Infant Psychiatry: Its Relevance for the General Psychiatrist

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The study of infancy can provide us with new models for the genesis and treatment of psychiatric disorders. It allows us to observe development and can elucidate the contribution the internal and external world make to mental health and disorder. It can also help to define and describe developmental pathways which may be instrumental in creating a resilient or vulnerable adult.

Infant psychiatry is a relatively new, but rapidly growing, subspecialty in child psychiatry dealing with children up to 36 months. While 20 years ago few clinicians were interested in the psychiatric clinical care of infants (e.g. Spitz, 1945, 1946; Burlingham & Freud, 1943; Bowlby, 1951, 1958; Fraiberg, 1959; Provence & Lipton, 1962; Winnicott, 1965), there are now several well organised programmes in North America which provide special training with infants for Fellows in Child Psychiatry. This interest is also reflected in a wealth of recent texts (Call et al., 1983, 1984; Stern, 1985; Minde & Minde, 1986; Emde, 1987; Cramer, 1987; Sameroff & Emde, 1989) as well as national and international journals and organisations which deal with the emotional problems of infants and their families.

Why has the psychiatry of infancy commanded so much interest? Why, according to Tanguay (1989) in a recent editorial in the Journal of the American Academy of Child and Adolescent Psychiatry, is it seen as “The Hot Topic of the Future”?

We propose that the recent growth in the status of infant psychiatry is related to sociological changes in Western society and the dramatic increase in theoretical knowledge of normal and abnormal psychological development of infants during the last decade. Among the wealth of new data, there are four issues that have been specially important for the development of infant psychiatry: infant competence, continuity v. discontinuity of human development, the concept of internal representation, and temperament.

Infant competence and its components

Infant testing has traditionally given us knowledge of what the developing infant and young child may be able to do at different ages (Bayley, 1969). However, it has become clear that, in addition to cognitive and motor abilities, the newborn infant has considerable competence in attending to, and perceiving, affective signals as well as regulating his/her state and motor activity, and communicating signs of that state (Brazelton et al., 1974; Stern, 1985; Aslin, 1987; Berg & Berg, 1987). These capacities appear to have the function of ‘seducing’ the carer into developing a relationship with the infant (Kaye, 1982). These preprogrammed, innate capacities interact with capacities of the carer to create a ‘transactional field’ in which development can then take place. This means that early development and learning depend to a much greater extent than was previously thought on events and event structures that are embedded.
in the relationship with a carer (Kaye, 1982; Stern, 1985).

This underlines two important principles. First, one can assume that during the formation of any pattern of relations there are predictable sequences of observable interactive events which can be confirmed by an outside observer. This implies that relationships, as well as any disturbance in such relationships, are based on real rather than imagined events (Bowlby, 1982; Sroufe et al, 1983). To do justice to the complexities of development it follows that the sequences of formally describable competencies which are observed at different developmental stages require explanations in terms of underlying processes or 'mechanisms'. Our usual differentiation between the physical, cognitive, emotional, and social aspects of development may be adequate to describe the capacities of an infant. They are quite inadequate, however, to give an intimation of the underlying processes which allow for the development and demonstration both of skills, such as language use, and relationships.

The other principle highlighted by the work of Kaye and Stern is that despite the profound interdependence of cognitive, emotional, and physical development, specific events at certain times in early life may influence some areas of an infant's development more profoundly than others. For example, insensitive and inconsistent care during early infancy affects emotional and social development more pervasively than it affects physical or cognitive ability (Ainsworth et al, 1978; Tizard & Hodges, 1978; Arend et al, 1979; Rutter, 1981; Belsky et al, 1984; Egeland & Farber, 1984; Grossmann et al, 1985; Lamb et al, 1985; Hodges & Tizard, 1989).

**Continuity v. discontinuity in development**

Beginning with the work of Emde et al (1976) we have learned that infants undergo well demarcated biologically determined cognitive and emotional reorganisations and behavioural transformations at specific ages (McCall, 1981). Thus at predictable times in an infant's life there occur significant reorganisations of his/her behaviour. For example, at six weeks an infant will suddenly show a social smile, that is, respond to people by smiling. While the specificity of this response is unclear, there is no question that such a smile greatly increases the infant's contribution to the social interactions with his/her environment and consequently can bring about a significant change in the perceptions others have of him/her.

While the appearance of the social smile seems to highlight the 'hatching' of the baby from an inwardly focused organism to a true social being, scientists have identified two further early life periods during which biologically programmed behavioural reorganisations take place. At 9–12 months, infants suddenly utilise their cognitive and fine motor skills to advance significant adaptive and social behaviour; for example, they now look for a toy behind the screen. This tells us that they remember what happened before and are ready to engage in more advanced forms of socialisation.

The final developmental reorganisation of infancy occurs from 18 months onward and is characterised by the increasing predominance of verbal communication and the emergence of symbolic play (McCall, 1981). The more skilful use of language is associated with the ability to recognise oneself in the mirror (Amsterdam, 1972) and in photographs and films (Lewis & Brooks-Gunn, 1979). However, here again, as in other biologically prepared reorganisations, the appropriate acquisition of all these developmental skills is intimately dependent upon the quality of the caregiving environment.

It should be emphasised that these apparently biologically programmed behavioural transformations have powerful effects on the infant's social environment, as an infant can appear to behave quite differently after each transformation. At the same time these biological changes can create the appearance of behavioural discontinuities since a previously 'abnormal' youngster can suddenly be transformed into a 'normal' and apparently well adjusted child.

Modifications in the parent–infant relationship resulting from such transformations usually reflect both the infant's and parent's new behavioural repertoires. The latter are based on the carer's subjective interpretation of new behaviour or intentions of the infant. These interpretations, according to traditional psychoanalytic thinking, follow pathways which were moulded by the carer's own internal structures or representations, and reflect the sum total of the personal compromise between his/her drives and defences as well as social and cultural traditions operating at this particular time (Bowlby, 1982). Psychoanalytic theory has been helpful in establishing constructs which can be used to explore a carer's behaviour retro-actively. However, until recently such constructs had not been validated empirically. This has begun to change owing to the growing body of research in attachment which has led to the empirical measurement of "internal representation" of relationships (Bretherton, 1985).

**Internal representations**

The sense of security or attachment may be achieved initially by a carer's physical holding a young infant.
By four to six months, however, the 'holding' may be done on the knee or across space through the eyes or the voice of the parent (Brazelton et al., 1974). By 10–12 months just looking or sharing an affect may be sufficient to convey to the child that things will be safe and well. Therefore, the process of developing a secure rather than an insecure attachment seems to begin with a carer who is sensitively responsive to an infant's cues and signals of distress. It continues through a more reciprocal relationship in which the infant is an increasingly active participant in seeking proximity to and comfort from the parent (Bowlby, 1982). This suggests that the behavioural transformations of the infant, while they initially seem to produce a discontinuous type of developmental sequence, in fact provide a cohesive system within which the baby and the carers negotiate the regulation of the baby's overall behaviour. It also confirms that it is actual interpersonal events which make up the matrix from which we develop our future internal representations of self and others.

Internal representations are autonomous inner organisations (Sroufe & Fleeson, 1988) which are also called 'internal working models'. This was the term initially used by Bowlby (1973), who stated that "in the working model of the world that anyone builds, a key feature is the infant's notion of who his attachment figures are . . . and how they may be expected to respond" (p. 203).

This means that a working model is the assembly of many specific types of interactions into a larger representation of a person's behavioural and cognitive repertoire associated with certain conditions. Working models, therefore, will gradually change as new experiences are added or old ones are reorganised (Main et al., 1985; Stern, 1985). Nevertheless, there is much evidence which speaks for the propensity for stability of these working models. Thus once these models are established, individuals tend to select partners or form relationships that perpetuate existing working models, even though this may happen unconsciously (Sroufe & Fleeson, 1988). Children and adults alike tend to elicit input confirming their pre-existing models and ignore countervailing information. This tends to make these working models self-stabilising and resistant to change and is an important reason why they may be important predictors for future relationships and tend to be transmitted across generations (Main et al., 1985).

While much work has yet to be done to clarify the development and long-term stability of working models or internal representations in individuals, recent studies in these areas have brought about a potential meeting of minds among those who want to understand the life of an infant from an observational point of view and those who see only the clinical or intrapsychic perspective of the infant (Stern, 1985). In fact, the recognition of the development and course of internal representations has given us a method which may allow us to use our clinical knowledge of an infant to enhance our understanding of the observations of normal infants and to explain how the clinically disturbed infants can build up their subjective lives and how later disorders may be linked to early experiences.

Temperament

Temperament and its contribution to the 'good' and 'poor' fit between a parent and a young child has long been debated among mental health specialists. One part of this debate has centred around the understanding of the construct of temperament, well illustrated in a recent round-table discussion by Goldsmith et al. (1987). Some of the participants felt temperament to be an inherited personality trait with a high degree of stability while others saw it as easily modifiable. For example, Vaughn et al. (1987), re-examining four large studies, found that a high maternal anxiety level, low self-esteem, and aggression and suspicion before delivery were all found to predict later 'difficult' infant temperament ratings.

There is overall agreement, however, that temperamental dimensions are expressed in behavioural tendencies rather than in discrete behavioural acts. Different temperamental dimensions have been described. Thomas & Chess (1977) identify nine dimensions, such as activity level, persistence and predominant mood, while Rothbart (1981) includes fear, distress to limitations, and duration of orienting in her list. Buss & Plomin (1984), on the other hand, identify only emotionality, activity and sociability as temperamental traits.

However, there is general consensus on the biological underpinnings of temperament and the notion that the link between temperament and behaviour becomes more complex as the child matures. For example, even Vaughn et al. (1987) discuss the possibility of either a genetic or a biochemical transmission of temperamental characteristics from mother to infant. Nevertheless, most researchers agree that the expression of temperamental traits can be significantly modified by environmental opportunities and expectations. A good example is a study by Washington et al. (1986) in which 74 small premature infants were given temperament assessments at 3, 6, and 12 months. Thirty-three per cent of these mothers changed the temperamental category of their infants from easy to difficult or vice versa.
between 6 and 12 months. Interestingly, infants who were described as difficult at six months but easy at one year had mothers who were rated more positively on 19 out of 19 caretaking categories during home observations. Their infants also increased their percentage of observed smiles. This suggests that these adept and sensitive mothers were able to modulate their infants' temperamental characteristics because they saw the initial difficult temperament as a challenge rather than a burden.

Differences in the definition of temperament have influenced its perceived impact on overall psychological adjustment and development. For example, Thomas & Chess' designation of a specific cluster of temperamental dimensions as 'difficult' suggests that children with these characteristics are more likely to develop a behaviour disorder because those around them do not develop a 'good fit' (Graham et al., 1973; Maziade et al., 1985). Likewise, Minde et al (1989) recently found that in a group of 64 small premature infants, a difficult temperament at 12 months significantly predicted an abnormal score on a behaviour screening instrument at four years, but not the presence of a psychiatric disorder. As temperament scales and behaviour screening instruments are usually filled in by parents, the concordance between these ratings may be somewhat compromised and the ratings obtained may reflect parental perceptions of these infants rather than actual infant characteristics. Also, there is strong evidence that clinical deviance in young children is often a reflection of multiple factors, of which most are related to shortcomings within the caregiving environment and not to the biology of the child (Sameroff, 1986).

Disorders of infancy: classification

Abnormal behavioural conditions of infancy can be roughly divided into two groups: problems which reflect primarily a disturbance in the current relationship between the infant and the caregiving environment, and symptoms which are early indicators of later disturbances within the infant. The latter often have an important biological component.

While the term 'relationship' is not used in DSM-III-R (American Psychiatric Association, 1987), the official classification of psychiatric disorders in North America, some conditions are indirectly acknowledged to be based on a disturbed relationship between the infant and his/her carers. Disorders of attachment, eating, sleep and adjustment fall under this category. Each of these conditions is defined by listing specific combinations of symptoms deemed essential for the diagnosis. Many of these symptoms, however, such as the failure of a young child to initiate or respond to social actions, reflect a compromised relationship.

Some infant mental health specialists reject the constraints imposed by DSM-III-R. For example, Sroufe (1989) and Anders (1989) postulate that relationships in infancy require adequate and appropriate regulation between partners to function well. Disorders are therefore, in their view, best described as an over-regulation of the carer–infant relationship. Deviance is therefore not seen as a particular set of abnormal types of behaviour as it is in the DSM-III-R classification but defined by the dynamic properties of the relationship. These include, among others, the range, modulation, and attunement of shared parental affects, the joy contained in the infant–carer interactions, and the parents' general sensitivity to the baby. Each, in turn, has to be evaluated in the context of the child's developmental and socioeconomic circumstances. As we have not yet developed acceptable definitions for many of these dynamic properties, for example do not quite know what an adequate attunement or an appropriately shared parental affect implies, this form of diagnosing infants cannot be recommended at present.

There is another distinction between the diagnoses proposed by Sroufe and Anders and those based on DSM-III-R criteria. In the DSM-III-R manual, disorders are defined by the presence or absence of particular symptoms while Sroufe and Anders classify relationship problems as perturbations, disturbances, or disorders. In particular, they define 'perturbations' as transient disruptions in the context of a generally satisfactory family and social support system, brought about by events like a short illness, a move, reactions to weaning, or the birth of a sibling. ‘Disturbances’ are said to be due to a continuing insensitive regulation in interactions and hence are basically risk factors. They affect one domain of development and, at the time of examination, should have been present between one and three months. When a disturbance persists, it can lead to a disorder. Here, inappropriate patterns of interaction are fixed, developmental milestones disrupted, and regulatory dysfunction is seen across several developmental domains.

These concepts are clinically challenging and may well provide a basis for long-term outcome studies of clinical infant populations. For example, one may examine the question of whether and how an infant's capacity to regulate his/her own internal states (e.g. sleep, hunger/satiety, distress) relates to the quality of the caregiving environment. Given that disorders of feeding, attachment, and sleep are often diagnosed
during the first year of life when the infant’s adaptation is so dependent upon the quality of caregiving, and given that carers carry the psychological burden of the relationship during early infancy (Sameroff, 1977), such a study might help us to understand and clarify what contributes to the development and perpetuation of a perturbation or disturbance in early nurturing. It may also tell us what factors need to be present to have a perturbation develop into an attachment disorder, growth failure, or chronic sleep disorder.

**Attachment disorder**

An attachment disorder is characterised by a distortion of the bond of affection which normally develops between infants and carers. Some infants show markedly disturbed social relatedness towards adults, ranging from indiscriminate sociability to persistent failure in initiating or responding to most social interactions. Many infants who were admitted to hospital before liberalised visiting practices or who lived in institutions and were diagnosed to suffer from ‘hospitalism’ (Spitz, 1945) would qualify for this diagnosis today. The disorder, therefore, is invariably associated with varying degrees of inadequate care, including persistent disregard for the child’s basic emotional and physical needs, or repeated changes of primary carers.

The degree to which an insecure attachment as defined in the previous section and an attachment disorder are synonymous is still an open question. In discussions which surround the formulation of criteria for the forthcoming DSM-IV classification, an insecure attachment is seen only as a possible precursor of the disorder, and it is acknowledged that many insecurely attached infants do not seem to develop later psychiatric difficulties (Shaffer et al., 1989). On the other hand, a number of controlled studies have indicated a high co-morbidity between insecure attachment in infancy and a number of well defined infant disorders (Matas et al., 1978; Lewis et al., 1984; Erikson et al., 1983). For example, about 90% of maltreated infants (Crittenden, 1987) have an insecure attachment as measured by the paradigm developed by Ainsworth et al. (1978).

If one adds the fact that about 35% of infants in a wide variety of cultures are insecurely attached to their mothers (Van Ijzendoorn & Kroonenberg, 1988), one can well imagine the importance attachment principles have for the work with infants and their families. This is further underlined by the recent finding by various investigators that there is an impressive correspondence between the security of attachment of a mother and her infant. Thus about 75% of mothers who are rated as having an insecure attachment relationship with their own mother have children who are also insecurely attached (Main et al., 1985). This suggests that we can expect to see a significant intergenerational continuity in this aspect of interpersonal relationships. Disturbances therefore are unlikely to remit spontaneously but often require active intervention.

**Failure to thrive**

Failure to thrive (FTT) is another relatively common problem, estimated to represent 1-5% of all paediatric hospital admissions of infants (Hannaway, 1976; Berwick, 1980). FTT is characterised by a deceleration in the rate of weight gain from birth onward and by weight being less than expected for length, and is associated with varying degrees of malnutrition. The latter, in turn, affects a variety of physiological systems and is believed to contribute to the FTT infants’ impairment in cognitive, motor, and socio-emotional development. Some infants with FTT have associated feeding disorders such as food refusal, pica, or rumination.

Even though controversy still surrounds the definition of FTT, an increasing number of controlled studies show that both organic and environmental factors contribute to the aetiology and perpetuation of growth failure in young children (Bithoney & Dubowitz, 1985; Casey, 1988; Benoit et al., 1989). This suggests that the traditional dichotomy, organic v. non-organic, is both unfortunate and misleading (Sills, 1978; Holmes, 1979; Homer & Ludwig, 1981; Berwick et al., 1982; Woolston, 1985). It also suggests that regardless of possible organic causes, it is essential to examine factors within the caregiving environment that might contribute to the infant’s growth failure. Such ‘environmental’ factors might include a maternal attachment disorder (Benoit et al., 1989), maternal psychopathology (Shapiro et al., 1976; Woolston, 1983), parental substance abuse (Bruenlin et al., 1983), family overcrowding and poverty (Drotar, 1985), the quality of family and marital relationship (Belsky et al., 1984; Benoit et al., 1989; Drotar & Malone, 1982) and lack of an adequate social support system (Pollitt & Leibel, 1980; Woolston, 1983; Bithoney & Newberger, 1987).

Despite the development of many therapeutic programmes, families of FTT infants have been described as difficult to treat. While removing these infants from their caregiving environment often helps improve their calorie intake, eating habits, and growth dramatically, it does little for bettering the relationships with their carers. For this reason, the clinician should include a comprehensive assessment.
and treatment of distorted representations or working models of these infants' carers, together with the more traditional therapeutic approaches which address dysfunctional family relationships and parent-infant interactions, or the parents' own psychopathology.

Sleep disorders

Sleep disorders affect 15–20% of children aged 12–36 months (Richman, 1981). They present as an excess of deficit in sleeping time, a disturbance in sleep patterns, or difficulties in settling down to sleep which have lasted for more than three months, and occur five or more nights a week. A severe sleep disorder is characterised by waking three or more times a night, or waking for more than 20 minutes during the night, or taking more than 30 minutes to settle at night, or being taken into the parents' bed (Richman, 1981). Sleep disorders disrupt family life (Bax, 1980) and are often associated with other current and later behavioural disturbances (Richman et al., 1982). They seem to occur in children who show general signs of poor behavioural organisation (e.g. have experienced perinatal problems and were colicky for more than 10 weeks) or who have carers who are ineffective at consistently setting limits with their infants (Minde, 1988; Minde et al., 1991).

About 70% of these poor sleepers and their families can be helped by simple, direct instructions to parents aimed at providing the infant with a consistent bedtime routine, which may include specific rituals. The use of a transitional object at bedtime such as a favourite toy or blanket and the gradual 'weaning' from the presence of the parent also often helps these infants to 'regulate' their own internal states, that is, teaches them to soothe themselves and fall asleep on their own. These simple interventions appear less helpful to those parent-infant dyads whose problems indicate more serious and pervasive psychological conflicts, including distorted perceptions and interpretations of the infants' behaviour and communication. Nor are they useful with families who show overall chaos and disorganisation in their social functioning (Minde et al., 1991).

Aggression

Another frequent reason for referral to infant clinics is aggression, especially in older infants. These toddlers can be defiant, provocative, or oppositional, directed at one particular carer or sometimes generalised to all carers and other children. Often these children and their parents are caught up in maladaptive transactional patterns characterised by mutually unsatisfying and negative interactions and little, if any, mutual enjoyment. Once again, intervention aimed at modifying the parents' mostly negative perceptions of the child, together with parent guidance on issues of limit setting, consistent discipline, and the provision of a structured routine for the child seem to be most helpful.

Adjustment reactions

Adjustment reactions in infancy can manifest themselves in a variety of ways, ranging from temporary feeding and sleep problems to episodes of increased fussiness and crankiness. Removing the source of stress or distress often helps to improve the child's symptoms. Frequent physical problems in infancy such as ear infections and teething can alter the child's usual sleep and eating patterns and can lead to adjustment reactions. However, reactions to changes in the caretaking environment (e.g. a period of fussiness following placement in day care or other separation from the carer, or increased crankiness or emotional withdrawal in response to a carer's temporary emotional unavailability created by depression) should also be viewed as adjustment reactions to stress. Parenthetically, Sroufe (1989) and Anders (1989) are likely to label these adjustment reactions as 'relationship perturbation' (see above).

Post-traumatic stress disorder

There is some controversy about whether or not post-traumatic stress disorder (PTSD) should be used as a diagnostic category for infants. Because of their limited cognitive capacities, it would seem unlikely that infants under 18 months of age could exhibit symptoms suggesting PTSD. Nevertheless, there are reports in the literature which claim to support the validity of such a disorder. For example, Chatoor (1987) described a special feeding disorder of infants who have been dependent on ventilators and been fed parenterally for at least two months in a neonatal ICU intensive care unit. Clinically, this disorder may take the form of a pervasive food refusal, associated with behavioural responses reminiscent of panic attacks in adults. Chatoor termed this syndrome 'post-traumatic feeding disorder' and felt that it was caused by a combination of frequent intubations with accompanying repeated traumatisation of the oral cavity and lack of practice in swallowing and sucking. This, she felt, prevents these infants from developing a proper sucking and swallowing sequence and creates an acute aversive reaction to food. While the precise aetiology of this disorder is not yet
established, behaviour modification therapy involving progressive desensitisation, positive reinforcement for adaptive eating behaviour, and concomitant training of the carers in the behavioural techniques are often the most effective and rapid therapeutic tools to help these infants.

Another type of PTSD relates to the sequelae of physical or sexual abuse. Terr (1988) has presented well documented case studies which described stereotyped play behaviour of young children mimicking reliably documented traumatic events which occurred before 18 months of age. Other children may develop highly unusual symptoms such as exhibitionism, compulsive public masturbation, regressive behaviour such as faecal and urinary incontinence or smearing of faeces on walls and furniture following sexual abuse. They may also show 'catastrophic' reactions (e.g. hiding behind furniture, shaking, and crying uncontrollably after accidentally spilling a glass of milk following physical abuse) or have nightmares and sleep problems, fears, anorexia, or emotional withdrawal or agitation. Little is known about psychiatric treatment of young children suffering from PTSD, but a combination of desensitisation techniques and more conventional forms of psychotherapy may be helpful.

Pervasive developmental disorder
This disorder is characterised by a qualitative disturbance in the infant's verbal and non-verbal communication skills, reciprocal social interactions and imaginative activities. Such children, who are also called 'autistic', show four main abnormalities: (a) a qualitative impairment in reciprocal social interaction manifested by a marked lack of awareness of the existence or feelings of others, and an absence or severe impairment in seeking comfort, imitation, social play and the capacity to make friends with peers; (b) a qualitative impairment in verbal and non-verbal communication which may be shown by the total absence of a mode of communication (such as communicative babbling, facial expression, gesture or spoken language) or markedly abnormal non-verbal communication (e.g. in the use of pervasive gaze aversion, eye-to-eye facial expression, or body posture) to initiate social interactions; (c) an absence of imaginative activities (e.g. play acting), and marked abnormalities in the production, form and content of speech, including rate, intonation and stereotypes; and (d) a markedly restricted repertoire of activities and interests. The latter is shown in the frequently observed stereotypic body movements, persistent preoccupations with parts of objects, marked distress over changes in trivial aspects of the environment, unreasonable insistence on following routines and a severely restricted range of interests (Volkmar & Cohen, 1988).

The onset of a pervasive developmental or autistic disorder is often difficult to specify, especially at an early age, or when parents have not had experience with other infants. In many cases there are associated symptoms such as an uneven profile of specific developmental skills or moderate mental retardation. A wide range of perinatal conditions associated with brain damage (e.g. rubella and the fragile X syndrome) as well as some forms of severe neglect and abuse can also present with symptoms similar to those seen in autistic children. For example, such children may have no interests or imaginative activities and appear impaired in reciprocal social interactions.

For these reasons, the diagnosis of pervasive developmental disorder is often difficult to make in early life. If it is suspected, a thorough developmental assessment, including speech and language evaluation as well as a comprehensive assessment of the caregiving environment and the carer-infant relationships can often assist in the differential diagnosis (Volkmar et al, 1985).

Other conditions
There are many other situations which can affect the behavioural competence of an infant. Congenital anomalies or disabilities such as blindness, deafness, and cerebral palsy impose dramatic distortions on an infant's experiences and interactions with carers. Furthermore, very small premature or otherwise medically compromised infants may spend many weeks in intensive care units or on special infant wards. They are often subjects to painful medical procedures and their parents may have few opportunities to provide them with experiences which foster a secure attachment or a sense of mastery and autonomy. As such infants often have many 'professional carers', the infant psychiatrist as part of the multidisciplinary management of these infants can play an important role in providing them with more appropriate developmental experiences during and after their hospital admission and help their parents to retain an active sense of parenthood (Minde & Stewart, 1988).

Early signs of other disorders such as hyperactivity or mental retardation will also manifest themselves during infancy. For example, hyperactive youngsters may start out as persistently colicky infants who are later poor sleepers, and unable to engage themselves in appropriate play activities. Children with developmental delay, by three to six months, to take another
example, will also often present as slow and difficult feeders (Minde et al., 1988).

It should be stressed again that any diagnosis of clinical problems in infancy requires the exploration of a variety of possible aetiological and perpetuating factors, whose roots may best be conceptualised on a continuum ranging from primarily biological to primarily environmental. Indeed, both organic and environmental deficiencies often coexist and interact to give the final clinical picture of an emotionally troubled infant with parents who are overwhelmed, insensitively responsive, or have other difficulties enjoying their baby.

**Psychiatric assessment of infants and their families**

The assessment of infants and their families requires particular skills and sensitivity from the clinician. The reasons for this are related, on the one hand, to the very special needs of infants which bind them to their carers and therefore make them understandable only within this interactive system. On the other hand, the behaviour of young children is a reflection of a complex network of biological, cognitive and socio-emotional functions. The clinician must be able to explore the strengths and vulnerabilities of these functions and demonstrate them to the infant's carers. This requires him/her to be an expert on normal child development.

In addition, the clinician must be able to assess comprehensively both positive and negative aspects of the infant's caretaking environment. As the aim of psychiatric intervention is to enhance the caring abilities of those living with the infant patient, this goal must be achieved within a spirit of partnership and co-operation.

**Outline of assessment**

More details on this assessment are given by Minde & Minde (1986).

**Initial interview with parents or other primary carers**

An assessment of an infant may begin with an interview of the parents without the baby or young child. This allows the clinician to focus in more detail on background data of both the child and the family. Areas of inquiry are those used in any standard child psychiatric interview. In addition, the clinician should also learn about the understanding the parents have of their infant's condition and assess the contribution they feel they have made to the problem at hand. As there is increasing evidence of an intergenerational transmission of caring practices, it is essential to inquire about the perception parents have of their childhood experiences with their parents.

**Developmental testing**

Many infants referred to a mental health specialist show signs of an uneven or delayed development. To assess infants and their cognitive, biological and social competency is therefore an important function of the infant psychiatrist.

Available infant tests are either screening instruments (e.g. the Bayley Developmental Scales) or tests which assess the infant's motor, adaptive, language and personal social behaviour (e.g. the Yale Developmental Schedule). While these tests are used to obtain a general idea of the infant's developmental status, they can also be used to assess the quality of the child's relationships and internal structures (e.g. how does John cope when he cannot do something; how does he relate to the examiner or to his parents; has he problems with his attention, etc.?). Finally, such testing allows the clinician to meet the child by 'doing things' together. As experimenting and being active is very natural to a young child, this work together can be an excellent way to get to know a baby and the carers. In cases where developmental delays are identified or suspected, the infant psychiatrist should not hesitate to consult other developmental specialists.

**Play interviews**

Children aged 18 months and older are ideally seen individually or with their parents for two or three play sessions; younger infants are seen less often. Toys should include dolls, animals (both tame and fierce), a doll's house, cars, dishes and cutlery, and two telephones. With young infants, play sessions consist of observing spontaneous play between the baby and the parents, or engaging the baby in more structured play interactions using games such as 'peek-a-boo' or 'pat-a-cake'.

**Evaluation of parenting skills**

Caring comprises many facets and skills, varying from instrumental tasks such as feeding and changing to activities which encourage the infant's emotional and social development (Minde, 1990).

We have found it useful to distinguish between parental characteristics which are associated with an infant's general growth and development – parental emotional and physical health, parental self-esteem, general coping and adaptation skills, attitudes towards...
child-rearing (authoritarian v. democratic), willingness and/or ability to provide developmental encouragement – and those which seem especially important during particular developmental stages of the infant. Among the latter are the following.

(a) The ability to help the infant organise his/her behaviour. This is of special importance during the early months because infants’ adaptive self-regulatory capacities provide them with their first experience of tension release and initial form of mastery over the world. Parents can help in making this capacity more adaptive through learning about the individual characteristics of their baby by building on his/her abilities to achieve harmony and regulation.

(b) Sensitivity and availability of the primary carer. Good parenting is characterised by the sensitive appraisal of a child’s emotional and physical needs and meeting them in developmentally relevant ways. This involves empathic responsiveness as well as age-appropriate limit setting and disciplining.

(c) Stimulation. The variety, spontaneity and richness of the child-rearing environment have long been known to be vital ingredients of a child’s later emotional and cognitive functioning. As recent studies have demonstrated, intellectual stimulation appears to be most effective if it arises out of the joint play with the carer or is pro-actively structured for the child by somebody he/she cares for (Rutter, 1989). This will involve both age-appropriate stimulation and a ‘stimulus shelter’ where a child can escape for quiet moments alone.

The relevance of infant psychiatry for adult psychiatrists

What does infant psychiatry teach us about adult functioning that can assist us in our clinical work with adult patients?

(a) Development is not just a childhood phenomenon but continues all through life (Erikson, 1963; Minde, 1987). As the rate of developmental change is especially rapid in infancy, the study of babies and young children provides us with a unique insight into the forces shaping development. Nevertheless, the principles which govern development in infancy maintain their relevance all through the lifecycle. Indeed, past experiences are continually reworked by present circumstances (Eisenberg, 1977) and their psychological effects can be modified by critical later experiences (Bowlby, 1988; Rutter, 1989).

(b) Infants show clearly how we actively shape the world we live in. This has important implications for the genesis and treatment of many types of adult maladjustment such as depression and various forms of anxiety disorders.

(c) Infants are biologically primed to interact with other human beings from birth onwards. This is a powerful reminder of the pervasive importance relationships have for any human activity. In fact, there is recent evidence that the quality of attachment in adults as measured by the recently developed Adult Attachment Interview (George et al, 1985) reliably reflects particular internal strategies (probably unconscious) which adults use for dealing with thoughts, memories, feelings and behaviour associated with past and present attachment experiences and relationships. Furthermore, adults who are classified as insecure in their attachments are greatly over-represented in parent populations of young children who display maladaptive behaviour (Main et al, 1985; Crowell & Feldman, 1988; Benoit et al, 1989, 1990). Yet a number of authors have also demonstrated that the expected degree of adult psychopathology following disordered parenting can be significantly altered if a child can establish new relationships with helpful adults later on in life (Main & Goldwyn, 1984). This appears to provide an optimistic assessment of the power of psychotherapy (Bowlby, 1988; Rutter, 1989). Finally, there is increasing evidence that social relationships play an important role in the regulation of internal biological systems throughout life (Hofer, 1984). For instance, grief following the loss of a loved one is often associated with physical manifestations such as anorexia and insomnia, both in children and adults.

(d) The study of Infants clearly documents that development has to be understood within the context of the environment, that is, the family and other ecological systems. Much psychiatric illness likewise can be conceptualised within such a framework as recent work on depression (Brown et al, 1985), schizophrenia (Leff & Vaughn, 1981) and adult antisocial behaviour (Robins, 1978) has shown.

(e) The study of Infants strongly suggests that many psychiatric disorders of children and adults are based on the response to real rather than imagined adverse events. These events may lead to faulty representations or cognitive constructs (Rutter, 1986) or ‘working models’ (Bretherton, 1985) which then influence our strategies for dealing with specific thoughts, feelings and behaviour later on. The recent interest in cognitive therapy for depression and other emotional disorders which aims at changing the cognitive appraisal a person has of specific situations seems to be in line with this conceptual model.

(f) Finally, infant psychiatry has renewed our interest in parenting and the type of relationships which further coping and health (Minde, 1990). While it was previously thought that maladaptive parenting had to do with the paucity of conversation...
or play between carer and child or with the wrong type of discipline the child received, we are now aware of a much wider range of personal, social and family variables, which determine parenting competence.

References


Benoit, D. C. & Barton, M. L. (1989) Maternal and family variables, which determine parenting awareness of a much wider range of personal, social and family variables, which determine parenting competence.


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