and support sound indigenous childcare practices that help caregivers value their everyday activities and which give caregivers meaning and hope in difficult circumstances. These goals are worked towards through a sensitisation programme consisting of experiential, observational, interpretive, practice and shared activities that can be customised for each situation, including the development of local materials and illustrations. The important mechanism of influence is sensitisation and facilitation of emotional communication and mediation, and not the teaching of specific information and skills.

The ICDP programs carry the approval and endorsement of the World Health Organisation, whose Care for Development initiative attempts to promote child development through directed counselling about the importance of communication and play for young children.

Chapter 7

Recommendations for a model for an Early Relationship-Enhancing Intervention

Introduction

The following recommendations are made for developing a model of early intervention for caregivers and infants, to be implemented in a community centre or a PHC setting in South Africa.

Although this intervention program can be adapted for most caregivers groups, including caregivers of institutionalised infants, or of low birth weight (LBW) infants, this particular proposal focuses on an intervention aimed at addressing the problematic relationships between depressed caregivers and their infants. As has been demonstrated in chapter five, depression is potentially detrimental to caregiver infant interactions, and the incidence of depression in mothers with young children, is very high.

Participants would include caregivers from rural or peri-urban communities referred through PHC clinics. Trained field- or community-workers would lead the centre-based group therapy intervention. Mothers and their infants would be expected to attend a group session once a week at the PHC centre. Anticipated demographic features of participants would include poverty, social isolation, low education, the likelihood of no supportive partner in the household, the likelihood of someone in the family having HIV/AIDS, and the probability that the mother is a teenager.

The intervention would target depression in a range of ways: Firstly, through therapist and group empathy; secondly by increasing social contact; thirdly, by focussing on the caregiver's relationship with the infant, which is hoped to achieve renewed enjoyment of the child. The program aims must comply with the abovementioned ICDP guidelines on page 83 of this dissertation.

Negotiating implementation

The intervention could be piloted as part of an existing research program or project, or through a non-governmental organisation (NGO), municipal clinic, or local PHC service. Either way, a process of negotiation with the relevant role-players including key figures in the community, would be essential. Interventions of this sort are likely to lose momentum if not established through appropriately initiated negotiation and approval. The raising of awareness is a fundamental part of the process of initiating and sustaining an intervention project. The intervention needs to be proposed to local PHC services, and the implementation strategies presented clearly. Community leaders would also need to be informed about the importance of the program, and how and why it might be implemented. A period of sensitisation of the community would inform community members of the aims and objectives of the intervention. Key political figures need to be persuaded of the importance of the intervention, especially if plans were to integrate it into the existing health service. Issues such as the type of change the intervention is expected to effect, its cost-effectiveness, and who will be held responsible, would need to be negotiated.

The proposed caregiver-child intervention should be linked to other services, e.g. existing nutrition services or social welfare services. As has been discussed, troubled caregiver-infant relationships are frequently linked to other difficulties such as extreme poverty, malnutrition

and lack of social support, among others. Combined interventions to improve both physical and psychological growth are more effective in disadvantaged populations who are at risk than separately delivered interventions. Integration of services is therefore essential. McLennan and Offord (2002) recommend that programs for caregiver depression be incorporated as part of public health service to promote child development and mental health.

Screening and identification of participants

The main referral source would be PHC nurses, who can be trained to identify caregiver depression. There is also a need to devise a screening device that identifies a problem in the caregiver-infant interactions and relationship. It could identify factors in the caregiver such as withdrawal, depressive features, abusive or neglectful behaviour, or general emotional unavailability. Failure to make use of PHC postnatal follow-up services could be another identifying feature. The screening measure should also recognise problems in the child, e.g. listlessness, failure to thrive, failure to vocalise, or obvious signs of neglect. Such an instrument would need to be easy to administer, and one that PHC staff could use as a routine part of their basic screening and monitoring, during post-natal follow-up visits.

Centre-Based Group Intervention

Limited financial and staff resources necessitate the use of a centre- and group-based approach to intervention. A centre-based group intervention would address a number of problems. Firstly, having participants visit a centre, rather than having nurses do home-visits, renews and increases social contact, which contributes to the amelioration, at least in part, of the problems of social isolation and demoralisation, which are a key feature in depression. Group activity also increases social contact, and shared experiences alleviate the sense of

being alone in one's suffering, and at the same time gives rise to group solutions. Secondly, visits to the clinic could accomplish medical and psychological treatment, simultaneously.

Participants who are depressed, anxious, socially isolated and demoralised, are troubled by negative cognitions, poor morale, low motivation, irritability and intolerance, feelings of helplessness and lack of agency. These are often addressed through shared identification and mutual support and encouragement from group work. Yalom (1995) lists several factors emanating from the process of group therapy. Group therapy instils hope, assists in the development of social skills, and provides the opportunity for interpersonal learning. It also imparts the wisdom of universality, namely, that a group member's suffering is not unique. In addition, the power of therapist empathy, and empathy of group members, is inestimable.

Staffing

Delivery of the intervention would be undertaken by specially trained field or community workers, who will be called 'facilitators'. PHC services customarily employ non-professional community workers to assist in their service delivery. These workers can be thoroughly trained by professionals to undertake the intervention. The decision to use non-professional staff is informed by the limitation of resources and the enormous need for services.

Selection of facilitators is a complex and crucial task. To effectively deliver this intervention a facilitator would need to be empathic, have the ability to take initiative and responsibility, and have an interest in addressing difficulties in their own community. It is helpful if facilitators have prior experience in voluntary work in the health services, as they would then be known and respected by the community. Built into the selection and training, assessment

and screening for unresolved emotional issues may be needed, as working with affectively disturbed mothers can be emotionally demanding. Careful selection, extensive training and supervision that is closely scrutinised, is required, to ensure that the best use can be made of the great potential of non-professional volunteers.

Intervention method

A method modelled on McDonough's 'Interaction Guidance' and Fraiberg's 'Developmental Guidance', is proposed. A parallel process will take place in the group sessions where caregivers will be given opportunity to talk about their experiences and problems as caregivers, and at the same time the interaction between infants and caregivers will be observed by the group facilitator/s. Attention will be drawn to positive interactions, whilst the facilitator will speak for the infant when caregiver awareness and sensitivity appear impaired. This will be carried out in an empathic and non-judgemental manner, providing the caregivers with constructive guidance regarding the infants' needs, capacities, behaviours and intentions, and encouraging sensitive interactions between the caregiver and infant. The aim is that, through increased sensitivity and awareness of the infant as an autonomous yet dependent individual, caregivers' enjoyment and appreciation of their infant will be increased, and the quality of their interactions enhanced.

Training

Before any facilitator can engage in the delivery of the intervention, thorough training is required. Hundeide recommends at least six months of training (1991). The training must increase the facilitators' knowledge and understanding of the importance of the emotional state of caregivers, and of the importance of warm, stable and caring relationships for infant development. A basic grounding in child development is essential. Training must equip

facilitators with enhanced observation skills, as well as techniques in group processes.

Training should also increase empathy for children and their caregivers. A working understanding of the aims of the intervention is also essential, and facilitators would also need to learn and internalise a set of principles that will govern their behaviour as ‘therapists’.

The ICDP provide useful comprehensive guidelines entitled ‘Principles of Therapeutic Practice’ (Hundeide, 1991). According to these guidelines a facilitator must:-

- Establish a contract of trust between the facilitator and the caregiver
- Positively redefine the child by: pointing out positive features and qualities of the child; relabelling negative features; reactivating good earlier memories of the child; and exercises to discover and focus on positive qualities and competencies of the child
- Activate the caregiver in relation to the guidelines for interaction by: self-assessment of interaction exercises; exemplification by caregivers of interactions with their child; and observational activities in relation to the child.
- Confirm caregiver competence in exercise, examples etc.
- Verbalise positive features of interactions and change
- Share experiences in the group
- Communicate with caregivers in ways that facilitate and sensitise, by using
 - a personalised style of explanation and
 - an empathic interpretive approach to describe how the child might experience the situation.

These are operationalised in the training in group techniques, as well as in the observation training.

Observation Training

Facilitators must be trained in observation skills using a combination of training techniques.

Firstly, they will need to learn to identify a range of positive caregiving behaviours, e.g. by identifying them in a role play. Other techniques will include identifying sensitive caregiving

behaviours in video-recordings of caregiver-infant interactions, or to observe behaviour in their interactions with their own children. Once they have learned to identify the behaviour, they will need to evaluate or grade them. Again, video recordings of interactions are useful for evaluating behaviours. Experiential learning must be central to this type of training. Once the facilitators are skilled at identifying and evaluating instances of sensitive caregiving behaviours, as well as instances in which positive behaviours are clearly absent, they will need to know how to respond to these events in real situations. The principles of good therapeutic practice will inform the way in which they react. Practice through role-plays and script writing, as well as discussion and feedback, will facilitate this process. The object of all of this training will be to equip facilitators with skills that they will use to sensitise caregivers to these caregiving behaviours. It is recommended that active training of facilitators continue throughout the intervention period. This should include revision of material, revisiting application of concepts, reinforce learning by experience and practice, and resolving issues raised by caregivers that are not addressed in the initial training.

Supervision

The intervention would have to be monitored and supervised by a qualified professional, experienced in therapeutics and supervised practice. Supervision is an indispensable aspect of the intervention, as well as the ongoing development and training of the facilitators. Fraiberg (1980) and Heinicke (1999), highlight the emotional demands placed on those who work with troubled caregivers and children. It is also recommended that facilitators have access to group psychotherapy support to supplement their training and support them emotionally. Note-taking, as a resource for monitoring the process and progress of the intervention, must be built into the facilitators' training. Facilitators must receive individual and group supervision at least once a week. In individual supervision case notes would be presented to the supervisor, and discussed. Issues of shared interest would then be raised in the group

supervision sessions, inviting suggestions for solutions. Supervision is also an essential tool in maintaining quality, and ideally supervisors should meet regularly, in order to discuss the progress of the work by the facilitators, and the intervention program in general.

Quality control

The control of the quality of an intervention is crucial for achieving consistency and success. At an organisational level, several good housekeeping practices help to ensure quality control. Regular meetings between project leader and all staff involved must be held, and accurate and complete records of meetings, home visits, group sessions and supervision, must be kept. Facilitators would need to keep case-notes of caregivers that have been contacted and interacted with in groups or home visits. Feed back from regional, district and clinic staff would need to be gathered from time to time to assess perceptions of the strengths and weaknesses of the project. The core goal of the intervention must be regularly articulated and reiterated. At an intervention level, the expression of concerns and needs of caregivers needs to be encouraged. These practices contribute to more effective running of the intervention, and more accurate and comprehensive evaluation. The information is also useful for informing modifications and amendments for subsequent interventions.

Ongoing assessment would need to be conducted after the intervention to monitor progress and identify recurrent problems. Precedents suggest that for a more sustained effect, there needs to be on-going contact with mother and child for at least 2 years. It might be useful to arrange assessments to coincide with routine clinic visits, e.g. with scheduled inoculations. In cases of intractable depression, the feasibility of the mother being given an anti-depressant medication at PHC level, once her baby is weaned, would need to be investigated. Further psychiatric assessment may also be required.

Assessment

Assessment is potentially costly and labour intensive. Instruments, suitable for the context, will have to be developed for screening and selecting facilitators, for identifying prospective participants for the intervention program, and for assessing caregiver and infant progress.

Tools for evaluation of the impact of the programme on mother-infant interaction in the short term as well as the child's long-term emotional and cognitive development are required. The performance of the facilitators, as well as the general delivery of the intervention will also need some form of evaluation. These evaluations will help to establish norms and standards for the delivery of this intervention, and will provide a sound basis for recommendations for the intervention to be implemented in other districts and provinces.

Chapter 8

Conclusions

Early childhood intervention programs in developing countries share certain features with intervention efforts in developed countries. In both cases, empirical data and sound theory, linking a target to a given outcome, are critical for the appropriateness of a prevention program. All early intervention programs should be aimed at risk and protective factors rather than at categorical problems, and need to be thoroughly grounded in theory, research and empirically-based formulations of the development of the disorder in question. It is also important to be clear about the theoretical or research basis on which a relationship between intervention and outcome exists. Knowledge of developmental pathways and normative trajectories is vital for the development and design of interventions that will be both stage-appropriate and effective in promoting and effecting positive change. Different developmental stages present different risks, and developmental theory is essential in matching intervention with risks, and with disorders. Early intervention programs are designed to increase the probability of normal developmental pathways in childhood and to decrease potential later disorders. Cultural issues need careful negotiation, for interventions to be effective. They have to be sensitive to, and accommodating of, cultural values and assumptions, regarding illness and disorder.

Intervention programs implemented in developing countries do have some unique features. Resources are limited and infrastructure is poor in these settings. There are limited numbers of trained staff, and intervention programs have to be delivered by specially trained para-professionals and non-professionals, as the use of existing professionals would be too costly and time-consuming. In South Africa, the population is generally unfamiliar with early

intervention programs. Therefore, careful attention to appropriate and thorough negotiations and awareness-raising, at individual, family, community, and provincial level, would be required when initiating the implementation of an intervention program. This promotes willing participation by community members, and increases the chances of interventions being effective. As has been the case in developed countries, extensive and ongoing advocacy efforts are required to raise awareness and support from funders and politicians.

Children who live with adversity are all the more vulnerable to developmental risks, and are particularly dependent on responsible caregivers to protect them. This applies across cultures. Nurturant caregiving has universal qualities, irrespective of the childcare practices, and all humans depend on warm responsive, linguistically rich and protective relationships in childhood, for their development and socialisation into their cultural group. The quality of early caregiver-infant interactions predicts the path of a child's social, cognitive and emotional development.

The developmental tasks that infants and toddlers confront are vastly different from those faced in middle childhood and adolescence. Physiological and emotion regulation, secure attachment, confident exploration, a healthy sense of self, the internalisation of rules, and social referencing, cannot be mediated or mastered without the assistance and guidance of a supportive and stable caregiver.

Adults have the capacity to provide responsive and sensitive caring, but under certain conditions their natural caregiving abilities are compromised. Extreme poverty and persistent hardship, social isolation, the stress of daily living, ill health, caregivers' own parenting

history, affective disturbance and other mental disorder, impair their capacity to be emotionally available and to provide optimal physical and emotional care for their children. In some cases, caregivers simply lack awareness and understanding of the need for such care. Research indicates that simple interventions can effectively address these deficits by reawakening latent capacities or by encouraging caregivers to improve caregiving through appropriately presented guidance, motivation and information.

In the near future millions of infants affected by HIV/AIDS will be in need of alternative care. The potential hazards of institutional care necessitates that interventions for alternative caregivers be undertaken, so that infants in their care may receive the warm, stable and emotionally available nurturance they need for survival and healthy development.

Central to intervention efforts is the belief that children who begin life at risk can be helped, that their development is malleable, and it is incumbent upon society to help such children to reach their potential.

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