

Measuring Adaptation in Middle Childhood:  
The Development of the Hampstead Child Adaptation Measure  
(HCAM)

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## ABSTRACT

Despite the important developmental tasks and prevalence of psychopathology encountered during middle childhood, this aspect of maturity remains relatively neglected, particularly in the area of treatment effectiveness. In the absence of such research findings, statutory authorities responsible for health, education and social services are currently funding therapy interventions for children, with little evidence of which interventions are most effective for specific disturbances and age groups.

Although research in this area is increasing, one significant obstacle prevails, the absence of psychometrically sound measures appropriate for outcome assessment. This thesis presents the development of the Hampstead Child Adaptation Measure (HCAM), an interview-based protocol designed to address this issue by measuring adaptive and maladaptive behaviour, while remaining sensitive to change due to therapeutic intervention.

A review of the literature concerning adaptive and maladaptive development in middle childhood is presented as are the issues concerning assessment of functioning in children. Manualisation of the HCAM ratings and interview protocol is introduced including reliability between raters. Psychometric properties of this measure are established, including consistency over time; an attempt at the standardisation of the HCAM on a normative UK population. Concurrent validity of the HCAM in relation to measures of symptomatology, mood, psycho-social adjustment and adaptation are also investigated. Two longitudinal studies, following children over two, then three years, are presented and finally discriminant validity is investigated in a study comparing the normative sample with a clinically referred sample of children. These findings are discussed in relation to evaluation needs in evidence based service delivery and alternative measures of the functioning and adaptational domains.

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## DEVELOPMENT IN MIDDLE CHILDHOOD

### CHAPTER SUMMARY

The aim of this chapter is to outline the relevant theoretical thinking concerning development and maturation in middle childhood. Developmental theories will be explored first, setting the context within which functioning in middle childhood may be examined. Characteristics of adaptive and maladaptive behaviour are also presented, particularly in relation to common experiences for this age group.

### 1.1 CONCEPTUALISING DEVELOPMENT

A browse through any bookstore or academic library illustrates the consideration given towards childhood. The accumulated wisdom covering parental concerns and professional interest covers all areas of development, from toilet training to causes of adolescent delinquency. Despite this, there is not yet a universally agreed paradigm within which development may be understood, or even a consensus on when milestones are most appropriately reached. In addition, a closer inspection reveals that the majority of thought on development has been directed towards the lower and highest ages of childhood; birth through toddlerhood and again in adolescence. Middle childhood, in contrast, receives far less attention, despite the extraordinary challenges of, and the transformations that occur during, these school years.

This chapter presents the existing theories of development in middle childhood. While it is not the aim of this chapter to cover each theory in inordinate detail, it will summarise the different approaches available, providing a context within which the goals of middle childhood may be understood. Particular attention will be given to the adaptive and maladaptive responses to common experiences of this age group, and how functioning relates to the existing theoretical frameworks available.

The majority of existing theories can be traced to an historical divergence between the thinking of two pioneers of child psychology, Locke (1689) and Rousseau (1750). The former tradition, which includes the modern behaviourists Pavlov (1927) and Skinner (1938), focuses on the ways in which children's thoughts and behaviours are structured

by the environment, most relevantly, parents, teachers and other professionals. Children in this context are products of their social environment. For example, a child who shows an interest in putting blocks in a line must have been taught this behaviour by someone around her. Members of the latter tradition, including modern theorists such as Montessori (1917) and Piaget (1923), are more interested in the intrinsic development of children and the ways in which they use stimulation in the environment to satisfy their desire to learn. Notable challenges to these two positions have examined the nature and character of development (Morss, 1996) and the socio-political practices associated with developmental psychology (Burman, 1994). All three approaches will be presented below, beginning with those theorists focusing on the processes underlying maturation.

### 1.1.1 FOCUS ON PROCESSES & STRATEGIES

There are a group of theorists who emphasise the processes and strategies employed by children as they mature, specifically in relation to their interactions with the environment. These theories stem historically from Locke, who argued that children were initially empty, a *tabula rasa* or blank slate, waiting to be filled, that is the environment shapes the mind (Locke, 1693). Accordingly, children learn through two ideas regularly occurring together, called associations, through repetition and imitation of action, and most importantly, through a series of rewards and punishments. A number of modern theorists have developed these ideas, forming what may be termed the Learning Theorists.

#### *Pavlov's Learning Theory*

Pavlov is best known for the classical conditioning paradigm (Pavlov, 1928). In a typical experiment, a dog was placed in a restraining harness in a dark room and a light was turned on. After 30 seconds some food was placed in the dog's mouth, eliciting the salivation reflex. This procedure was repeated several times, each time the presentation of the food was paired with the light. After a while the light, which initially had no relationship with salivation, elicited the response by itself. Pavlov termed the presentation of food an unconditioned stimulus (US), because he did not need to teach the dog to salivate; the light he termed a conditional stimulus (CS); the effect of salivating

in response to the CS he called a conditioned reflex (CR); and the entire process itself was he coined Classical Conditioning.

In his description of this process of learning, Pavlov described other characteristics of learning theory, namely extinction (a CS, once established, does not continue to work indefinitely) and stimulus generalisation (different stimuli will generate the same CR, although this will gradually give way to a more discriminant behaviour). Pavlov also discussed the idea that once a dog was fully conditioned to a CS, that CS alone could be used to establish connections to another stimulus (higher-order conditioning).

### *Watson's Expansion of Learning Theory*

Watson (1928) argued that the study of development through introspection has no place in psychology as a science, arguing that only overt behaviour was ultimately appropriate for study. He became the first psychologist to apply Pavlovian principles of learning to the development of children.

Watson's particular interest was in the study of emotions and he claimed that at birth there were only three unlearned emotional reactions: fear, rage and love. These reactions are physiological responses, and it is only through association that the infant learns the emotional component. For example, the infant's mother's face often appears along with patting, rocking and stroking and, so it becomes a conditioned stimulus which alone elicits the feeling of love towards the mother. Later, people associated with the child's mother will also elicit the same response. Watson demonstrated this theory by using classical conditioning to 'teach' a young boy, Albert, to be fearful of a rat, thus embarking on the first behavioural modification technique (1928).

### *Skinner's Operant Conditioning*

Like Watson, Skinner (1938) was a strict behaviourist, believing that psychology should dispense with any references to intangible mental states. However, Skinner did not base his conditioning on Pavlovian ideas, instead his interest lay in operant behaviour, namely the behaviour of an animal operating in an environment. His principles of reinforcement

and extinction have shown that behaviour may be controlled by the reinforcement of a stimulus, most famously in the Skinner Box (1959).

### *Bandura and Social Learning Theory*

Bandura (1962) expanded upon the previous work by placing learning theory in a social and cognitive context. He argued that the most rapid pace of learning is acquired through observation. That children are able to learn without trial, by observation alone, there must be some reliance on inner representations of the behaviour which ultimately guides their actions. This cognitive process separates Bandura from previous learning theorists such as Skinner. This observational learning is extended to include the trial and error of others and symbolic models such as verbal instruction.

One of Bandura's major concerns has been the process by which children become social beings, acceptable and compliant to the societal norms in which they live (1969). For example, he explains aggression in terms of operant conditioning, parental punishment or reward for inappropriate or acceptable forms of aggression. Sex roles are also influenced in this way. Specifically, children frequently learn, through observation, the behaviour of both sexes, however, they usually perform only the behaviour appropriate to their own sex because this is what they have been reinforced to do. Social learning theorists have been instrumental in addressing the roots of pro-social behaviour, arguing that acts of sharing, helping, co-operation and altruism may be readily influenced by exposure to appropriate models. Children may also learn through practice and preaching, although these must be supported with appropriate actions (Bandura, 1977). By exploring the ways in which children learn to behave, social learning theorists offer a valuable tool to address behavioural distortions and maladaptive behaviour.

### *Summary*

The theorists presented in this section view development as a process through which children move from birth to adulthood, learning through their interactions with the environment. By understanding this process, adults concerned by a child's behaviour may address the mode of learning, altering environmental circumstances or social contexts. This conceptualisation of maturation serves as an important tool for

understanding childhood behaviour, although critics have pointed out the need to acknowledge the role of biology and the child's own inner drives. These are addressed in the section below.

### 1.1.2 FOCUS ON STAGES

Contemporary theories following the historical routes laid down by Rousseau (1750) emphasise the developmental stages children pass through on their way to adulthood, the importance of their internal drives and the dynamic relationship with a stimulating environment; they map the stages children pass through during maturation. The most influential models of childhood stages were devised many years ago, but remain influential in writing and teaching. They share common characteristics that separate them from other types of theories (Crain, 1992). Firstly, the stages are sequential. Some theorists, like Piaget, do not anchor stages to specific and fixed ages, but all will expect a child to move from one stage to another in the specified order. In addition, each stage is dependent on the successful emergence from the previous stage (Piaget, 1936). Some theorists propose that previous stages are integrated into the child's character and revisited when required, while others see each stage as a stepping stone to the next and abandoned when successfully completed (e.g. Kohlberg, 1964). However the theory is portrayed, it is important that each stage is sequentially and necessarily visited in a specified order.

Secondly, a stage refers to a series of generalised characteristics. By knowing a child is in a particular stage, an observer should be able to predict a number of specific behaviours. Equally, absent or unexpected behaviours would represent possible maladaptive or delayed functioning, allowing forward and reverse prediction.

Thirdly, description of stages should contain enough rigour to be applicable in different cultures. It is this characteristic which separates stages of development from descriptions of behaviour. For example, different cultures may have different attitudes towards morality, but two children in the same stage from different cultures will understand and think about those attitudes in similar ways, regardless of their conclusions or beliefs (Crain, 1992).

The most enduring characteristic of the developmental theories focusing on stages, is the implication that growth can be divided into qualitatively different periods. In theories focusing on process, discussed above in section 1.1.1, development is seen as a qualitatively similar process along a continuum, 1 to 100 for example. In this case, dividing the continuum into sections would be arbitrary. In contrast, stages imply separate and distinct characteristics between periods that require recognition as independent intervals of development.

### *Early Developmental Theories*

Rousseau (1750) offered the first stage theory of child development. He identified four stages: infancy (birth to two years), childhood (two to twelve years), late childhood (twelve to fifteen years) and adolescence, each unfolding according to the same stage criteria identified previously. This theory was the first time someone proposed that development unfolded according to an inner, biological timetable, independent of environmental influences. Rousseau supported his views with the theoretical education of the child Emile, who would be taught according to his own inner need, not that of adult society. The most notable difference would be Emile's ability to judge according to his own power of reasoning, rather than imposed social conventions (Rousseau, 1750).

Gesell (1946) expanded upon Rousseau's idea of internally driven needs and studied children's development so thoroughly that his records of behavioural norms are still considered the primary source for medical professionals (Crain, 1992). His close observations, utilising film for the first time in a research setting, suggested several principles of growth, based mostly on the recognition of patterns. For example, one such example, reciprocal interweaving, emphasises the bilateral characteristics in humans and addressed the process by which two tendencies, i.e.. the use of left and right hand, gradually reaches an effective organisation, e.g. right handedness.

Gesell shared Rousseau's desire to apply developmental thinking to practical applications and discussed his ideas of maturational development to child rearing practices. In particular, Gesell emphasised the importance of following the child's own biological readiness to learn, and not imposing an artificial, external schedule. Rousseau's and Gesell's approach to the developing child marks a radical change to child psychology.

Acknowledging the presence of a state of maturation, which may not be hurried, altered or otherwise transformed, changes the dynamic between child and caregiver/education. Success or failure of functioning no longer depends on the child's success in incorporating the adults' teaching alone, but on an interaction between the adult, the environment and the child's biological impetus for growth. In addition, the presence of linear stages and developmental milestones enables the discussion of children in terms of how close or far away their individual development matches those set out in the theory.

### *Ethological Approaches*

The idea of interaction between child, adult and biology opened the way for the ethological approach, initially through the work of Konrad Lorenz (1935). Ethologists are interested primarily in instincts and relate human behaviour to those of other animal species. An instinct is a behaviour released by a specific external stimulus with an inner urge to engage in that behaviour, which is called a drive component. Lorenz discussed the survival value that instincts hold for a species and the phenomenon of imprinting, where information is encoded into the animal's behaviour during a critical moment. In a famous example, several goslings, having imprinted on Lorenz, are shown in a photograph to be following Lorenz in the same straight line as if he was their same-species mother (Lorenz, 1952).

Perhaps the most important concept put forward by Lorenz was that of critical periods, a duration of time when an instinct is most sensitive to environmental stimulus. In the above example, the goslings are receptive to following a live object for a set critical period, during which time they will follow a number of stimuli presented. After this period however, the stimulus will not generate the same response. Lorenz discussed the process by which animals learn the releasing stimuli for their social instincts, in particular, young animals learning which moving objects to follow. He argued that young animals begin with a willingness to follow a wide range of objects, but this range quickly narrows, and at the end of the imprinting period, they will usually follow only the imprinted mother. At this point, the response limits their ability to form new attachments. In humans, a similar process is observed, although it develops more slowly. During the first few weeks of life, infants cannot actively follow objects, but are able to direct social responses toward people. They smile, babble, grasp, etc; all of which keep people close.

At first these responses are directed indiscriminately, however, by six months they have narrowed to a few people, and one in particular. Soon, they begin locomotion and will follow their principal attachment figure whenever s/he departs, in Lorenz's terminology, they have imprinted.

### *Attachment Theory*

The ideas first explored by ethologists have generated a school of thought which continues to make enduring and insightful contributions to developmental theory, that of attachment (see Cassidy & Shaver, 1999). Bowlby (1969/1982, 1973) first put forward the idea that human behaviour can only be understood by considering its adaptedness to the environment. He proposed that the environment for humans was one of social attachments and that observation of infants' behaviour reveals many instances of this. For example, a baby's cry is a distress call, demanding attention from caregivers, while a baby smiling generates feelings of warmth, love and affection.

Advancing these ideas, Mary Ainsworth and her colleagues (1978) developed a procedure in which researchers closely observe the responses of toddlers left in a room with a stranger for three minutes. The procedure, called The Strange Situation, revealed three basic patterns of attachment. The first, securely attached, describes children who use their mother as a base from which to explore the room. At mother's departure, the child's play diminishes and they usually become visibly upset. At mother's return, they actively greet her, remain close for a few moments, and then happily venture back into the room again. Home observations find the mothers of these children to be sensitive and promptly responsive to their infant's signals. The second type, insecure-avoidant children, appears independent throughout The Strange Situation procedure. Their exploration of the room does not include using the mother as a secure base, nor checking with her from time to time. They do not become upset when mother leaves the room, and do not seek proximity when she returns. If their mother tries to pick them up, they avoid her, turning their bodies away or averting their gaze. Home observations reveal these mothers to be rated by Ainsworth and her team as relatively insensitive, interfering and rejecting of the child's cues. The last category, insecure-ambivalent, describes children who are preoccupied with their mother's whereabouts to such an extent that they are not able to explore the room. They become extremely upset when the mother



departs and are markedly ambivalent towards her when she returns.; reaching for her, then angrily pushing her away. Home observations reveal mothers who are warm and responsive on some occasions but not on others.

A number of current researchers have shown attachment behaviour remains consistent over time (Sroufe & Cooper 1988; Vaughn & Bost, 1999) and influential on later development, while attachment theory is becoming increasingly considered in therapeutic and service contexts (Rutter & O'Connor, 1999;). The culmination of this work, beginning with the ethologists, has offered a great deal to the understanding of childhood behaviour. Behaviours, seen previously as without meaning, are now understood to be innately programmed signals, generating social responses of attachment in the surrounding adults, and even generations, and ultimately species survival. The realisation that children's behaviour, their adequate functioning and adaptive responses, are dependent upon the appropriate and timely responses of their caretakers. Before it is possible to alter children's behaviour, an appreciation of how that behaviour follows nature's plan for healthy development is required.

#### *Piaget's Cognitive Developmental Theory*

Piaget is regarded by many as one of the most influential developmental theorists of the 20th century and the majority of later theorists contrast their ideas with his. The foundation of his work, the close observation of his own children, continues as a tale of folklore in the history of psychology (Piaget, 1923).

Piaget organised behaviour in terms of stages of development. However, he did not suggest that these stages were built into the genetic code of the child, to unfold according to a particular timetable. Piaget believed children passed through periods of development in an 'invariant sequence', irrespective of age, and in accordance with the child's interactions with the environment.

The stages he outlined represent increasingly complex and comprehensive ways of thinking. Piaget believed that by constantly exploring, manipulating and trying to make sense of their environment, children actively construct new and more elaborate cognitive structures for dealing with it (Crain, 1992). This active learning is supported by biological

tendencies he felt were found in all living organisms, that of assimilation, accommodation and organisation (Piaget, 1926). Piaget's stages cover birth to adulthood and are summarised below in Table 1.1.1.

TABLE 1.1.1: PIAGET'S DEVELOPMENTAL STAGES

STAGE	AGE	CHARACTERISTICS
Sensori-motor Intelligence	Birth – 2 yrs	Babies organise their physical action schemes, such as sucking, grasping and hitting, for dealing with the immediate world
Pre-operational Thought	2 – 7 yrs	Children learn to think, to use symbols and internal images, but their thinking is unsystematic and illogical.
Concrete Operations	7 – 11 yrs	Children develop the capacity to think systematically, but only when they can refer to concrete objects and activities.
Formal Operations	11 yrs - Adulthood	Young people develop the capacity to think systematically on a purely abstract and hypothetical plane.

Piaget differs from other stage theorists in a number of ways. The first has already been mentioned, namely, his belief that each of his cognitive periods would occur in turn, but were not necessarily linked to a specific age. Secondly, while the child's increasing cognition is dependent upon interactions with the environment, it is the child, and not the environment or adult agents, who add to the complexity of the child's cognition. "Development, then, is not governed by internal maturation or external teachings. It is an 'active construction process', in which children, through their own activities, build increasingly differentiated and comprehensive cognitive structures." (Crain, 1992, p.103).

Piaget identifies a series of abilities during middle childhood, or concrete operations, which present the child specific challenges and capacities (Piaget, 1936). These are centred on the child's use of symbolic thoughts to do and undo actions, while keeping in mind two opposing perceptions. A famous example of this is Piaget's conservation of liquid task. Using three liquid containers, two of identical vertical shape and one of a wider, shorter size, the task requires the child to perceive that the liquid in all three containers is of the same quantity. To achieve this the child must understand that change in one perception, height, is equal to change in another, width; and to achieve that, the child must understand that pouring the liquid in the third container is a reversal of the original state.

This cognitive skill shapes the development of middle childhood and consequently the qualitative characteristics of adaptation. For example, Piaget discusses the moral

development of a child as dependent on the ability to think about rules, in particular, if those rules are fixed or relativistic. He observed that before the ages of seven, children frequently do not play integrated games, instead they play side by side in their own way. However, by age ten children can not only follow an agreed set of rules but will spend a great deal of time negotiating the subtleties involved, frequently leaving an adult observer wondering if the pleasure of negotiation far outweighs the game itself. Successful peer interaction is dependent on a child's ability to engage in a great deal of co-operative play, where rules are changed to everyone's satisfaction, often minute by minute.

While many of Piaget's ideas are still present in the literature (Berti & Bombi, 1988; Mathews et al., 1992, Smith & Cowie, 1991), many of the details of his ideas have been modified or even overthrown by later investigations (Cox, 1980; Donaldson, 1978). Individual and cultural variations are much greater than Piaget acknowledged, whilst children's reasoning strategies are not uniform at any given age, but may take one of several forms dependent upon the context. According to Rutter and Rutter (1993) the notion of children as active agents in learning has stood the test of time, but the idea of invariant stages 'has turned out to be rather misleading' (p.193).

### *Kohlberg's Stages of Moral Development*

Kohlberg (1958) expanded Piaget's studies of moral judgement from a two-stage shift, into six stages of increasing moral complexity. His work centred around the now well known moral dilemma of Heinz, who must choose between stealing medicine from a chemist who would not sell the drug at an affordable price, and not breaking the law, although his wife will die without the drug. He asked children to decide what Heinz should do in the face of such a decision and concluded six stages of moral development, outlined below in Table 1.1.2.

TABLE 1.1.2: KOHLBERG'S STAGES OF MORAL DEVELOPMENT

LEVEL	STAGE	CHARACTERISTICS
Preconventional morality	Obedience and punishment orientation	Morality is seen as something external, such as God, and decisions are based on the consequences involved.
	Individualism and exchange	Different people's viewpoints are acknowledged, deals are exchanged and punishments are proof that something was the wrong thing to do.
Conventional morality	Good interpersonal relationships	Good behaviour is linked to intentions and interpersonal feelings and concern for others.

	Maintaining the social order	Society as a whole is the emphasis for good behaviour, including respecting authority and performing one's duties.
Postconventional morality	Social contract and individual rights	Questions the importance of upholding an unjust societal rule, looking instead for respecting individual rights and the existence of democratic procedures for changing injustice.
	Universal principles	A philosophical construct of justice, giving impartial respect to all individuals and requiring looking at a situation through the eyes of all involved. Dropped from original coding and re-labelled a 'theoretical stage'.

Kohlberg shared Piaget's position that the moral developments represented in each stage are not linked to a genetic blueprint or the strict product of socialisation. Instead, children develop their own thinking about moral problems, stimulated from the environment and their own mental processes. Also like Piaget, he ensured his stages represented qualitatively different periods, that they were general patterns of thought rather than isolated responses and followed an invariant sequence.

This last point was of particular relevance to Kohlberg, who postulated that each new stage provides a broader framework for dealing with moral issues and would integrate previous thinking into current and future stages. There is some research which suggests that most urban middle-class adults in the United States reach level four functioning, with a small percentage using some stage five reasoning. However, in the isolated villages and tribal communities of many countries, it is rare to find any adult beyond stage three (Cole & Cole, 1989; Edwards & Klockars, 1981). This is consistent with Piagetian thinking, which suggests that environmental factors do not teach or shape a child's thinking, but offer stimulation which the child uses to challenge, and motivate their thinking. The interpersonal ties making up small communities and tribes may not be challenged to the stage three thinking because of the presence of strong cohesion and group agreement.

### *The Psychoanalytic Tradition*

Psychoanalytic theory differs somewhat from the previous stage theorists in that the emphasis is not on motor or cognitive changes, but on the child's inner world. Freud's work, primarily with adults, led him to believe that sexual feelings were active in childhood and that these feelings, though general and diffuse, could be grouped together into stages. The oral, anal and phallic stages refer to areas of the body most sensitive to stimulation and exploration. Freud postulated that during the period of middle

childhood, known as latency, a cessation of sexual urges would allow the child to focus fully on cognitive learning and social adaptation (Freud, 1908).

Erikson (1963) developed a more rounded psychosocial theory, which encompassed emotional and social, as well as sexual, development. Like Freud, he saw early childhood as a busy period in which positive care led to important achievements: trust, autonomy and initiative. While the first five years encompassed three stages, Erikson characterised the years from eight to thirteen as one stage, that of industry. He emphasised the importance of establishing a foundation for learning, not only for achievement, but also for self-worth.

### *Summary*

The previous sections presented developmental theories concerned with stages of maturation in childhood. Stages, in this context, are understood to be a group of enduring universal characteristics which follow a linear pattern and which may be used to predict behaviour. By categorising characteristics in this way, children's behaviour may be compared to an accepted norm, or understood to be adaptive or maladaptive. The importance of understanding a child's current stage of development can also have implications for adults hoping to address impaired or delayed functioning. For example, a child who is firmly rooted in concrete operations will have trouble learning abstract concepts, such as fractions, from verbal instructions or representative diagrams (Montessori, 1948; Piaget, 1947). It would be far more appropriate to engage the child in the separation of concrete objects into sections. These principles underpin the educational approach of a number of educators such as Montessori and Rousseau (Flavell, 1963).

Despite the enduring qualities of this stage approach to development, there are a number of difficulties with focusing on children in this way. For example, the majority of analysis has centred on the establishment and refinement of the stages themselves, while little discussion has been reserved for how movement from one stage to another is facilitated. There is also a question of whether or not cognitive processes translate into action, for example, is moral thinking the same as moral acting? Lastly, little work has been done to match each of the stages of the different theories. While it is universally recognised that

no one theory can encompass all of development, moving fluidly between theories is, as yet, an unrealised goal.

### 1.1.3 CONTEMPORARY CRITIQUE OF DEVELOPMENTAL THEORY

Sections 1.1.1 and 1.1.2 above outline the diverging trends of developmental psychology influencing current theory and practice. This section addresses current critiques of these ideas, focusing as much on theoretical conclusions as on methodological execution. Most globally, Morss (1996) presents questions concerning the practice of thinking developmentally in any context, challenging the underlying assumptions at work in the interpretation of the major theorists and presenting alternative narratives. He identifies four chronological phases of psychology: Traditional, Social Context, Social Construction and finally, Critical Psychology.

The Traditional group, represented most frequently in journals supporting an epistemological commitment, assumes that maturational change is natural, linked to biological, and often evolutionary, precepts. Traditional psychology sets itself the task of uncovering universal and natural processes in a relatively stable environment, Piaget most typically representing this group.

Social context psychology raises concern over the paucity of social factors discussed or even acknowledged in the traditional domain. Piagetian tasks, for example, have been shown to be dependent upon the communicative context under which the experiment is conducted. In this framework, researchers like Vygotsky understand children and adults to be naturally social, applying this as much to internal process, such as thought, as to external behaviours (Vygotsky, 1962). Social context remains a leading influence in developmental psychology, frequently combined with the Traditional. This is not the case with the Social Construction approach, which opposes quantitative methodology (see Harré, 1972; Shotter, 1974).

Finding the work within Social Context inadequate, the work of the Social constructionists investigates the ‘...interpersonal processes through which humans create the reality they experience.’ (Morss, 1996, p.6), rejecting most particularly the cognitive focus of the previous frameworks.

Lastly, Critical Psychology attempts to locate developmental psychology within an economic and historical context. For example, Burman (1994) highlights the association between academic research and social policies and practices. In this sense, Critical Psychology brings together earlier preoccupations of social, political and contextual variables in the study of development and application to research methodology and social design.

The above sections have briefly outlined relevant theories and critiques of developmental maturation during middle childhood. Despite the importance of this age range, there remains little consensus or cross-comparison of ideas. Some theorists may emphasise the child's interaction with the environment, and others with internal motivations, but none can encompass the full range of children's behaviour. When children's behaviour is seen in the context of its adaptiveness, this paucity of information becomes more pronounced. The following sections of this chapter address adaptive and maladaptive functioning in middle childhood directly. Specifically, what types of behaviour may be considered adaptive in the context of the child's developmental stage and what are the consequences on the child's functioning.

## **1.2 ADAPTIVE AND MALADAPTIVE DEVELOPMENT IN MIDDLE CHILDHOOD**

A well-adapted child is one who successfully acquires developmental skills and applies them functionally to manage daily activities (Zeitlin & Williamson, 1994). Children evolve from a state of near total dependence to greater and greater integration and autonomy. The process is applicable to all children, and unfolds through interactions between the child's genetic characteristics and negotiation with the environment (Sameroff & Fiese, 1990). Involved in the process is also an essential element of stress, and while the majority of children negotiate this progress successfully, there is a worrying number of children who do not (Barr, Boyce & Zeltzer, 1996; Rutter, 1996). The adaptive or maladaptive character of a child's functioning has been related to the successful achievement of cognitive and social goals (Bricker & Cripe, 1992; Greenspan, 1992; Werner & Smith, 1991; Williamson, Szczepanski & Zeitlin, 1993) as well as a sense of well-being and positive regard (Dunst & Gallagher, 1983; Garmezy, 1996; Lipsky, 1985). The previous sections of this chapter explored the ways in which developmental maturation has been historically conceptualised, while this section presents the consequences of that maturation for children's adaptive or maladaptive behaviour.

### *Adaptive and Maladaptive Processes*

To be understood to be adaptive functioning, children's behaviour must meet the needs of themselves as growing individuals as well as the demands of the environment. This implies a flexibility of approach, procurement of personal resources and management of internal state and external situation, and may take the form of cognitive or behavioural strategies. These strategies may range from being consistently effective to ineffectual, given a range of contexts, and grouped collectively, would constitute an adaptive style (Zeitlin & Williamson, 1994).

There are a number of reasons why maturation may produce maladaptive responses, all of which are related to the interaction between the child's coping strategies and a presenting stressor (Barr, Boyce & Zeltzer, 1996; Clark, Pynoos & Goebel, 1996). A stressor may be interpreted as any event that is perceived as being harmful, threatening or challenging to the child's feelings of well being. It may be experienced cognitively, emotionally or physically and may be regarded as a normal function of maturation, e.g. menarche, for less vulnerable children (Rutter, 1996). The effectiveness of behaviour, how adaptive or maladaptive, may be judged by its developmental appropriateness, its suitability to the situation and the outcome it generates (Zeitlin & Williamson, 1994).

### *Causal and Preventative Factors*

Complete awareness of the causal and preventative factors involved in maladaptive functioning is an unrealisable goal. In fact, research into this area has changed in focus through the decades, reflecting the current societal context (Garmezy, 1996). Initially, coping mechanisms were largely understood in relation to adults, particularly in relation to atypical circumstances. For example, psychoanalytic theory once classified people as conformists, repressors or sublimators (Loevinger, 1976; Vaillant, 1977). Behaviourist theorists employed the concepts of secondary and acquired drives to explain coping behaviour (Dollard & Miller, 1950), giving way to a view that emphasised cognition and motives (Bolles, 1974; Dember, 1974), viewing emotions as deriving from the cognitive way a person perceives what is happening.



There have been a limited number of studies focusing on children, the earliest of which was a WT Grant Foundation study in 1937 commissioned to investigate the way individuals differ in the way they make adaptations, seeking to identify the characteristics of lifestyle and personality associated with successful outcomes. Later work confirmed and expanded this work, identifying many mediating variables, or factors, that relate to adaptational differences. These include social support, cognitive processes and specific beliefs (Booth, Rubin & Rose-Krasnor, 1998; Pless & Stein, 1996); anxiety, positive affect, self-concept, physical health, income and locus of control (Compas & Hammen, 1996; Rutter 1983) and specific coping-related behaviours and personality characteristics (Murphy & Moriarty, 1976; Zeitlin, 1985). The work of Holmes and Rahe (1967) was able to identify and rank life events traditionally viewed as stressful, such as a death in the family, in a way that remains meaningful today.

One of the above studies, Murphy & Moriarty (1976), was the first longitudinal study of coping mechanisms in children, following 60 middle class children over 18 years. A second, longitudinal investigation, (Werner, 1989; Werner & Smith, 1982, 1991), followed the children born in 1955 on the Hawaiian island of Kauai, an island with a poor population and many risk factors in their lives. This study was oriented towards gathering concrete details, which identified factors such as age, sex, birth order and family make-up. Two trends were noted; 1) the impact of reproductive stress diminished with time, and 2) the developmental outcome of practically every biological risk factor was dependent on the quality of the care-giving environment. These findings have also been supported in more recent studies (Fournet, Wilson & Wallander, 1998; Nettles & Pleck, 1996; Pless & Stein, 1996;).

Children living in chronic psychosocial adversity, such as children of parents with schizophrenia or recent bereavement, have also been investigated (Clark, Pynoos & Goebel, 1996; Garnezy & Rutter, 1983; Greenspan, 1982), specifically with a view to why some children show more resiliency than others who have developed problems such as school failure, delinquency and drug abuse. The results of these studies suggest three major protective factors: 1) a positive disposition, such as an engaging personality; 2) a responsive family environment; and 3) external social support for child and family. Of particular importance was the presence of a primary caregiver with the capacity to protect the child from stress and offer nurturing continuity.

Zeitlin & Williamson (1990) conducted a large, field-based study of the coping characteristics of children with and without disabilities. They concluded that the presence of disability in children was linked to a greater vulnerability to stresses and therefore impaired adaptation. A comparison of the most and least adaptive behaviours of the two groups showed that the least adaptive behaviours of the non-disabled group was in the range of functional competence, e.g. finding a way to handle a new or difficult situation, while the least adaptive for the disabled group focused around areas of self-initiation, such as trying a new behaviour on one's own. More recently, Hoge and colleagues (1996) identified positive peer relations, good school achievement, and positive response to authority and effective use of leisure time as associated with more positive outcomes in a population of adolescent offenders.

This body of research points to a number of variables with causal or preventative influence on a child's capacity to adapt to stressful circumstances (Zeitlin & Williamson, 1994). The first of these is the child's *physical state*, both which may contribute both to the child's adaptational style, perhaps by causing a deleterious impact on the child physically, or by affecting the child's evaluation of the situation. The child's *knowledge and skill base*, relative to their age, will also influence the confidence with which the child approaches situations, as will their *material, human and environmental supports*. The child's *coping style and temperament* also need to be accounted for as each individual has a personal repertoire of coping characteristics. Lastly, the child's *beliefs and values*, which give meaning and context to an event, may aid the decision-making process, or impede it. Beliefs also shape expectations, offering or detracting from a sense of control. Shaping beliefs forms a large part of cognitive-behavioural therapy and can provide a powerful tool to the child in the face of significant stressors. Whatever the causes, maladaptive behaviour impacts on children's functioning, the consequences of which affect the health of an alarming number of children and families.

### *Summary*

Resilience in the face of stress is no longer seen as something that happens when an individual encounters some acute negative life event, but as the consequence of a history of events and processes, that is the outcome of what has gone before (Rutter, 1996). There is also an understanding that few acute life events are truly acute in their effects.

The main risks derive from negative events as part of chronic or reoccurring adversities, particularly in the context of an impaired environment. In this context, understanding the processes informing children's adaptive or maladaptive responses to life events becomes particularly salient.

The previous sections have reviewed the historical contexts of development in childhood and the ways in which children's functioning may be considered adaptive or maladaptive. The following sections discuss in greater detail the characteristics of middle childhood and the ways in which children's functioning manifests during this age range.

### **1.3 CHARACTERISTICS OF MIDDLE CHILDHOOD**

One of the consequences of the lack of research devoted to middle childhood is the limited information describing the characteristics of this age group. While Gesell's detailed observations of infants remains the normative comparison for professionals, there is no equivalent knowledge base for middle childhood. An important exception to this is the work of Borland, Laybourn, Hill and Brown (1998) whose work focused not only exclusively on middle childhood, but took the important step of discussing directly with children and parents those aspects of the child's development each felt was important.

Their investigation drew upon mainstream primary schools based in contrasting areas of Scotland: three in a peripheral housing scheme with high levels of unemployment; two in a prosperous suburban area; and two schools in a rural area. A total of 103 children were interviewed in focus groups, using 'child-friendly' materials to aid discussion, e.g. pictorial vignettes to stimulate ideas on situations.

Much of the available information confirms the historical developmental perspective discussed earlier, enriched with contemporary examples of functioning and detailed characteristics as portrayed by the children and parents first-hand. For example, parents concurred with cognitive psychologists (Meadows, 1990) that from around eight years, children were more able to discuss with parents, and understand, the reasons for people's actions and have an appreciation of what was right and wrong; thus reflecting the children's growing capacity to expand, reflect, decentre and generalise (Bee, 1995). Girls

were described as more talkative during this age range than boys, relating daily events, checking their opinions and rehearsing social problems.

### *Age Differences*

The younger children, ranging from five to seven, were mostly concerned with their own immediate and concrete needs when discussing their own happiness or sadness. Happiness meant getting what they wanted, and sadness, being denied. By age seven, children exhibited signs of shifting to a widening social network. Happiness for this age group now concerned family holidays and friends to play with, while negative emotions were more concerned with complex relationships. This was also a peak period for fears concerning death, ghosts and nightmares.

By nine years of age, having and relating to friends was confirmed as a vital component of happiness or misery. Adults began to take on a relatively less important role in these children's lives, losing their air of omnipotence, and unfair treatment by adults became a major source of anger.

By eleven the children were carrying on the same, although more sophisticated, concerns as their younger counterparts. Although family was still important, friends were now the major confidants, and group identity and achievements were increasingly important. Criticism of adults became much more salient, and while some may still be regarded as competent, others were seen harshly as ineffectual. These older children were able to choose who they turned to for help, and this seemed to be situation specific. This awareness extended to adults as individuals in their own right, with problems and concerns of their own. For some children, their sense of injustice extended to the wider world, and many expressed anger and distress by wars, famine and the mistreatment of animals.

### *Gender Differences*

When discussing gender, children often made definite statements about the differences between boys and girls. For example, boys were seen as rougher, less able to show emotion and more boastful. Girls were seen as more sensitive to loss, more inclined to

apologise, to fall out more, confide more and blame themselves, and admit they were wrong more frequently than boys. Independent observation found evidence of these stereotypes in all male groups, but not during mixed situations or one-on-one interviews. Equally, boys seem to inhibit girls in a way not seen in all female group situations.

### *Understanding of Emotions*

One-on-one interviewing found that actually boys and girls were equally enthusiastic and capable of discussing emotions and reflect on circumstances which might provoke them. When asked to name emotions associated with cardboard faces, e.g. cross, angry, grumpy, moody, frustrated, upset, sad, annoyed and unhappy, both sexes produced detailed and sophisticated responses, although obviously this increased with age. The variety of responses given to the same face illustrated some differences in interpretation of the more ambiguous expressions, in particular there was some evidence to suggest that externally directed feelings, e.g. anger, may be confused with internalised emotions, e.g. sadness and uncertainty. Despite this, most children were aware of hidden feelings, either through pretence or masking, e.g. '...they were just pretending to be happy because they didn't want their mother to know they were sad', as well as recognising that feelings may be directly expressed, e.g. '...if someone was miserable or cross with themselves they wouldn't act like they normally would...they would maybe be more cheeky', (Borland, Laybourn, Hill & Brown, 1998; p.33).

### *Children's Beliefs*

During this age period, children are able to articulate a wide range of beliefs and ideas about the world. When asked about their families, recent work by Newman, Roberts and Syre (1993) confirmed previous work by Piaget (1926), suggesting that it is the emotional, rather than biological relationships for children which are most prominent. While some drawings by children of their family were confined to their own household, many others included non-resident kin. Most children felt that couples, even if married, did not constitute a family unless they also had children, although divorce did not eliminate the sense of being a family (O'Brien, Alldred & Jones, 1996).

Most children saw their mothers, as opposed to fathers, as chiefly responsible for their health and well being and most agreed that they were content with their current level of independence. Only one child in eight said that they would like more say in things at home (Ghate & Daniels, 1997). This is not to suggest that children did not feel more capable than their parents gave them credit for. As one child said, 'They should trust you but they're expecting you'll mess it up. Like if it's something big or important like a video recorder. They think you'll drop it but I think I can do it' (cited in Lindon, 1996).

### *Fears and Worries*

There is conflicting evidence concerning this age group and fears or worries. Rutter and Rutter (1993) concluded from adult reports and observations, that by middle childhood most children are no longer bothered by typical fears and anxieties of pre-school years, e.g. separation, the dark, and imaginary creatures. However, there is evidence to suggest that many fears remain quiet common, e.g. snakes, strangers or parental divorce (Garnezy & Rutter, 1983). Ghate and Daniels (1997) found that contrary to popular belief, worries were more common in middle childhood than in adolescence, with twice as many of the under twelves classified as 'anxious' on a composite scale (22%) than those aged 12 to 15 (10%).

When asked open-ended questions, children most frequently reported concerns that were socially oriented, i.e. bullying and family discord (Silverman, La Greca & Wasserstein, 1995). However, when presented with a list of issues such as sex, drugs or abduction, children do admit to concerns in these areas.

### *Of Particular Importance to Children*

Two areas of children's lives during this time period deserve particular attention: the importance and influence of children's peer relations, and parental knowledge and appreciation for the child's world. Peer relationships in this age group were cited by all children as central to living a full life and regarding themselves positively. Close, personal friendships were particularly important, especially for girls' and all children spent a large part of their time and thought towards negotiating peer interactions (Erwin, 1992). 'Not playing with you' and 'having no friends' were to be avoided at all costs and

befriending a friendless child was seen as altruistic and welcome (Williams, Wetton & Moon, 1989). Observational research has examined some of the processes involved, although generally with little emphasis on the less visible feelings of sadness or exclusion. When friends do fall out they sometimes use standard mechanisms for seeking a reconciliation without either side losing face (Bigelow, Tesson & Lewko, 1996; Miller, 1993).

The second point, parental appreciation of the child's world, is related to this aspect of middle childhood in so much as most children felt their parents significantly underrated the importance and worry peer relationships caused them. Bullying affects about one child in six regularly (Olweus, 1991) and while verbal teasing is most common, hitting, kicking and extortion affect significant numbers (Smith & Cowie, 1991). Victims of bullying can become very depressed, lacking in confidence and are unable to learn well at school (Smith & Sharp, 1994).

It is only in recent years that adult attention has turned towards the importance of peer reactions and most recently more schools and communities will have developed an organised response to bullying. While most children saw adults as helpful and benign, there was a universal recognition that some of the children's lives were unfathomable and off limits to adults. This was partly an issue of confidentiality, not wanting to get themselves or others in trouble, but also a sense that parents did not fully appreciate the complexities involved. Despite these feelings, many children expressed worry at their exclusion from adult life, describing occasions when they were concerned because their parents had been upset and they had not been told the reason. Anxiety was greater when parents did not explain the trouble, although most agreed they were not enthusiastic to know the full extent of adult worries.

### *Summary*

This section presented recent work investigating the specific characteristics exhibited by children in middle childhood, as reported by the children and their parents. The little information that is available confirms many of the theoretical descriptions offered by developmental psychologists. For example, increased significance of emotional relationships and a move to greater understanding of a wider world in older children, as

well as greater capacities for reflection and comment on personal experience. In addition, the findings of the large study by Borland, Laybourn, Hill and Brown (1998) confirmed the general idea of middle childhood as a relatively stable period, despite the common experiences by children of potentially traumatic experiences such as divorce. By understanding the range of development experienced by children during this time period, a more sophisticated approach to a comprehensive theoretical framework may be reached, focused more specifically on middle childhood.

#### **1.4 CONCLUSION**

Despite the extensive research and theorising concerning early childhood and adolescence, middle childhood, i.e. five to twelve years of age, remains relatively unexamined. This remains true despite the increasing awareness among healthcare professionals concerning the importance of this time period. Partly, this is a recognition of the cognitive and social developments during this age range, but also an acknowledgement of the frequency with which meaningful life events affect this age group. For example, although stabilising, the current divorce rate is presently at 50% and the majority of children born after 1980 will spend some time in a single-parent family before reaching 18 years of age (Hoffman, 1993). Remarriages presently account for 30-40% of all marriages each year, and in America approximately 40% of white children and 60% of African-American children in blended families will experience the break-up of that marriage as well, usually during middle childhood (Children's Defence Fund, 1990). These changes to the role and context of parenting put added pressure on parents who are often dependent, to a large extent, on their own resources, both in terms of day-to-day caring, and deciding how to parent (Hill & Tisdall, 1997).

In the midst of these changes is a growing cultural awareness of the importance of a 'child centred' approach to investigating children. Recent emphasis has also been placed on the emotional and social 'needs' of children and the rights of children as individuals, e.g. the United Nations Convention on the Rights of the Child. The increasing attention devoted to this age group will continue the trend toward appropriate interventions, whether they be educational, cultural or therapeutic.



This chapter began by examining the historical and contemporary approaches theorists have taken to understanding middle childhood. It then went on to discuss how children's development may manifest as adaptive and maladaptive behaviour and finally, explored the specific characteristics, beliefs and behaviours demonstrated by children during this age period. The goal of the next chapter is to look at how, given these circumstances, assessment in middle childhood is optimally approached.

## THE ASSESSMENT OF FUNCTIONING IN CHILDHOOD

### CHAPTER SUMMARY

The aim of this chapter is to discuss the relevant issues surrounding recent developments in the conceptualisation and assessment of functioning in children. Rising from investigations of assessment areas targeted in outcome research, four domains of functioning emerge: symptomatology, adaptation, mechanistic and transactional. In addition to theoretical models, strengths and weaknesses of the instruments used in the assessment of each domain are also discussed.

### 2.1 PREVALENCE OF PSYCHOPATHOLOGY IN CHILDHOOD

The assessment of impairment in functioning in children is an essential and consequential area of developmental psychology. Epidemiological data suggest a prevalence rate of diagnosable disorders in children of around 20% (Cox, 1994; Kazdin, 1996). Studies of children and adolescents, ranging in age from 4 to 20, indicate that of this 20%, approximately 12% suffer from anxiety disorders and 10% from disruptive disorders, while Attention Deficit Hyperactivity Disorder accounts for 5% of diagnosable children (Target & Fonagy, 1997). A range of other disorders (e.g. depression, enuresis, substance abuse and specific developmental disorder) comprise approximately 6% of this group, whilst disorders such as autism and psychosis are rare and affect less than 1%. Although the majority of childhood psychological problems are mild in clinical terms, the problems affecting around 7 to 10% of children fall within the moderate to severe range.

Despite the prevalence reflected in these figures, it is well established that the majority of children experiencing difficulties do not receive professional help (Garralda, 1994; Kazdin, 1994; 1996). Those that are referred, tend to be more severely impaired and are often from families experiencing multiple psycho-social problems such as a parental mental health, marital disharmony and unemployment (Hibbs & Jensen, 1996; Offord, Rutter & Quinton, 1984; Rutter, Tizard & Whitmore, 1987).

## **2.2 INCREASE OF ACCOUNTABILITY IN HEALTHCARE**

The cost in terms of economic variables, as well as the long-term psychological impact of impairment on individuals, persuasively highlights the need for the development and evaluation of effective therapies for children (Hibbs & Jensen, 1996; Robins & Rutter, 1990; Rutter, 1988; 1993). At the same time, recent and pervasive financial restrictions have brought about an increased need for spending accountability, particularly in the mental healthcare professions. Subsequently, funders increasingly require proof of service efficacy in conjunction with application or receipt of funding.

This push towards evidence-based practice has encouraged clinicians to quantify the mechanisms and processes through which various treatments operate, and the impact of treatment on maladaptive and adaptive functioning (Kazdin, 1994). This shift in focus is reflected in the number of Department of Health reports articulating the need for more outcome evaluation (e.g. Working for Patients, 1989; the Normand Report, 1991; 'Managing the new NHS', 1993) as well as the establishment of a national outcomes clearing house (Bate, 1994) with the explicit aim of improving the effectiveness at health-care.

These changes have essentially proved successful. Clinical audit is now a well-established component of most health service contracts (Pilling, 1991), while there is a new emphasis on service quality (Parry, 1992) and evidence-based practice (Geedes, Reynolds et al., 1998). However, despite considerable advances regarding intention, there remains the problem of practice, specifically, systematising the methodological attributes and approaches of outcome research (Kazdin, 1995; Ollendick, 1986; Parry, 1992; Werry & McClellan & Wollersheim, 1989).

## **2.3 METHODOLOGICAL CONSIDERATIONS IN OUTCOME RESEARCH**

The majority of outcome studies conducted to date have focused exclusively on adults, despite the general acceptance that the application of similar techniques across the lifespan is ineffectual (Kazdin, 1994). The result is that clinical management of distressed children is still largely influenced more by personal preference and experience than by scientific evidence (Graham, 1993), despite the fact that there are over 230 forms of treatment available (Kazdin, 1988), few have been subjected to any evaluation.

Meta-analyses that have been conducted on childhood treatments, e.g. Levitt's (1957) examination of 18 child psychotherapy outcome studies, have been beset with methodological weaknesses. It is possible that the reasons for this are peculiar to psychological work with children. For example, the treatment of choice in some circumstances is much clearer than in others. There may, for instance, be agreement on the management of severe disorders, but less for mildly disturbed children with the same condition (Target & Fonagy, 1994a; 1994b). Child psychiatric disorders also differ in their natural history. In general, autism and other pervasive developmental disorders have a very poor prognosis (Dahl, Cohen & Provence, 1986), conduct disorders and attention deficit hyperactivity disorders have an intermediate outcome, while children suffering from depressive and anxiety disorders do relatively well (Lewinsohn et al., 1996), although these conditions often recur (Robin et al., 1996). The efficacy of treatment, especially long-term treatment, is more difficult to evaluate in conditions with a high spontaneous remission rate and, naturally, there is a danger that therapists dealing mainly with such disorders will attribute improvements to their treatment, when the disorders might well have improved in any case (Kazdin, 1996). Additionally, child psychiatric disorders often change predictably over time, some symptoms recede and others emerge. For instance, children with attention deficit hyperactivity disorder (ADHD) usually show gross hyperactivity at three years; by five or six years this is commonly much less troublesome, the emphasis having shifted to attention deficit (Webster-Stratton, 1997). Assessment of treatment outcome needs to take into account these likely changes in the symptom picture with age. A child whose over-activity has improved is not necessarily less impaired.

The presence of co-morbidity can also influence the expected course of a disorder. For example, a child showing ADHD will have a considerably worse prognosis if he also shows symptoms of a conduct disorder (Taylor et al., 1991). However, in some studies, children with additional diagnoses are excluded. This clarifies the focus of the study, but unfortunately makes it much less clinically useful, as many disturbed children present with symptoms of more than one disorder (Kazdin, 1990). In other studies, the principal diagnosis of the child is used in selection for treatment, and the results are interpreted without regard to other coexisting disorders, which may obscure interpretation of treatment efficacy.

Lastly, what can be learned from any outcome study depends on its design. For many, the most informative methodology is the blind, randomised controlled trial (RCT) (Hulley & Cummings, 1988; Doll, 1994). Proponents of RCT believe that any alternative experimental designs available, such as non-blind between-group comparisons, time-series analysis and crossover experiments, have drawbacks in comparison. Despite the support, there are many reasons for the rarity of RCT investigations, arising from ethical objections to random allocation, and from the choice of an appropriate control condition (especially for long-term or intensive treatment).

There are also an increasing number of researchers questioning the RCT as the 'gold standard' (Fonagy, 1997; Fonagy & Higgitt, 1989; Garfield, 1996). Chief among the criticisms is the low external validity of RCTs. This is primarily due to their lack of representation of healthcare professionals and participants; the possible use of atypical treatment; and the limited measurements of outcome used. Piper and colleagues (1991) argues for grouping patients by psychological functioning, as opposed to the Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria, in order to increase the clarity with regard to outcome, as diagnoses are not strongly related to outcome.

There are possible solutions to these difficulties. Barnett et al., (1991), in a review of 43 controlled outcome studies of individual child psychotherapy conducted over 27 years, listed desirable features of clinical trials, based on recommendations of previous reviewers (Levitt, 1963; Heinicke & Strassman, 1975; Wright et al., 1976; Barrett et al., 1978; Casey & Berman, 1985). These features were as follows:

#### *Inclusion and Exclusion Criteria*

Specific diagnostic criteria or standardised objective measures are required to identify the signs, symptoms or problem areas of the sample subjects. Exclusion criteria eliminate inappropriate candidates, or eliminate subjects which might bias the results. A homogeneous sample will allow conclusions regarding that specific group. Alternatively, there should be a clear description of variation within the sample, particularly of patterns of co-morbidity. It is necessary to have a sample size adequate to demonstrate significant differences between groups.

### *Specification of Therapy*

Duration, characteristics and frequency of treatment sessions should be stated. A detailed description should be given of treatment techniques in each condition. Outlining of the characteristics, background, and training of therapists is desirable. There should be control (or monitoring) of other forms of simultaneous treatment that might influence the results. Similarly, the degree of parent involvement should be standardised if possible. There must be some measurement of treatment integrity, that is the extent to which therapy was delivered as specified in the description of technique.

### *Matching Procedures and Control Groups*

Control groups should be used, and clearly specified (i.e. 'placebo', other treatment, or no treatment). Assignments to experimental and contrasting groups should be made randomly. There should as far as possible be a matching of groups for age, sex, IQ and other relevant variables to reduce the effect of these pre-treatment variables on the study's findings.

### *Measurements and Outcome Evaluations*

Standardised and objective ratings of dependent or outcome measures are desirable, rather than reliance on clinical judgement. Where clinical judgements are made, there must be measurement of inter-rater reliability to ensure replicability and comparability with other studies. Outcome ratings should be blind to the treatment, group assignment, and pre-treatment assessments. Outcome measures need to be relevant, but not exclusive, to the subject of study.

## **2.4 CONSIDERATIONS OF ASSESSMENT MEASURES IN OUTCOME RESEARCH**

Despite the methodological difficulties, outcome research into childhood therapies is a necessary pursuit. The possibility of health purchasers funding therapies with little effectiveness is just as unacceptable as the possibility of needy children receiving an intervention offering less relief than an alternative, due simply to a lack of accumulated evidence. One source of difficulty affecting the progress of outcome research is the inadequacy of existing measures.

The paucity of developmentally sensitive measures, capable of measuring change in a number of important domains of children's functioning, remains a fundamental obstacle to the accurate understanding and scrutiny of outcome. While there are many robust and widely used measures, none are able to encompass the wide construct known as functioning.

Functioning is not an absolute or fixed state but is continuous between two polarities of health and sickness. Most children will fall somewhere in the middle of two contrasting extremes at any point in their development. Additionally, functioning is setting specific and more importantly, domain specific. Measures that focus only in the school environment may find a different representation of the child than those that measure the home environment (Kazdin, 1994; Cantwell & Rutter, 1994). This uneven picture is more likely to be missed if only one area of the child's development is considered or only one person involved with the child is interviewed. There is also evidence suggesting that in many cases children may not be the best source of information concerning their difficulties (Elander & Rutter, 1996; Kazdin, 1994).

Contemporary assessment measures must be able to accommodate these tensions while maintaining appropriate psychometric properties. These properties are recognised to be met to the extent to which the assessment instrument is reliable between raters, time and informants; is internally consistent; is able to discriminate between health and impairment; is valid with respect to aetiology, prognosis and treatment; and finally, its usefulness for research and clinical practice (Werry & McClellan, 1992). In addition to these psychometric characteristics, assessment measures must meet environmental criteria for time and cost efficiency.

A primary task of this process is to conceptualise assessment in a way that enables decisions on purpose and utility to be considered. Researchers and clinicians have attempted this process by viewing functioning from different levels, all interconnected but representing distinct processes in domains. Changes in behaviour can be conceptualised in a variety of ways (Fonagy, 1997; Hoagwood et al., 1996; Jensen et al., 1996) and a great deal of thought has gone into maximising the ‘almost limitless’ (Donabedian, 1982) set of variables that may be considered. It is currently accepted that good outcome research needs to be multifaceted in its approach, and the need for assessing multiple domains of functioning from multiple perspectives is generally accepted (Kazdin, 1994; Cantwell & Rutter, 1994). However, there is less agreement about how a change for the better might be defined (Kazdin, 1994; Lambert & Hill, 1994). Kazdin (1994) has highlighted the importance of clearly identifying the goals of therapy prior to conducting outcome research, followed by an evaluation of the primacy of outcome measures in relation to these goals.

Fonagy (1997) has addressed these issues by identifying four levels at which outcome can be conceptualised and measured: symptomatic or diagnostic; adaptation; mechanistic and transactional. While other theories have used different conceptual structures, these levels offer a useful configuration to discuss a variety of theories and proposals in the assessment of children’s functioning.

#### 2.4.1 ASSESSING SYMPTOMATOLOGY

The first and most behaviourally oriented level is of symptomatology and the clustering of symptoms into diagnoses. In any one community 20% of children will meet criteria for some psychiatric diagnosis (Kazdin, 1996), and half of those are likely to meet a diagnostic criteria for another disorder as well (Anderson et al., 1987; Bird et al., 1988). In a referred sample, co-morbidity is even higher, at 70 to 75% (Cox, 1994; Kazdin, 1996). Without assessment of symptoms, important characteristics are missed. The prevalence of co-morbidity requires special attention during assessment, taking into consideration similar underlying developmental issues such as disturbances in attachment relationships or environmental and constitutional risk factors (Fonagy et al., 1999; Kazdin, 1995).



Historically, it is likely that the assessment of symptoms was the first modality used to discriminate between impaired and normal functioning in human behaviour. Perhaps for this reason it is currently the most sophisticated and prevalent methodology available (Fonagy, 1997), greatly eased by advancement in computer technology. This prevalence does not mean there is an existing uniform methodology for classification, discrimination or analysis, although symptoms can be generally defined as any behavioural, cognitive or emotional event exhibited in one or more setting which leads to an impairment in functioning (Hoagwood et al., 1996). There is also a proliferation of standardised diagnostic measures associated with psychiatric disorders as defined by the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (DSM-IV; American Psychiatric Association, 1994) which are easy to use, offer a shared language and enable cross fertilisation of information.

Many factors decide the severity associated with symptoms. These include the number and type of event, frequency, duration and distress to the individual. Despite discrepancies, the majority of ways in which these characteristics are recognised and classified usually fall into two types of assessment methodology: categorical and dimensional.

### Global Approaches to Measurement

The simplest form of categorical measurement is the global approach to assessment. Shown to be reliable and valid, global scores are also highly sensitive to changes over time (Endicott et al., 1976; Bird & Canino et al., 1987; McGlashan, 1973). Global scores attempt to measure across domains and synthesise all aspects of functioning into a single score. Global scores have also been used extensively in clinical practice as screening instruments when clinical cut-off points have been established.

One of the first attempts at assessment was the Health-Sickness Rating Scale (HSRS) developed for adults by Luborsky (1962) as part of the work of the Menninger Foundation's Psychotherapy Research Project. The HSRS was a 100 point scale on which an individual's adaptation could be rated from "an ideal state of complete functioning integration, resilience in the face of stress, and social effectiveness" to "any condition in which, if unattended, would quickly result in the patient's death, but not

necessarily by his own hand". The rating clinician kept in mind the following domains to arrive at an overall score: (1) the patient's need to be protected and/or supported vs. the ability to function autonomously; (2) the seriousness of the symptoms; (3) the degree of subjective discomfort and distress; (4) the patient's effect on his environment (e.g. danger, discomfort); (5) the degree to which the patient could utilise his abilities, especially in work; (6) the quality of his interpersonal relationships; (7) the breadth and depth of his interests. The HSRS proved to be reliable between raters (Distler et al., 1964; Rogers et al., 1967; Watterson, 1962) and test-retest (Stone & Dellis, 1960; Robbins, 1962) and to be correlated with other areas of functioning, for example, symptomatology (Kernberg et al., 1972; May & Tuma, 1964), treatment motivation (Luborsky, 1962), diagnostic category (Rogers et al., 1967) and quality of interpersonal relationships (Mayman, 1967).

Despite the established nature and usefulness, the HSRS had some difficulties with rating, and a new scale known as the Global Assessment Scale (GAS) was developed by Endicott and colleagues in 1976. Specifically, Endicott and colleagues reported difficulties with assigning HSRS ratings arising from the mixture of behavioural, historical, diagnostic and interpretative information in both the anchor point definitions and the case descriptions. In addition, there were some situations where the level of functioning was inconsistent, and guidelines were required to improve reliability.

The Global Assessment Scale (GAS) is similar in structure to the HSRS, but the anchor points are defined by behavioural descriptions, there are no case illustrations (these were felt to be of limited usefulness), and ratings are based on the lowest level of functioning over the previous week, with no allowance being made for the effects of any treatment. The GAS has been shown to have good reliability and validity in a variety of contexts (see for example, Dill et al., 1989; Bird et al., 1987; Holcomb & Otto, 1988). Endicott et al. (1976) have also shown that the GAS is sensitive to clinical changes over time.

In 1983, the GAS was expanded into the Children's Global Assessment CGAS (Shaffer et al., 1983). The CGAS has a 100 point range, which identifies psychiatric functioning along a continuum from the most severely ill to the hypothetical entirely healthy individual. Scores above 70 on the CGAS are designated as indicating normal function. The instrument contains behaviourally oriented descriptors at each anchor point, which depict behaviours and life situations applicable to children between four and sixteen years of age.

Since psychiatric illness is defined broadly in terms of functioning and symptoms, the CGAS is appropriate for use with a spectrum of patients.

Shaffer and his colleagues (1983) reported only a small study of the reliability and validity of the CGAS scale, but it has since been used in a number of investigations (e.g. Bird et al., 1987, 1990; Steinhausen, 1987) which have demonstrated that the psychometric properties of the scale are satisfactory. Shaffer et al. (1983) demonstrated that the CGAS is sensitive to differences in level of impairment between in-patients, and demonstrated inter-rater reliability and test-retest stability over a six-month period. Shaffer et al. (1983) also examined concurrent validity by comparing simultaneous ratings by parents on both the Conners Abbreviated Parent Checklist and the CGAS; they found a correlation coefficient between the two of -0.25. The moderate correlation between the CGAS and Conners index demonstrates that these two approaches to measuring severity of disorder cannot be regarded as providing entirely similar or redundant information. Shaffer et al. suggest that the co-ordinated use of global and syndrome-specific scales could be of heuristic value in differentiating meaningful diagnostic subgroups.

Bird et al. (1987) used the CGAS in a series of epidemiological studies in which its psychometric properties were established as satisfactory. They showed, for example, that CGAS scores clearly discriminated patients from non-patients, and furthermore that adding CGAS ratings to psychiatric diagnoses and Child Behavior Checklist profiles (CBCL: Achenbach & Edelbrock, 1983) provided substantially improved discrimination between referred groups (Bird et al., 1990). Steinhausen (1987) reported that a German translation of the CGAS differentiated between cases with different degrees of diagnostic severity.

The GAS and CGAS have been combined into a single scale, the Global Assessment of Functioning (GAF), which forms Axis V of the DSM-IV and commonly in use (Alaja et al., 1999; Svanborg et al., 1999). However, Weissman et al. (1990) suggest that the CGAS provides a more sensitive assessment of functioning than does a general instruction to include impairment among the diagnostic criteria. They also comment that the GAF changes the nature of the global assessment by explicitly including symptoms in the anchor points on the scale, and this could confound the relationship between symptom and function, making the GAF less useful as a measure for research. This would seem to argue

for the use of a global assessment scale which emphasises pro-social functioning, rather than supplementing diagnoses with GAF ratings, when assessing childhood functioning and symptomatology.

Global scales have been found useful in combination with psychiatric diagnoses in several studies. Adding impairment criteria (cut-off points on global scales, contributing to the definition of a "case") has, for instance, been shown to improve identification of children requiring treatment in a large-scale epidemiological study in Puerto Rico (Bird et al., 1990). Weissman et al. (1990) found that the application of impairment criteria (CGAS below 51) improved agreement between mother and child for major depression, attention deficit, conduct disorder, and substance abuse. Children tended to report symptoms at milder levels of impairment, while parents only reported a disorder if it resulted in social disruption. It should be noted however, that impairment criteria had little impact on the agreement for anxiety disorder and the reasons for this are unclear.

While the use of a single score may appear to meet a need for simplicity, it does risk missing clinically relevant information as well as missing uneven functioning within children despite being more sensitive to changes over time (McGlashan, 1973; Endicott et al., 1976). Lastly, the encapsulating of a great deal of information into a single score does require a good deal of clinical expertise and experience, and such difficulties have resulted in concerns over reliability and validity (Endicott et al., 1976). These combined concerns have encouraged some clinicians and researchers to focus their assessments using measures with a categorical approach, discussed in the next section.

#### Categorical Approaches to Assessment of Symptomatology

Categorical approaches to assessment hope to identify patterns in presenting symptomatology and group these patterns into meaningful, discrete categories. They are more widely used in research and clinical practice than other approaches (Cantwell & Rutter, 1994). They were the first efforts to bring psychiatric illness away from the spectral towards the scientific, and one of the first attempts was made by Emil Kraepelin in 1892. Many of his descriptions remain part of contemporary vocabulary, for example schizophrenia and manic-depressive (bipolar) disorder (Kraepelin, 1883). In the United States categorical descriptions were first recorded when a census was taken in 1840

(Cantwell, 1996). Further census taking culminated in the National Commission on Mental Hygiene in 1917, while the Second World War gave rise to the Veteran's Administration health care system as an attempt to manage military psychiatric disturbances. One of the first systems that focused exclusively on the classification of pathology in children was the Developmental Profile created by a large committee of analytically oriented psychotherapists and described by Anna Freud in 1965 (A. Freud, 1965).

There are advantages in using a categorical approach. Firstly, the use of a single term is an easy and simple way of summarising a great deal of clinical information (Cantwell, 1988). Measures that are more dimensional in nature are often used to split a population into groups, using cut-off points, which effectively split the data into categories. Secondly, the process of categorisation is a comfortable and common way of working within a clinical and general environmental context (Cantwell & Rutter, 1994). Categorical descriptions have also facilitated the comparison of findings between studies (Achenbach, 1995c; Klein & Riso, 1993).

#### *The Two Primary Categorical Assessment Measures of Symptomatology*

Contemporary assessment of diagnosis is primarily focused on two instruments, developed in parallel. The first is the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM: American Psychiatric Association, 1994), first published in 1952 and most recently revised in 1994. The second is the World Health Organisation's International Classification of Diseases (ICD: World Health Organisation, 1992), the most recent version, ICD-10, was published in 1992. Although both systems were generated independently, there is a great deal of overlap between the two. Both systems are conceptualised within a medical model using descriptive characteristics of behaviour rather than hypothesised underlying causal constructs (Cantwell, 1988). Both manuals use the clinical judgement of professionals to list signs and symptoms and both require specific patterns and characteristics to meet criteria for diagnosis, also decided by clinical judgement.

Despite these similarities, the DSM and ICD do differ in certain respects, the most important of these is their treatment of co-morbidity. When a child shows symptoms of

more than one disorder, the DSM encourages multiple diagnoses while the ICD favours using either the most prominent or long standing disorder. Despite the fact that specific codes can be used for mixed disorders in the ICD, e.g. mixed disturbance of emotions and conduct, the majority of common combinations are not represented (Target & Fonagy, 1994a). ICD and DSM authors have acknowledged the strengths of both systems and come to some compromise. The ICD literature concedes that for research purposes it is desirable to code each condition separately, enabling specific comorbidity patterns to be investigated. For their part, the DSM Work Group has revised the manual to highlight frequently co-occurring diagnoses and to include the identification of a “principal diagnosis”, with other conditions coded as “additional diagnoses”.

Other difficulties have also been discussed, one issue being the degree to which diagnostic categories are discrete and separate from one another. For example, while many children may present problems for treatment that overlap into more than one defined category, many types of children’s difficulties commonly presented do not meet any diagnostic category at all, despite representing distressing and difficult behaviour (Target & Fonagy, 1994a; 1994b). This creates the potential for over or under-representation and misdiagnosis (Richters & Cicchetti, 1993; Wakefield, 1992a, 1992b) and Cantwell and Rutter (1994) have suggested that the high degree of comorbidity among children may be artificially inflated as a result of inadequate conceptualisation of psychiatric disorders. This may be specific to DSM and ICD classifications, Boyle and his colleagues (1996) point out that neither the DSM or ICD include operational definitions, nor have explicit diagnostic thresholds. This difficulty may generally relate to diagnostic categorisation as an approach and Kazdin (1994) has suggested that diagnostic categories are themselves merely ‘tentative hypotheses’ about how to organise clusters of symptoms.

Additionally, diagnostic categories for children have been downwardly adapted from adult categories and some researchers have argued that the descriptive, static and uni-dimensional approach of these systems fail to take into account the effects of experience, developmental history and contextual factors more easily discerned by experienced clinicians (Jensen & Hoagwood, 1997; Rutter & Shaffer, 1980; Vaillant, 1984). Assessing adults, Costello (1982) found less than 50% agreement between DSM diagnosis and clinical judgement, and Goodwin and Guze (1979) found that using strict

categorical criteria resulted in 25% of the patients receiving diagnoses of “undiagnosed mental disorder”. It is likely that children, with a more limited range of available diagnoses, will show an even higher proportion of unspecified syndromes (Cantwell, 1988). This was confirmed by Ezpeleta and colleagues (1997) who found only low to moderate agreement between clinicians on all disorders except Conduct Disorder.

These tensions focus specifically on the perceived lack of emphasis on elements that contribute to clinical assessment and outcome, and are particularly damaging in light of current trends toward assessment of outcome and clinical efficacy. One example of this is the diagnostic focus on cataloguing deficiencies in achievement without recognition of the consequences of those deficiencies on areas of functioning, e.g. confidence. (Achenbach, 1995a; Kazdin, 1996)

Finally, the DSM and ICD manuals organise information, but have not addressed the issue of collecting the information in the first instance. The most common way of differentiating between categorical groups is with the aid of a structured or semi-structured diagnostic interview. These kinds of interviews ensure firstly that clinicians have common information available to them when considering diagnosis and secondly that information is collected comprehensively and uniformly. Most of the diagnostic interviews have versions for both parent and child with questions geared towards eliciting information on presence or absence of symptoms that are then compared to ICD or DSM categories; for example, the Diagnostic Interview Schedule for Children (DISC: National Institute of Mental Health, 1992) and the Diagnostic Interview for Children and Adolescents (DICA: Herjanic & Campbell, 1977). Other types of diagnostic interviews do not focus on general symptomatic potential, but are specifically searching for particular types of disorder; for example, the Schedule for Affective Disorders and Schizophrenia-Lifetime (SADS-L: Endicott & Spitzer, 1978) for adults and Epidemiologic Version for Children (K-SADS-E: Orvaschel et al., 1995), Anxiety Disorders Schedule for Children (ADIS: Silverman & Nelles, 1988) and the Multidimensional Anxiety Scale for Children (MASC: March et al., 1997). This attempt to partly operationalise definitions may be compromised by a variety of circumstances, for example informant error, lack of question specificity, recording errors and interviewer biases.

### *Alternatives to the DSM and ICD*

Some researchers have suggested that in light of the difficulties associated with this kind of assessment it would be more valid and accurate to make distinctions not on patterns of observed characteristics, but on the theoretical constructs underlying presenting behaviour. For example, Foster and Cone (1995) distinguish between measures of behaviour and measures designed to assess hypothetical constructs or latent traits. Behavioural measures assess individual responses, displayed observable actions that can be rated by an observer or by self-assessment. In contrast, assessment of hypothetical constructs must infer underlying patterns from consistent differences in behaviour.

The distinction between these types of measures is not always obvious. The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock & Erbaugh, 1961), for example, is a self-administered questionnaire asking the individual to select the intensity of occurring thoughts or behaviour, such as, "I am always (sometimes or never) tired". This may be seen as a measure of the construct depression, or as an index of cognitive, motor and physiological behaviours. Researchers are not always explicit about which category their measure falls under, and this may have repercussions when investigating validity.

Other authors have suggested the need for rethinking the assumptions involved in deciding which symptoms group with what, and what is the meaning of that cluster (Boyle et al., 1997; Cantwell, 1996; Weisz, Donenberg, et al., 1995). Focus in theoretical debate and published reports are mainly directed towards statistically generated outcomes rather than the assumptions and theories from which those numbers were created. This is the case despite sometimes significant differences between and within research and clinical settings and evidence, suggesting that outcome is often substantially altered by such differences (Weisz, Donenberg, et al., 1995; Boyle et al., 1997). Sroufe (1997) discusses the 'medical model' (Lazare, 1973) in diagnostic assessment, outlining ways in which he thinks this model has influenced research and clinical assessment. While environmental variables are acknowledged, Sroufe argues they are not fully recognised as contributing to the child's growing adaptation or as factors that might be assets involved in the overall treatment. Cantwell (1996) agrees that current approaches to assessment are flawed, but he does not relate this to the inadequacies of the medical model per se. He maintains that a more crucial question for classification of child pathology is whether



the pathology has a biological or psycho-social aetiology and what can, and cannot, be distinguished between clinical conditions and normality.

### Dimensional Approaches to Assessment of Symptomatology

Clearly, no completely superior alternative has emerged to replace traditional methodology and the debate continues. However, advances in statistical and computer technology have come the closest to creating a consensus on future directions (Achenbach, 1995b; Cantwell, 1996). These are known as empirical methods and relate particularly to defining and grouping psychopathology. The first type of assessments to use empirical methods are those investigating the physical causes for mental or behavioural disorders, such as the recent work done in attention deficits. This is a controversial area, the simplicity of which leaves some excited about the discovery of the true core of a disorder and others cautious to avoid boundaries in the characterisation process that might lead to incorrect diagnosis (Achenbach, 1995c). The second empirical method focuses particularly on statistical analysis, usually in regard to dimensional assessment instruments.

Psychologists have traditionally preferred dimensional methods (Cantwell, 1996; Quay, 1986). By not assigning individuals to discrete groups based on presence or absence of symptoms, dimensional measures assess functioning by scoring along a quantitative continuum, which spans the full spectrum from health to impairment. Proponents of this type of assessment maintain that categorical approaches obscure the continuity between normal and abnormal functioning, whereas dimensional measures offer the full range of presentation (Achenbach, 1995c). Co-morbidity can also be more easily represented by dimensional scales, facilitating the preservation of more information than categorical measures, while the availability of parallel forms for different informants allows cross fertilisation of data between institutions and encourages the use of a multi-informant model (Kendall, 1991).

The use of multivariate techniques, such as factor analyses, to identify groups of symptoms corresponding to clinical syndromes, also greatly enhances the use of dimensional measures by providing a symptom-dimensional profile (Achenbach, 1995c). The use of multivariate statistical techniques has been greatly improved by the use of

computers, increasing the standardisation and complexity of recording and analysing. Computers address many of the psychometric difficulties which are the result of processing that, while inevitable and appropriate during daily life, are inappropriate in a research setting, for example, attributing correlated relationships where none exist or the tendency for people to give greater weight to information that confirms their established beliefs (Achenbach, 1995c).

The first attempt at combining clinical judgement with statistical analysis was in 1946 when Hewitt and Jenkins and later Jenkins and Glickman (1946) were able to identify three broad types of child disorders: the over-inhibited child, the unsocialised aggressive child and the socialised aggressive child. Current procedures usually involve the collection of individual scores from different informants, observations or self-tests, which can then be aggregated to identify patterns that characterise groups of children. These patterns can then be used for diagnosis, prognosis, and treatment outcome (Achenbach, 1995c) and are usually completed by parents or teachers.

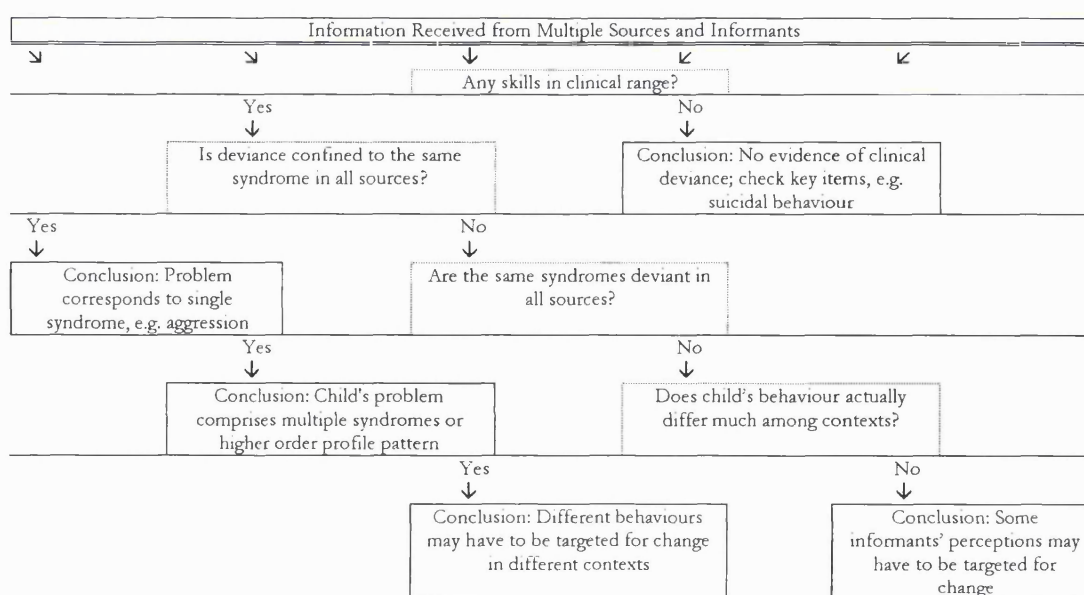
Dimensional systems offer some advantage over the categorical approaches. The recording of the presence, as well as absence, of symptoms means all children may be compared on the same dimensional domain. These instruments are also usually tied to specific measures with specified clinical cut-off points, standardising across populations and research, and avoiding the arbitrariness sometimes associated with categorical decision making and diagnostic interviews. Perhaps the most advantageous characteristic of dimensional assessment is the tendency for them to offer versions for a variety of contexts. There is a large portion of children whose disturbance occurs in a specific setting and relying on information from single setting informants adds to the likelihood of misinformed clinical judgement. For example, Rutter and colleagues (1997) found that psychiatric diagnoses without school information were likely to be skewed.

The most widely used example of this kind of assessment measure is the Child Behaviour Checklist (CBCL: Achenbach & Edelbrock, 1983) and associated measures (Teacher Report Form [TRF: Achenbach, 1991a]; [YSR: Youth Self-Report: Achenbach, 1991b]). Made up of 138 items divided into 20 items of social competence and the remaining into behavioural problems (which can in turn be grouped into a variety of externalising or internalising disorders), the CBCL plots a graph of the child's functioning across

domains showing the relationship between the child's functioning and a referred and non-referred population. High test retest reliability, concurrent and discriminate validity have been reported (Achenbach & Edelbrock 1983; Doepfner, Berner et al., 1995; Biederman, Faraone et al., 1993; Clark & Prange et al., 1994; Hanna, 1995; Kasius, Ferdinand et al., 1997)

Increased sophistication of measure development has led naturally to changes in research design. Advances in computer analysis and the multi-version characteristic of dimensional instruments have allowed researchers to become more sophisticated in their approach. This has mostly resulted in focusing on ways of capturing functioning from all perspectives, using as many settings and informants as possible and using the assessment to clarify and support clinical decision making and intervention (Hibbs & Jensen, 1996). Some researchers have linked methodology with investigative and therapeutic questions. For example, Achenbach (1995c) advocates an approach that takes advantage of the CBCL and associated measures to collect information from the child (Youth Self-Report Form (YSR): Achenbach, 1991a), parent (Child Behaviour Checklist (CBCL): Achenbach, 1991b), teacher (Teacher Report Form (TRF): Achenbach, 1991c), direct observation (Direct Observation Form (DOF): Achenbach, 1991c) and clinical interview (SCICA: McConaughy & Achenbach, 1992). This is outlined in Figure 1.

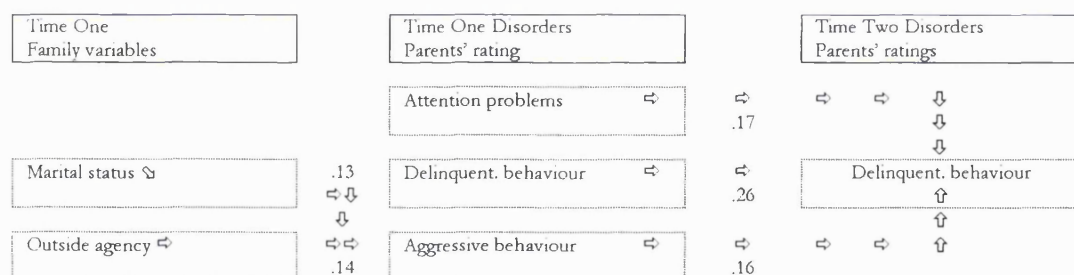
Figure 1 : Multi-informant, Multi-measure Decision Tree



This decision tree is relatively new and untested. However, if successful it would enable the researcher to distinguish between setting dependent symptomatology, co-morbidity and reliability between informants.

Other researchers have used the adaptability of the same assessment measures and computer analysability to investigate predictive relationships in ways not previously possible. Stranger, McConaughy and Achenbach (1992) investigated the relationship between family variables, stressful experiences and symptomatology in a longitudinal study of children aged 4 to 16. Path analysis showed attention problems, delinquent behaviour, and aggressive behaviour at time one made significant contributions to delinquent behaviour at time two, independent of age and gender. Marital status and family's involvement with outside agency support made an independent contribution by significantly predicting time one aggressive behaviour (see Figure 2).

Figure 2: Path Analysis (McConaughy & Achenbach, 1992)



These examples show the recent trend towards a methodology that incorporates computer analyses, hierarchical modelling and multi-version measurement instruments and probably represent the future of symptomatology assessment. However, there are limitations. The model proposed by Sparrow and colleagues (1996) does not offer suggestions on which measures would adequately cover the suggested domains. When measures are suggested, it is inevitable to suggest a dimensional measure of symptomatology as these are most adapted methodologically. However, some researchers have criticised dimensional approaches because of their assumption that dimensions share the same qualitative characteristics at each end of a continuum. For example, there is evidence that mental handicap is qualitatively different from normal intelligence (Rutter & Tuma, 1988; Yule & Rutter, 1987). Unlike semi-structured interviews with an informant and administrator, dimensional approaches are informant

dependent, making informant characteristics particularly salient, with intelligence, emotional state and personal biases all contributing to some degree (Bond & McMahon, 1984). Equally, informant and investigator may or may not share the same perception of the intensity of the child's behaviour, and because most dimensional scales are rated as "a little" to "very much", this kind of disagreement can alter the instrument's validity (Friedlander, Weiss & Trayler, 1986; Ross & Ross, 1982). These tests may not be ideal in studies of short-term treatment outcome, due to length, changes in ratings with repeated administrations, and possible lack of specificity for the desired treatment effects (Quay, 1986.)

Finally, criticism has been targeted at methodological approaches that assume dimensional data can ultimately be categorised into diagnoses. Some researchers have investigated the associations between dimensional scores and the diagnostic categories they are meant to reflect. Edelbrock and Costello (1988) were the first to publish relationships between CBCL scores and diagnoses originating from the parent DISC with 270 clinically referred children aged 6 to 16. The strongest association was between CBCL scores of hyperactivity, delinquency and depression with DISC diagnoses of Attention deficit disorder, Conduct disorder and Depression, respectively. Jensen and colleagues (1993) found significant correlations with 5 to 17 year olds on Anxiety disorders only, and Gould et al., (1993) found relationships only when diagnoses were combined in an Hispanic population of 6 to 16 year olds. Steingard et al. (1992) compared CBCL scores with DSM diagnoses of Attention deficit disorder with hyperactivity and found ADHD scores significantly higher on all CBCL scales but it was a sub-group of boys with ADHD in combination with other diagnoses that accounted for these results. Biederman et al. (1993) who studied 133 clinically referred 6 to 17 year olds and 118 non-referred children, found that subjects with a DSM diagnosis of ADHD and at least one other disorder had significantly higher scores on all CBCL scales and children without co-morbidity. The only study which has used the most current versions of the CBCL scales and DISC was by Kasius et al. (1997) who found that of all subjects with a DSM diagnosis, only 60% scored in the clinical range of the CBCL total problem score, all in expected directions, that is somatic complaints scale predicted anxiety and mood disorders. These studies suggest that while there is some convergence between approaches, neither approach can replace the other and combining them may add information from one approach that is not captured by another.

### *Summary*

Symptomatology is a crucial aspect of childhood assessment. Although the development of the DSM and ICD manuals has contributed to an almost universal approach, some researchers have highlighted concerns around the psychometric strengths and utility of this methodology. Criticisms have centred on areas such as underlying examiner assumptions, informant bias, overly setting-specific measures or lack of clarity regarding behavioural instruments. These concerns have largely been addressed in the current trend towards multi-informant, multi-setting assessments and recent developments in computer technology allowing for sophisticated analysis and design. However, these improvements do not preclude the need for clinical judgement or diagnostic categorisation, nor do they eliminate problems arising from poor research designs. Although, assessment of symptomatology remains an important area for understanding children's functioning and the need for diagnostic information greatly outweighs the disadvantages both for clinicians and researchers (Cantwell, 1996; Fonagy, 1997).

#### 2.4.2 ASSESSING ADAPTIVE AND MALADAPTIVE BEHAVIOUR

Assessment of symptomatology is an important aspect of assessment, however, recent meta-analyses demonstrate that evaluating symptoms alone can lead to an overestimation of treatment efficacy, at least in terms of effect size (Kline, 1993; Weisz, Donenberg, et al., 1995). Many treatments focusing solely on symptomatology leave important areas of functioning untouched, for example, stimulants do not benefit the academic performance or peer relations of children with attention deficit disorders (Hinshaw, 1994). For these areas of functioning to be addressed, assessment methodology must aim to uncover a deeper level of behaviour, that of the child's adaptation to his or her psycho-social environment (Fonagy, 1997).

*"It is obvious... that (we) have to free (ourselves) from those diagnostic categories which are rigid, static, descriptive, or for other reasons alien to (our) field. Only when (we) have done this, will (we) be able to look at the clinical pictures before (us) with new eyes and assess them according to their significance for the process of development" (A. Freud, 1965. p.124).*

The desire for assessment of adaptation is part of the recent emphasis on the importance of positive, pro-social behaviour and a shift away from models that focus exclusively on deficits and vulnerabilities (Cicchetti, 1990; Masten & Braswell, 1991; Masten, Coatsworth et al. 1995; Sroufe, 1990). Consequently, the study of such areas as resilience, social-cognition and competence have all received recent attention in theoretical and research investigations (Cowen & Wyman, 1990; Fournet, Wilson & Wallander, 1998; Hoge, Andrews & Leschied, 1996; Masten, Best & Garmezy, 1990; Rutter, 1990). This interest differs from the historical examination of functioning in terms of specialised populations, such as those with learning difficulties, where the goal of the assessment is to evaluate the child's educational needs or individual age-related functioning. Functioning in this more recent context relates less to learned skills and more to developmental theories integrating the *content* of achievement, emotions and social relationships with the *quality* and *child's ability to access* such processes. Areas such as friendships, understanding of reciprocity, empathy and other characteristics incorporated into adaptive and pro-social functioning have come under particular scrutiny (Berndt & Keefe, 1995; Roberts & Strayer, 1996).

This increased attention has focused primarily on two aspects of adaptation; defining normal functioning and investigating developmental stages in relation to behaviour. By investigating the structure and course of adaptation, definitions capable of encompassing successful and poor functioning can be formulated, building a solid scientific foundation for the study of treatment interventions (Masten et al., 1995). Normal development is of interest in part because of the implications for understanding pathology, in part for anchoring when a child is 'healthy', and in part for understanding the pathways that avoid pathology and maintain adaptive behaviour in provocative environments. This means looking at behaviour within the context of the individual's continuing internal and external maturation and how it compares to a theoretically conceptualised ideal of normal development.

### 2.5.1 MODELS OF DEVELOPMENTAL ADAPTATION AND MATURATION

The study of development and normal and disturbed behaviour, developmental psychopathology, does not have the benefit of a single integrated model of pathology or development. One of the first models was the concept of Developmental Lines created

by Anna Freud in 1963 in response to the need for assessment measures which are not just “valid for isolated parts of the child’s personality”, but look at the child’s “totality” (A. Freud, 1965, p.63). A. Freud considered every aspect of the child’s behaviour to be open to scrutiny as a point along a Developmental Line. Each Line followed the child’s movement from dependent and passive participant to independent actor in the environment, for example, ‘From wetting and soiling to bladder and bowel control’ and ‘From egocentricity to companionship’. Because each Line was broken down into progressive stages, pathology could be traced not only to an area of specific concern but to the exact place where development had become delayed. In addition, developmental delay in one area, matched with precocious behaviour in another, could be clinically evaluated in contrast with a child who was developmentally delayed in all facets of their behaviour. Closely integrated with this approach was the idea that a child’s variation in functioning was as important as the absolute level of functioning attained. Functioning that was unevenly developing could put the child in a vulnerable position for further development, even if some of that uneven functioning was at a high level (A. Freud, 1965)

More recently, Sroufe (1997) also advocated a view of development where behaviour reflects “... a succession of adaptations that evolve over time in accord with the same principles that govern normal development.” (Sroufe, 1997 p.252). In this context behaviour, and the meaning of behaviour, are inseparable and each factor is dependent upon the other. By suggesting that maladaptation emerges as a result of risk factors and the absence of protective factors, the environment and the individual are seen to play an increasingly active role in response to internal and external changes. The history and pattern of the child’s developing functioning, positive and maladaptive, are equally important in this context.

For example, in this model development can be seen as following five potentially different pathways. The first pathway reflects repeated and long-standing failure of the child’s attempts to negotiate developmental milestones successfully. Each failure places the child more firmly on a pathway potentially leading to maladaptive and pathological functioning. A second pathway allows for patterns of maladaptation that, while resulting in similar subsequent difficulties, are the result of distinctly different developmental histories. While current functioning may show no differences between children,



differences in developmental history may prove to demonstrate quite different underlying maladaptive processes when investigated and prove to require different treatment approaches. Conversely, different outcomes may be the result of similar pathways. Sroufe believes that this suggests the need for rethinking treatment approaches and categorisations. Change could be understood to be possible at many points along the pathway. In conjunction with this idea however, change is thought to be constrained by prior adaptation. Negative pathways that are historically and continuously present in a child's life will be more difficult to shift. Negative experiences and failing engagement in positive opportunities may result in an interpretation by the child of benign experiences as malevolent, so that any positive change in the child's behaviour is less likely.

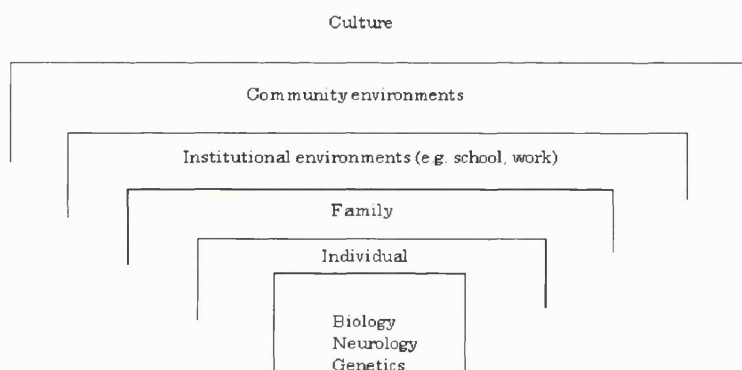
Rather than looking at specific developmental behaviour, Morton and Frith (1996) suggest a series of maxims designed to ensure a comprehensive developmental approach, regardless of theoretical framework or behavioural domain. Although their work focuses primarily on autism, the precepts are generally applicable. Their first is to *Always start with biology* because it is not appropriate to start with behaviour when the same behaviour can be shown to have different causes, for example children who are aloof may have autism or simply extreme shyness. The second maxim is to *Build causal chains*. A single causal statement, such as 'the limbic system causes social impairment', is not enough. Even if it was an accurate statement, Morton and Frith point out that without links in the causal chain from origin to signs and symptoms, the statement is inadequate. The third maxim is to *Give a full account*. Current trends towards focusing on primary features is not enough, while it is tempting to relegate associated features as secondary consequences, this is misleading and leads to circular arguments. For example, in a social account of autism the social deficit might be assumed to be the result of poor language, but in a language based account of autism, language deficit would be seen to result in poor social relations. The fourth maxim is to *Give precedence of the specific over the general*. For example, because mental retardation is estimated to affect 75% of autistic individuals, and affects almost all cognitive functions, it should not be accounted for in the theory of the specific condition of autism. The last maxim suggested in the causal model of Morton and Frith is more of a reminder: *Correlations are not causation*.

Without identifying research findings or theoretical agreement, Morton and Frith's suggested approach maintains the developmental perspective by reconceptualising the

ways in which behaviour is categorised. Wakefield (1997) also argues for changes in the way development is conceptualised, putting forward what he calls the "harmful dysfunction analysis (HDA) of mental disorders". The HDA distinguishes between 'harm' as being determined by current social judgements and 'dysfunction' as a failure of performance in a mental or physical mechanism. Wakefield supports this approach using evolutionary theory which argues that some effects of a mechanism were beneficial enough to an organism to be naturally selected and present in all future generations. Consequently, "those past effects are part of an explanation of the existence and structure of the mechanism in its present form. Such naturally selected effects are the natural functions of the respected mechanisms." (p.276).

Lastly, some researchers have focused on an approach without indicating specific methodology or assessment instruments. For example, Sparrow et al. (1996) also advocate a multi-informant, multi-dimensional approach. Their emphasis is on the hierarchical interaction between contexts and the influence on the child's developing functioning and capabilities (Figure 3).

Figure 3: Possible Influences on Child's Development



In this model, several factors are important, and all have some impact. For example, shared family environment will be influential, but the child's unique experience as an individual within the family appears to have an even greater influence (Plomin, 1986). Equally, individuals experiencing the same trauma will react differently given their different genetic make-up.

The models presented above purposely focus away from the use of medical terminology. Sroufe in particular feels that using a medical model (Lazare, 1973) in assessment does not fully recognise the environment or potential for growing adaptation as factors that might influence overall treatment. By ignoring these elements there is a danger of implying endogenous traits described and catalogued in a way which presents the difficulties as discreet and distinctive, suggesting enduring characteristics.

Cantwell (1996) points out that using medical terminology or modelling is only the result of a misunderstanding and misuse from the people using the system rather than from the system itself. While it is true that medicine often assumes conditions are discrete from each other, many diseases dealt with in the medical framework are multi-factorial in nature, such as hypertension. He feels that a more crucial question for classification of child pathology is whether the pathology has a biological or psycho-social cause, and what can, and cannot, be distinguished between clinical conditions and normality. Cantwell argues that by using phenomenology, rather than theories of aetiology that lack sufficient empirical basis and are under dispute from clinicians of different camps, the classification system is more robust and standardised.

Some professionals have addressed the issue of a lack of empirical data by advocating the use of research strategies that include attention to developmental principles in psycho-social psychotherapy research. For example, Shapiro (1995) points out that recent interest in development has largely been gene related, "without regard to the factors that enhance or inhibit gene expression reaching from the biochemical to the social environment." (Shapiro, 1995, p.31), and in general psychiatrists tend not to be trained in developmental principles or hypotheses.

While there has been important work demonstrating that genetic influences are substantial, psycho-social influences are many and significant (Rutter, Tizard, et al., 1976; Sameroff & Chandler, 1975). The general view of children and adolescents in the psychiatric community tends to be less developmental than is appropriate. In an attempt to merge these ideas, Shapiro (1995) suggests the consideration of the child at each individual developmental stage, taking into consideration the degree of coping and cognitive skills available. The social trends also need to be considered, for example while

physical dependency of the human infant extends into the fifth or sixth year of life, the industrial revolution has increased childcare into adolescence.

Achenbach (1995c) also makes a strong case for the incorporation of the developmental perspective when considering research on psychopathology. He begins by suggesting a useful definition of development to be 'any changes or processes that are typically associated with age' (Achenbach, 1995c, p.57). This definition allows for the usual use of chronological age, but also applies to situations where other markers of developmental may be more appropriate, for example mental age. Whichever marker is used, identifying the differences and similarities between maladaptive and adaptive processes provides the framework for understanding causal factors leading to psychopathology and intervention. Achenbach regards the attainment of data clearly defining the features that discriminate between normality and pathology, and the knowledge of the development level of subjects, to be the most important aspects required for research on child psychopathology. Here, the developmental framework is less about radically altering current methodology and more concerned with firmly containing methodology within a developmental perspective.

### 2.5.2 ASSESSMENT INSTRUMENTS

Instruments measuring this area are not as plentiful as those in other domains (Fonagy, 1997). Two notable exceptions to this are the Vineland Adaptive Behaviour Scales (VABS: Sparrow, Balla & Cicchetti, 1984) and The Child and Adolescent Functional Assessment Scale (CAFAS: Hodges, 1995), with a pre-school version, the Pre-school and Early Childhood Functional Assessment Scale (PECFAS: Hodges, 1995).

The VABS does not measure psychopathology, focusing instead on personal and social capacities. For this reason, it is often used with populations such as learning disabled adults, interested in assessing the level of functioning present. Three domains are assessed, Daily living skills, Communication skills and Social skills, each with associated age-expected capabilities.

The CAFAS has recently been developed and is unique in that it aims to assess adaptation alongside symptomatology. Recent and current functioning are addressed

over five psycho-social areas: Role performance, Behaviour towards others, Moods/emotions, Self-harmful behaviour, Substance Use and Thinking. Examples from the severe end of the scale include children being involved in activities such as car theft, rape and shootings, or 'strange or bizarre behaviour due to frequent and/or disruptive delusions or hallucinations'.

The strength of the CAFAS is its brevity (10 - 15 minutes), its flexibility to work with a range of data collection technique and its assessment over a number of different contexts. However, despite good reliability and validity in the United States, no normative sampling has been conducted in the UK. Additionally, and perhaps most importantly, while the CAFAS purports to measure adaptation, closer inspection casts doubt on how successful this attempt may be.

The coding guidelines require the rating of the lowest or most severe level of functioning, regardless of other strengths in that domain. In addition to ignoring positively adapted behaviours, the CAFAS risks over-representation of symptomatology and an under-representation of the child's more usual mode of functioning. In addition, the list of behaviours raters are asked to review for selection are strongly associated with psychiatric categories and this focus may also skew the emphasis away from the child's overall adaptive functioning.

### *Summary*

Although less fully described empirically, adaptation is increasingly becoming recognised as an important domain of assessment in childhood functioning. One consequence of current trends in child psychology is a reduction in the focus on finding the unique and individual pathogen responsible for any given disorder. Within a developmental perspective looking at adaptation, the assumptions are dramatically shifted and available information is seen differently. For example, disturbance may be the result of early patterns of maladaptive development. Pathology may be understood on a continuum with normal development, and it is important to search for factors that would help the child move away from difficulties to a more normal behavioural pattern. Despite the importance of these issues, there remains a paucity of appropriate measurement.

### 2.5.3 ASSESSMENT OF MECHANISTIC LEVELS OF FUNCTIONING

Fonagy (1997) suggests the measurement of 'mechanisms' in the assessment of functioning in children. This refers to the emotional and cognitive capacities assumed to underlie both adaptive and general psychological development. By measuring mechanisms, researchers can examine whether change has occurred in a manner that is consistent with the development theory within which a specific intervention is grounded (Kazdin, 1985).

While there are generally accepted capacities regarded as important, for example, affect regulation, self-representation and moral judgements, measurement of these capacities is less straightforward and lacking in development (Fonagy, 1997). There are a number of reasons for this, the primary one being that the mechanisms involved can only be indirectly inferred from a child's performance on tasks. It is difficult to ground measurement empirically in such an indirect fashion, and there is not yet an accepted method of demonstrating whether the construct measured is in fact underlying the tasks performed.

One possible exception to this is the assessment of children's Theory of Mind (ToM). In 1983, Wimmer and Perner conducted what has now become a classic study of children's representation of false belief. They used an experimental false belief task to test whether, and when, pre-school children could grasp the notion that it is possible to hold a belief about something, or someone, which is untrue. The ability to appreciate mental states with content such as beliefs, desires, feelings and expectations, requires the ability to take an 'intentional stance'. The false belief research acknowledges the importance of children's recognition that unobservable mental states can affect behaviour and that mental representations can map, but are not the same as, reality. A child's expertise in this area has repercussions for their understanding of the social world.

While much of this work has been conducted with younger children, one example of an assessment for children in middle childhood is Happé's Strange Stories. In the Strange Stories an examiner reads aloud a story to a child, then asks a series of questions, firstly confirming the child's understanding of the content of the story and secondly, eliciting the child's understanding of the character's beliefs and intentions. For example, in one story a young girl character receives a set of encyclopaedias as a Christmas present.

Despite her longing and wish for a rabbit, she thanks her parents for a lovely gift. Children are asked to speculate on the girl's reasons for telling her parents the encyclopaedias were 'just what I wanted'.

Like most ToM tasks, the Strange Stories have well documented reliability and validity (Happé, 1994). However, also like most ToM tasks, the task has been designed for and has mostly been used with, children diagnosed with autism. This is a common characteristic with these kinds of assessments as it is easier to identify and focus on a specific disorder. This limits the usefulness and applications to physiologically healthy children exhibiting disturbed behaviour.

There is an increasing move to include mechanistic assessments designed specifically for outcome research. One measure in development (Affect task: Fonagy et al., unpublished) aims to elicit the child's understanding of the nature and quality of emotional responses by discussing the complexity of characters' reactions to common scenarios such as bullying. In addition to prompting for emotion labelling and justification, children are asked to discuss feelings that might be hidden, consequences of emotional responses and the possibility of displaying one emotion while feeling another.

While psychometric data are still being collected, this style of assessment promises to prove a powerful tool of mechanistic assessment for a number of reasons. Firstly, it is designed to be appropriate with specifically diagnosed populations or more general clinical disturbance. Secondly, the mechanisms addressed are comprehensive, e.g. empathy, ToM, emotional appropriateness, reflectiveness without losing information between domains. Lastly, sophistication of responses demonstrates the child's functioning in areas that may be particularly sensitive to change in treatment, regardless of psychiatric symptoms exhibited.

#### 2.4.4 TRANSACTIONAL ASSESSMENT

The final level of assessment of functioning in children is that of transactions. Identified by a number of theorists and researchers as an important outcome domain (Fonagy, 1997; Garnezy & Masten, 1994; Rutter & Quinton, 1984; Sameroff & Chandler, 1975), transactional assessments focus on the child's interactions with his environment. At their

simplest level, these interactions describe interpersonal relationships, but transactional assessment also examines group dynamics and the underlying processes influencing behaviours between people. Several elements have been identified, e.g. parents, peers, school, local neighbourhoods, while family variables such as parenting style and psychopathology, remain the most extensively studied.

Many psychological interventions focus on this level of functioning, including family therapy, parent training and social programs aimed at conduct disordered children (Patterson, 1982). However, outside these programmes and family oriented clinics, most studies neglect this aspect of functioning. This neglect risks placing the child's functioning outside an environmental context and may seriously impede the accuracy of which children's functioning is assessed (Fonagy, 1997).

## **2.5 CONCLUSION**

The prevalence of untreated or poorly treated psychiatric disturbance in childhood is both financially and practically expensive. The last decade has seen an increased need for both spending accountability and evidence-based clinical practice. This chapter has outlined the essential issues and reviewed the domains crucial for such a comprehensive investigation. The ways in which intervention outcome may be measured is dependent on a number of variables, for example, the clear conceptualisation of health and impairment, and concentrating on the properties and underlying assumptions of the assessment measures used.

It is clear that there are no universally accepted means to assess functioning in childhood. However, any methods used need to fulfil requirements for validity and reliability, be responsive to change, be developmentally sensitive and be clear about the underlying constructs and level of assessment at which the measure is aimed. While the most thoroughly developed measures of functioning are aimed at symptomatology, other levels, specifically adaptation, have been shown to be key to the understanding of change due to therapeutic intervention, remain under-represented. While several measures address this domain in part, no measure fully encompasses the extent of children's adaptation, nor fully meets the requirements set out above.



A measure that aims to realise these goals is the Hampstead Child Adaptation Measure (HCAM), introduced to bridge the gap in the existing methodologies. The HCAM combines the features of categorical approaches to assessment with those measuring dimensionally. It also incorporates symptomatology in addition to pro-social and adaptive responses. The HCAM uses criterion of health alongside deficits by conceptualising development along a continuum. Pro-social aspects of behaviour are crucial for a comprehensive and accurate clinical picture, and their under-representation may lead to an overestimation of pathology (Kline, 1993; Weisz, Donenberg, et al., 1995). The following chapter will introduce the HCAM coding manual and interview, outlining the initial development and expansion from a retrospective to prospective tool.

## INTRODUCTION AND DEVELOPMENT OF THE HAMPSTEAD CHILD ADAPTATION MEASURE (HCAM)

### CHAPTER SUMMARY

The aims of this chapter are addressed in two parts. Firstly, to present the development of the Hampstead Child Adaptation Measure (HCAM), initially appropriate only for retrospective studies, discussing its evolution from an operationalisation of the Child Global Assessment Scale (CGAS; Shaffer et al., 1983). The second part traces the HCAM's development into a measure of adaptation, assessing thirteen domains of childhood functioning, with an associated interview protocol. The inter-rater reliability and relationships with validating measures for the retrospective manual are presented, as well as the development, piloting and revision of the prospective manual and interview.

### 3.1 STUDY ONE: THE DEVELOPMENT OF THE RETROSPECTIVE HCAM MANUAL

#### 3.1.1 INTRODUCTION

In 1993 Mary Target and Peter Fonagy completed one of the few studies investigating the effectiveness of psychodynamic treatment with children and adolescents (Target & Fonagy, 1994a; 1994b). In addition to diagnostic criteria, demographics and symptomatology, Target maintained that an important area remaining unaddressed in assessment of therapeutic change was the global measurement of children's adaptation. To address this, Target used the Child Global Assessment Scale (CGAS; Shaffer et al., 1983), measuring pre- and post-therapeutic intervention levels of functioning in over 700 case charts held at the Anna Freud Centre<sup>1</sup>.

The CGAS was chosen for representing the most widely used and accepted measurement of childhood functioning at that time and in its present form (Global Assessment of Functioning; [GAF]; see Appendix 3.1) makes up Axis IV of the DSM IV (American

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<sup>1</sup> The Anna Freud Centre, formerly known as the Hampstead Child Therapy Course and Clinic, was established in 1947 by Anna Freud; the daughter of Sigmund Freud, and a pioneer in her own right in the field of the psychoanalytic study and treatment of children. As well as treatment, the Centre's work includes

Psychiatric Association, 1994). It identifies psychiatric functioning in children along a continuum from the most severely ill to the hypothetical entirely healthy individual. The coding spans a 100 point range with scores below 70 indicating clinically impaired functioning.<sup>2</sup> Descriptors are behaviourally oriented at each anchor point, depicting behaviours and life situations applicable to children 4 to 16 years of age.

Despite the wide use of the CGAS, Target encountered two difficulties which made it a problematic measure in the context in which she wished to use it, one methodological and one theoretical. The former was a difficulty in achieving reliability, a weakness which had been reported in previous studies (see Steinhausen, 1997; Bird et al, 1990). Despite numerous attempts, reliability between the team of three raters could be brought up only to a Pearson correlation of .75. Discussion between raters revealed uncertainties surrounding anchor points, which were minimally defined, and it was decided to operationalise the scale.

The second and theoretical difficulty had wider consequences, as it became evident to Target and her team that the operationalisation of the CGAS would not be enough to fill firstly her needs, and more importantly, the void in the literature. The primary reasons being the inappropriate focus of the anchor points which are behavioural in origin and centre exclusively on symptomatology (Achenbach, 1995c; Cicchetti, 1990). This was the case despite the mounting evidence from researchers, clinicians and theorists pointing to the importance of assessing pro-social behaviour alongside pathology (Masten & Braswell, 1991; Sroufe, 1990). There was, and remains, an increasing emphasis on the importance of positive, adaptive behaviour and a shift away from models that focus exclusively on deficits and vulnerabilities (Achenbach, 1995c; Cicchetti, 1990, Hibbs & Jensen, 1996; Kazdin, 1996; Masten & Braswell, 1991; Masten, Coatsworth, et al., 1995; Sroufe, 1990). Consequently, the study of such areas as resilience, social-cognition and competence have all received attention in recent theoretical and research investigations (see Cowen & Wyman, 1990; Masten, Best & Garnezy, 1990; Rutter, 1990).

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preventative services, a full-time postgraduate training in child psychoanalysis, a family support service, and a very active programme of research.

<sup>2</sup> There is an historical precedent for this structure, including Lurborsky's Health and Sickness Rating Scale (HSRS) in 1962.

While the CGAS measures global functioning, targeting the child's difficulties, a measurement of adaptation must also include the child's strengths. This shift in emphasis is a subtle but important distinction. By measuring only absence or presence of symptoms, important information about the child's response to his internal or external environment is lost. In the context of therapeutic effectiveness and change, successful coping strategies the child brings to therapy are of particular interest. These successes may exist in parallel with serious deficiency, or equally, the presence of severely limited adaptation skills may not herald the existence of severe symptomatology. Without the assessment of pro-social functioning as well as symptoms, subsequent decisions or conclusions drawn regarding the child will be incomplete. How the commitment to assessing adaptive functioning has influenced and shaped the development of the HCAM will be discussed in further detail later in this chapter.

### 3.1.2 METHODOLOGY

It was decided to develop a manual which would address the need for a pro-social, adaptive approach to children's behaviour, while improving the reliability between raters currently enjoyed by the most widely used measure of children's functioning, the CGAS. Developing this manual required a number of steps: to identify the areas of children's functioning relevant to assessment; to define how children's behaviour manifests in each of those areas; and lastly, how the child's age would affect the level of coding assigned.

#### Identifying Areas to be Coded

The first requirement for the Retrospective HCAM Manual was to establish the important areas of functioning in childhood, that is what areas of the child's capabilities would be considered when arriving at a global score. This was determined from a number of different sources: the information collected during diagnostic interviewing; areas of functioning targeted by the literature to be important during assessment of therapeutic change; and consideration of previous measures which also addressed this difficulty (for a detailed review see chapters one and two).

What was ultimately decided upon were fifteen areas of functioning, or domains, that would cover the relevant aspects of the child's capabilities and would be considered when coming to a global score. These are listed in Table 3.1.1 below.

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TABLE 3.1.1: DOMAINS OF ADAPTATION IDENTIFIED FOR THE HCAM

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1. Responsibility for own body needs
  2. Capacity and motivation for work and learning
  3. Play, hobbies, interests
  4. Frustration tolerance, impulse control
  5. Relationship with parents
  6. Relationship with siblings
  7. Relationship with peers
  8. Relationship with adults outside immediate family
  9. Confidence and self-esteem
  10. Capacity to cope with anxiety
  11. Level and stability of mood
  12. Sexual development
  13. Moral development
  14. Somatisation
  15. Adaptability to changes in routine
- 

This list of domains allowed each rater in the team to focus on a similar set of information when rating the child's behaviour for assessment. Once identified, it was important to explicitly distinguish the different negative and positive aspects of each domain.

#### Positive and Negative Aspects of Each Domain

The second step was to address each domain individually and distinguish between those aspects contributing to, and manifesting as, healthy functioning and those representing impairment. The capacity of different raters to spot the differences between positive and negative capacities may seem self-evident. However, separating behaviour in this explicit manner focused the rater on the type of behaviour the HCAM manual hopes to address, including the underlying expectations for each domain. The intention was to maximise

reliability by specifying what the rater should consider. A brief description is given below, while Appendix 3.2. presents the full rationale for each domain.

*Responsibility for own body needs*

- + looks after bodily care as well as would be expected for child's age and physical capacity.
- refuses or is unable to take this responsibility resulting in , for example, enuresis or encopresis, lack of hygiene, requires dressing, does not eat adequately.

*Capacity and motivation for work and learning*

- + shows curiosity and tries to find out about things at an age-appropriate level.
- interest in learning or the capacity to do so are restricted or absent.

*Play, hobbies, interests*

- + capable of sustained and constructive play and is interested in a wide range of activities.
- often bored and restless and unable to occupy himself. He may flit from one activity to another or he may be unwilling to take an active role in entertaining himself.

*Frustration tolerance, impulse control*

- + able to contain impulses and defer gratification at an age-appropriate level.
- cannot accept normal levels of frustration and shows socially inappropriate behaviour, such as tantrums, excessive demandingness or unacceptable sexual behaviour.

*Relationship with parents*

- + has warm and increasingly mutual relationships with his parents. There is cooperation and pleasure in each other's company as appropriate to the child's age.
- feelings or behaviour obstruct the development of a good relationship, for example, the child is constantly rude, aggressive, withdrawn, anxiously demanding or controlling, etc.

*Relationship with sibling(s)*

- + generally positive relationships with siblings, able to enjoy their companionship, taking into account age and sex differences.
- excessive competition, conflict, or unhealthy dependence between the child and his siblings, which disturbs the balance of the family.

*Relationship with peers*

- + relates well to most other children of similar age, getting on well with groups of children, and individually and developing close friendships with a small number.
- the child is unpopular with other children, or does not attempt to be accepted by them. He may be very shy and timid, over-aggressive, poor in social skills or withdrawn and isolated through choice.

*Relationship with adults outside the immediate the family*

- + relates satisfactorily to adults outside the family. Can be friendly, affectionate, assertive and willing to accept help.
- can be excessively shy, suspicious or hostile with adults outside the family without sufficient reason, or may seek the attention of adults indiscriminately.

*Confidence and self-esteem*

- + feels pleasure and a realistic sense of pride in progress and achievements. Identifies and values aspects of particular strengths, and feels confident in his abilities.
- feels inadequate and worthless and fails to recognise or appreciate accomplishments. Lacks motivation to persist with tasks, giving up easily. Sometimes the feeling of inferiority shows itself, paradoxically, in a tendency to boast excessively of minor, or even non-existent, successes.

*Capacity to cope with Anxiety*

- + possesses a variety of techniques for handling stress which can be used flexibly and appropriately. Able to accept and use help and support when necessary and to hold on to a sense of his own worth even in difficult circumstances.
- relies excessively and indiscriminately on only one or two ways of coping with stress. May produce physical or psychological symptoms as an indirect indication of his distress and anxiety.

*Level and stability of mood*

- + underlying mood is equable without rapid fluctuations or large mood swings, although sufficiently responsive to own internal feelings and external world to show mood appropriate to the situation.
- may find it difficult to shift mood appropriately or may experience rapid changes of mood with seemingly little or no trigger factors.

*Sexual development*

- + recognition of, and pride in, gender identity. Interest in sexual matters should be appropriate to his age and physical development.
- may be inhibited, embarrassed or ashamed and unhappy about normal sexual feelings and about his sexual identity. Alternatively he may be obsessively curious and excessively disinhibited.

*Moral development*

- + sense of his own contribution to events, an understanding that what he says and does affects and influences other people. Able to appreciate that others' points of view may call for equal consideration with his.
- remains the centre of his world and fails to make allowances for the needs of other people. Insists on having his own way.

*Somatisation*

- + generally good health, or, any illnesses or disabilities seem independent of psychological factors.
- physical symptoms for example, allergies, headaches, diarrhoea, insomnia, appear at times of stress.

*Adaptability to change in routine*

- + not intolerably dismayed by occasional changes of school, moves of house, etc. and is able to adapt flexibly to most alterations in general routine.
- reacts with anger or anxiety to minor changes; need for predictability is restricting and inflexible both for child and for other members of the family.

Adding a Developmental Perspective

As clear as the descriptions above could be, the extensive age-range addressed by the HCAM pointed to the need for a developmental perspective, with guidelines on how to rate according to the child's chronological age. This was partly a methodological consideration, operationalisation and ultimately reliability is more easily obtained if it is anchored as specifically as possible, but also theoretical; the need for a developmental perspective in research is becoming more important to clinicians and researchers (for a more complete discussion see chapter two). Two examples of these, *Responsibility for own body needs* and *Capacity and motivation for learning and work* are presented below. For the full domain details, see Appendix 3.3.



### *Responsibility for own body needs*

A physically normal child would generally be able to manage most washing and dressing tasks, and be independent in using the lavatory, by the age of about five years. He or she would continue to need guidance in deciding how often to wash hair, how to ensure adequate diet etc., for a further few years, but would be able to cope with day-to-day self-care relatively competently.

### *Capacity and motivation for work and learning*

In very young children, learning will take place largely through physical play, observation and manipulation. A healthy child will appear alert, socially responsive and keen to explore objects. An active interest in how things work generally progresses in school-age children from manipulation through dismantling and construction, to the increasing ability to do these operations in imagination, and eventually to think about wholly abstract concepts.

### Anchoring the 100 point Scale

The result of this re-conceptualisation maintained the 100 point scale format, with the clinical cut-off point at 70. While coming to a global score, raters considered fifteen different areas of the child's functioning, each of which had been outlined for negative and positive aspects and each of which were considered within the context of the child's age.

The next stage of operationalisation split the 100 point global scale into ten decile ranges. It was not considered adequate to simply label each range, and an effort was made to describe explicitly what was expected within each. A brief description of this anchoring is presented below while the full details, with more specific information and examples, may be found in Appendix 3.4.

- ◆ Excellent functioning ranges from 91 to 100. Children within this range demonstrate exceptional functioning in all aspects of their lives.
- ◆ Good functioning ranges from 81 to 90 and includes children who function well (i.e. at least an average level for his age) in all areas. This child will be able to cope quite

comfortably with everyday situations, with good interpersonal relationships and scholastic achievement.

- ◆ Children ranging from 71 to 80 demonstrate adequate functioning and are generally regarded as being of average maturity and competence for their age. This category would be used where the child has been showing some mild symptoms such as poor schoolwork.
- ◆ Mildly impaired functioning would warrant a score between 61 and 70. In this category the child functions fairly well in most situations, although his ability to cope is rather erratic and liable to break down under stress. These are children who will usually be worrying their parents and probably also their teachers, but whose symptoms may not be evident to acquaintances.
- ◆ More significantly impaired children would be better placed in the 51 to 60 category. These children show variable functioning, coping better with some aspects of their life than with others. This category is used where the child shows a number of established difficulties while the level of impairment in any area should not be more than mild to moderate.
- ◆ Children who fall into the 41 to 50 category show significantly impaired functioning. In this category, others will regard the child as a definite problem as his level of functioning is below expectation in all areas of life. These are children whose difficulties inevitably affect most of their lives, and the disturbance will be obvious to observers. However, they can generally be managed with difficulty within the home and mainstream schooling.
- ◆ This is not the case for children functioning in the 31 to 40 range who will be unable to use ordinary schooling, requiring special educational or medical provision. These children have difficulties in all areas of their life. They may show occasional glimpses of more normal behaviour but are unable to sustain this for any length of time. These are children who have no significant area of their life free from emotional difficulty and whose disturbance is obvious to the most casual observer.

- ◆ Gross disturbance of functioning is exhibited in the 21 to 30 range. Most children whose functioning falls within this category will be regarded as brain damaged, autistic or psychotic, incapable of most simple acts of social and intellectual functioning.
- ◆ At the 11 to 21 range, children demonstrating very poor and dependent functioning, children show extreme impairment in even basic tasks such as toileting and feeding. They are unable to relate acceptably to other people and may show lack of control over aggressive, violent or sexual impulses.
- ◆ In the lowest category, 1 to 10, children show minimal psychological functioning and need constant care and attention, both day and night. These children may be destructive and/or self-mutilating. They show gross impairment in every part of their lives and are unable to relate to others or to communicate in any effective way.

#### Coding Considerations

After the completion of the Retrospective HCAM Manual, it was necessary to outline the coding considerations for rating. At the conception of the manual's structure, it was decided that each child would be considered in relation to other children of the same age, using illustrated case histories and the decile range discussed previously. An overall score would be derived using the domains as a guideline and reference to the important developmental issues in relation to the child's age. The last stage of the manual's development was to address the approach to rating.

Because of the wide age range and pro-social approach the scale needed to be flexible while remaining standardised. One result of this was to consider the child's developmental and environmental context. This was particularly important in cases where the child exhibited uneven functioning. For example, relationships within the family were considered of greater importance for under-fives, whereas peer relationships would be seen as of greater importance for older adolescents. Also, "functioning at school or work" could be the child's capacity to cope with being looked after by substitute carers, nursery groups or attendance at university, depending on the child's age.

It was also decided to take into consideration the child's environment, and adaptive or maladaptive responses to that environment. While fixed factors such as physical disability were taken into consideration, the child's approach to the disability was of utmost importance. Conversely, if the child's impairment, such as restricted play, was due to the mother's emotional impairment, the child would be scored as impaired himself, because the mother's emotional impairment was not a fixed state for herself or the child.

This weighting also included consideration for the child's positive or negative attitude towards the situation. A child who enjoyed activities centred around one or two children, such as chess, model-making or computers, would be regarded as higher functioning than a child with similar social relationships but who felt lonely or excluded from activities involving groups, such as sport. Lastly, pervasiveness and chronicity of problems were also considered when determining rating.

#### The Anna Freud Case Files

Using the revised manual, case records held at The Anna Freud Centre were then re-examined. The documentation available in Anna Freud Centre records are listed below:

- A Social History, compiled from several interviews. This report usually included: the source and timing of the referral; a description of parents and other informants; a description of the child and the presenting problems as seen by these informants; a very detailed personal history of the child from pregnancy onwards; a briefer history for each sibling; an assessment of the parental relationship; an account of each parent's personal and family history.
- A Psychological Evaluation of the child by a clinical psychologist. The assessments used varied according to age and other considerations, but generally both intellectual and projective tests were used (most commonly the WPPSI, WISC-R, CAT, TAT and sometimes attainment tests).

- Reports of diagnostic interviews with the child, usually on two occasions. The diagnostician's aim in these interviews was to discern the psychopathology underlying the child's presenting problems, and to assess his suitability for analytic treatment.
- School reports. These were recorded on a three-page standardised form. In many cases, there were also supplementary documents from the school (assessments of special needs, etc.).
- On the basis of all the above information, a Provisional Diagnostic Profile was compiled in 54% of cases. This Profile integrated the available information, provided a detailed description of the inferred psychopathology, and offered recommendations for treatment.
- Process reports of the content and technique of the analysis. These were used mainly as a source of information about events in the child's life, and his current level of functioning, particularly towards the end of treatment.
- Reports of interviews with parents during the child's treatment. These gave important information about the child's external adaptation and current symptoms.
- In 35% of cases, lengthy formal reports had been written describing the child's difficulties and the treatment problem and outcome.
- Importantly, from the point of view of assessing outcome at the end of treatment, in 25% of these cases, a Terminal Profile or Closing Summary was written to review the original provisional formulation and to describe changes during treatment;
- 41% of files contained reports of follow-up interviews or correspondence with the child or parents.

The case records of all children whose treatment was completed between 1952 and 1991 were considered for inclusion in the study. Cases were eligible for inclusion in the sample if they met the following criteria: (i) treatment had been offered and begun, although in some cases it was very brief; (ii) treatment was undertaken by a member of staff or a trainee at

the Centre; (iii) the frequency of sessions was at least once per week; (iv) the therapist's intention was to treat, not merely to observe, the child; (v) the patient was under 20 years old at the beginning of treatment.

Approximately 20 cases that met these criteria were excluded on grounds of particular confidentiality (e.g. children of staff), and a further 10 because the records were very incomplete. 763 cases remained.

### 3.1.3 RESULTS

#### Inter-rater Reliability of the Retrospective Manual

Using the HCAM Retrospective Manual, fifty cases taken from the Anna Freud Centre's closed case files were randomly chosen and rated for reliability testing between three raters. Interclass correlation coefficients (ICC) were calculated on the global scores assigned as well as the change score (the difference between the start and end of treatment) for each rater, these are shown below in Table 3.1.2.

TABLE 3.1.2: INTER-RATER RELIABILITY OF THE RETROSPECTIVE HCAM MANUAL RATINGS	
	HCAM (N = 50)
Absolute ratings	0.85
Change scores	0.91

In every comparison, change scores were highly reliable although there was more variance in the rating of absolute levels of functioning.

### HCAM Ratings vs. CGAS Ratings

The same raters also coded CGAS scores for the same charts, the order of rating each measure being balanced across cases. Table 3.1.3 below shows the increased reliability, also using ICCs, of manualising CGAS scores into an HCAM rating.

TABLE 3.1.3: INTER-RATER RELIABILITY  
OF THE HCAM AND CGAS RATINGS

	CGAS (N = 50)	HCAM (N = 50)
Absolute ratings	0.75	0.85
Change scores	0.88	0.91

While the change scores remain more strongly reliable than absolute ratings for both measures, the HCAM coding proved to be more highly correlated between raters than concurrent CGAS scores.

### Validation of the HCAM Retrospective Manual

In addition to reliability, the concurrent validity of the HCAM was investigated calculating ICCs between HCAM ratings and number of psychiatric diagnoses, severity of principal diagnosis<sup>3</sup>, and symptomatology. Symptomatology was defined as internalising, externalising, plus a combined total score, as defined by the CBCL (Achenbach & Edelbrock, 1983)<sup>4</sup>. These are outlined below in Table 3.1.4.

TABLE 3.1.4: INTERCLASS CORRELATION COEFFICIENTS BETWEEN HCAM SCORES  
AND FIVE VARIABLES REFLECTING SYMPTOMATOLOGY AND PSYCHIATRIC STATUS

	CORRELATION COEFFICIENT
Total CBCL score	-0.51 ***
Total CBCL internalising symptoms	-0.39 **
Total CBCL externalising symptoms	-0.39 **
Number of psychiatric diagnoses	-0.36 *
Severity of principal diagnosis	-0.32 *

\*\*\* p<0.001 \*\* p<0.01 \* p<0.05

<sup>3</sup> These were taken from the intake interviews at the Anna Freud Centre.

The relationship between HCAM scores and all categories were appropriately negative with adequate significant correlative relationships. The strongest correlation, -0.51 ( $p < 0.001$ ), most likely reflects the global approach of the total CBCL score with the similarly global approach of the HCAM.

### Sensitivity to Therapeutic Change

Proven to be both reliable and valid, the HCAM also proved to be sensitive to changes in psychiatric disorders. From the total sample of 700 Anna Freud Centre case files, approximately 135 children were diagnosed with disruptive disorder from the DSM-III-R (American Psychiatric Association, 1987). When children whose treatment ended within one year were excluded<sup>5</sup>, change scores in this group showed a difference of 9.5 points ( $p < 0.001$ ).

From the same archives, approximately 350 cases met diagnostic criteria on the DSM-III-R for emotional disorder and were grouped into depressive disorder, generalised anxiety disorder, and specific anxiety disorder. Rates of improvement after intervention varied between 50% and 71%, and over half the children were rated above 70 (normative cut-off point) after therapeutic intervention. These results are shown below in Table 3.1.5.

TABLE 3.1.5: RATES OF IMPROVEMENT (%) IN EACH DIAGNOSTIC GROUP ACCORDING TO DIFFERENT OUTCOME CRITERIA.

TERMINATION OUTCOME	DEPRSD N=99 (%)	GEN ANX N=144 (%)	SPEC ANX N=109 (%)	ALL N=352 (%)
No diagnosis	51.4	53.5	53.1	52.8
HCAM > 70				
Not dysfunctional, HCAM > 68	55.4	58.9	58.3	57.9
Reliab improvement HCAM (> 7 pts)	74.3	69.8	72.9	71.9

<sup>4</sup> The CBCL is discussed in more detail in chapter six.

<sup>5</sup> This time exclusion represents an appropriate psychodynamic therapy cut-off point (Target & Fonagy, 1994a; 1994b).



HCAM scores were also used in this group to assess differences in change as a product of differences in therapeutic intensity. The group was divided into less severe and severe psychopathology defined by HCAM scores of 45 or below at the start of treatment. Children in the more severe group were much more likely to show improvement if they were in intensive psychotherapy (four or five times a week) than a non-intensive treatment (78.7% vs. 26.1%). By contrast, the less severely disordered group were as likely to benefit from non-intensive as intensive therapy.

Despite the limitations of retrospective designs, the HCAM appeared sensitive to children's change in functioning as a response to therapeutic intervention. This sensitivity remained despite the historic difficulty of measuring the effectiveness of psychodynamic therapy (Brown, 1987; Kazdin, 1993; Kazdin et al., 1990). Because of the close ties between the development of the HCAM and the Anna Freud Centre, both share theoretical constructs and approach to childhood adaptation. The sensitivity of the HCAM to change was further tested in an environment different in ideology and practice.

#### The Retrospective HCAM Manual Used in a Different Setting

The HCAM was used in a study similarly designed, but with a different theoretical and contextual setting. Jacobs (1996) also used the HCAM to investigate therapeutic effectiveness retrospectively with a group of children aged 4 to 12 years, diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) and receiving a combined therapy of cognitive-behavioural and pharmaco-behavioural interventions in America. Using two formulas developed by Jacobson and Truax (1991) to measure change at pre- and post-treatment functioning, Jacobs found that HCAM scores showed reliable change in 87% ( $p < 0.05$ ) of children. The formula for this was:

$$RC = \frac{x_2 - x_1}{S_{diff}}$$

where RC = reliable change,  $x_2 - x_1$  = the change in HCAM score from pre- and post-treatment, and  $S_{diff}$  = the standard error of difference between the two scores. A second

way of measuring change across treatment also developed by Jacobson & Truax (1991) and investigated in this study was given in the following formula:

$$A = M_1 + 2_{s1}$$

where A = the cut-off point for significant change,  $M_1$  = the mean pre-treatment score for the group and  $2_{s1}$  = the standard deviation for the pre-treatment group. Using this formula 74% of the subjects showed significant improvement ( $p < 0.05$ ).

### 3.1.4 DISCUSSION

This study presented the development of the Retrospective Manual for the Hampstead Child Adaptation Measure (HCAM), a process that began with recognising the importance of assessing pro-social, adaptive functioning as well as symptomatology. Areas of behaviour were identified for assessment, and negative and positive characteristics for each were distinguished. The relationship between age, functioning and appropriate scoring was outlined. Inter-rater reliability was tested and found to be improved when compared with the most prevalently used measure of adaptation, particularly when change scores were considered. Validity was also investigated and found to be significantly related to other approaches towards children's functioning. As an outcome measure, the HCAM was shown to be applicable to chart material from clinics with different approaches to evaluation and therapeutic intervention.

The focus of research in the behavioural sciences has always been intimately linked with the concerns and interests of the relevant culture. For many years, this has meant understanding the issues surrounding actions that are threatening to society as well as focusing on mental health conditions which are inimical to the individual. Recent years, however, have seen an increased interest in behaviours considered to be pro-social in origin as well as processes which contribute to, and maintain, adaptive functioning style (Rutter, 1996; Eisenberg & Mussen, 1997). However, this theoretical move has not been matched by available assessment measures, while the ones that do exist are limited in scope or applicability (Rutter, 1996; Achenbach, 1995b).

The development of the HCAM retrospective manual addressed this paucity in several ways. The first concerns the historical trend for measures used with children to be adapted from work with adults, despite limited evidence of the effectiveness and validity of this approach (Kazdin, 1994; Cantwell & Rutter, 1994). The HCAM, in contrast, is rooted solely in the measurement of children, taking into consideration the particular issues relevant to that period in time. This includes the incorporation of very young children, often missed by contemporary assessment measures, where the most common referral problems are frequently not covered (Rutter & Tuma, 1988).

The second significant addition relates to the lack of developmental approach pervasive in current testing and the need to consider the health or impairment of children's behaviour in the context of their developmental stage (Sroufe, 1997; Wakefield, 1997; Achenbach, 1995c, Morton & Frith; 1996; and Sparrow et al., 1996). The Retrospective Manual approached this by offering developmental guidelines as well as negative and positive anchoring points, outlining and anchoring expected behaviour for each of the age ranges.

### *Conclusion*

These characteristics, when investigated in combination in the current study, showed the HCAM Retrospective Manual to offer a considerable improvement over existing measures of adaptation. The evidence for this is illustrated in the improved inter-rater reliability over concurrent measures, independence from demographic variables and sound discriminate and concurrent validity. Additionally, the use of consideration for age and special circumstances affecting adaptation, such as physical handicap and extreme environmental stress, contribute to the HCAM's clinical utility.

However, there are limitations in a retrospective study. For example, limited available information, which was not collected for purposes of these ratings, and this necessitates cautious enthusiasm. To truly fulfil the requirement called upon in the literature, the HCAM would need to maintain the same success in a prospective study. This would mean controlling the content and quality of information collected, and to assess reliability and validity for each parameter across age bands; particularly in relation to normative baselines. These demands exceed the limits of the retrospective manual and require

extensive revisions as well as the addition of an interview protocol. It is these changes and additions that are the subject of the remainder of this chapter.

## **3.2 STUDY TWO: DEVELOPMENT OF THE PROSPECTIVE HCAM MANUAL**

### **3.2.1 INTRODUCTION**

Moving from an approach suitable for retrospective data to a manual appropriate for current assessment required expanding the range and depth of the information available as well as the scale's complexity. The infinite varieties and types of children's functioning cannot be adequately captured in any single scale based on haphazard samplings of behaviour. Instead there must be enough breadth of information available to allow for consistent rating across circumstances. In addition, the manual must demonstrate clarity of thought to focus the user on what kinds of behaviour are relevant to the approach being used, and how it differs from that of previous assessment measures. The first step in this process was to think in more detail conceptually about each of the HCAM domains and how best to expand them into stand alone sub-scales, or parameters. A second issue related to the best way of collecting the information being assessed. Current clinical interviews focus on what their associated measures are most concerned with, symptomatology, and a new interview protocol was required. Lastly, the revision of the HCAM needed to possess the appropriate psychometric properties.<sup>6</sup>

### **3.2.2 METHODOLOGY**

Moving into a prospective manual required two goals: firstly, a method of retrieving accurate and full information from the informant most familiar with the child's behaviour; and secondly, to manualise an extensive range of behaviours across independent domains to include pro-social and impaired functioning, alongside symptomatology. The interview protocol could draw heavily from experiences with previous clinical interviews, although it needed to be revised to include adaptive behaviour, which existing interviews generally neglect. The manualisation of behaviours across ranges required the broadest foundation possible, to allow for differences in context and circumstances surrounding the child being assessed.

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<sup>6</sup> For a detailed discussion of the characteristics of a sound measure, see chapter six.

### The Development of the HCAM Domains into Parameters

To develop the areas of functioning already identified as fifteen domains in the HCAM into stand-alone parameters of adaptation, while maintaining the integrity of the global score, it was decided that for the purpose of a prospective manual changes to the domain structure would be appropriate. For example, the domain *Coping with anxiety* was felt to be closely related to, and should be combined with, *Level and stability of mood*. Equally, *Adaptability to changes in routine* and *Somatisation* were collapsed into the single parameter *Capacity to cope with stressful events*. Lastly, the *Relationships with parents* domain was split into two parameters called *Relationship with primary and secondary caregiver*. Although for the purposes of this thesis, these are synonymous with *Relationship with mother* and/or *Relationship with father*.

The original establishment of positive and negative characteristics within each domain needed to be developed to include not only generalised descriptors but also information and anchor points to complete a 100 point range. To facilitate this, child development professionals were consulted regarding their areas of specialisation.

In addition to a strong clinical understanding of the pertinent issues concerning the chosen parameter (including the latest relevant theoretical and empirical conclusions), each individual required extensive grounding and experience with a large number of children in a variety of settings. Each needed to be an expert in their chosen field, and collectively there needed to be a wide range of approaches represented to accumulate the fullest knowledge base for the manual. Individuals were contacted separately, and all those contacted expressed an interest in collaborating. Each person was met to discuss the requirements and needs of the project and what he or she felt was most appropriate and possible for them.

It was explained that for every parameter and age group, a child's functioning must be rated on a 100 point scale through from the most severely impaired (1) to the hypothetically perfectly adapted individual (100). As has been previously mentioned, there is an historical precedent for the 100-point scale including the structure of the CGAS. It was also decided to draw on the structure and theories of Anna Freud's *Developmental Lines*<sup>7</sup> (A. Freud, 1963) and The Anna Freud Centre's Diagnostic Profile,

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<sup>7</sup> For more details see chapter two.

both long-standing diagnostic and clinical utilities. While it is impossible to list or describe every possibility, individuals were asked to describe enough concrete examples as anchor points in order that an experienced clinician or researcher would be able to make generalisations across behaviours and circumstances.

Some individuals were comfortable creating parameters from a blank page, while others preferred to be given an initial draft from which they could make alterations and additions. One individual was not able to give the time commitment required and preferred to be interviewed. In all but the last case individuals were willing to revise initial drafts after consultation, usually three to four times. All parameters for all age groups were later revised into a coherent whole. In addition to bringing together the result of many 1:1 collaborations into a coherent unit, the final revision ensured the latest developmental understanding of childhood functioning and adaptation was included and that the aim of pro-social functioning alongside symptomatology was well represented. Table 3.2.1 outlines which age groups were worked on by which professionals, their affiliation and professional role.

TABLE 3.2.1: INITIAL DRAFTS FROM THE HCAM DOMAINS INTO PARAMETERS

AGE RANGE	PROF AFFILIATION	PROF ROLE
2 - 3	Prof. Linda Mayes Yale Child Study Centre	Psychiatrist; Paediatrician; Psychoanalyst; Developmental Psychologist
	Mrs Nicki Model The Anna Freud Centre	Psychiatric Social Worker; Child Psychotherapist
4 - 5	Mrs Nancy Brenner The Anna Freud Centre	Nursery Head Teacher
6 - 10	Mrs Audrey Gavshon <sup>8</sup> The Anna Freud Centre	Child Psychotherapist
	Prof. Linda Mayes Yale Child Study Centre	Psychiatrist; Paediatrician; Psychoanalyst; Developmental Psychologist
11 - 13	Mrs Tessa Barradon The Anna Freud Centre	Child Psychotherapist; Medical researcher
	Mrs Dilys Daws Tavistock Centre	Child Psychotherapist; Author of book series on normal developmental changes

<sup>8</sup> Preferred to be interviewed.

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14 - 18	Dr Geoffrey Baruch Brandon Centre	Director of Young Persons' Counselling Service; Child and Adult Psychoanalyst
	Mrs Dilys Daws Tavistock Centre	Child Psychotherapist; Author of book series on normal developmental changes
	Mrs Anne Hurry The Anna Freud Centre	Child Psychotherapist
	Mrs Marianne Parsons The Anna Freud Centre	Secondary School Teacher; Child and Adult Psychoanalyst
All ranges	Prof. Peter Fonagy University of London	Clinical Psychologist; Psychoanalyst; Researcher into Child Development
	Dr Mary Target University of London	Clinical Psychologist; Psychoanalyst; Researcher into Child Development
	Dr Duncan McLean The Anna Freud Centre King's College Hospital	Psychiatrist in Charge; The Anna Freud Centre; Consultant Psychotherapist, King's College Hospital

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These collaborations were successful, and the result was the first draft of the HCAM manual containing fifteen domains of functioning for ages 2 to 18. The 100 point scale was divided into five ranges of 20 points. The full manual<sup>9</sup> is in Appendix 3.5, and an excerpt from the parameter *Responsibility for own body needs*, 61 – 80 range in the 6.0 to 9.11 age range is as follows:

*"The child is able to manage many aspects of self-care for himself, but remains dependent or uncooperative in other ways, e.g. requires help with bathing, cannot be trusted at 8 years to look before crossing a minor road, will not allow doctor to treat an illness or injury. The child may be unusually accident-prone, or inclined to put himself at risk through trying mildly dangerous stunts, wandering away from adult supervision in public places, etc. He may seem insensitive to his own sensations, so that for instance, he often gets very cold before thinking of doing anything about it. He may be over-careful, refusing to do anything that looks difficult in school gym classes, not so much through fear as through difficulty in judging what is safe or not. The child may tend persistently to eat more or less than is healthy, or be faddy over food so that his diet is not fully adequate. Nocturnal enuresis, or very rare soiling, in the absence of other self-care problems, would probably place the child in this range, although by 9 yrs it might justify placement in the category below."*

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<sup>9</sup> Although these collaborations spanned ages two through fourteen, concessions to space means that only the parameters pertaining to ages six through nine have been included in the appendices. This age range was chosen because it represents the majority of children in the samples discussed in later chapter.

Each parameter combined the developmental and contextual approach of the previous domains, including the positive and negative aspects of each area of functioning while expanding the description to be appropriate for the full scale.

### The Development Of The HCAM Interview Protocol

Once the manual was complete it was necessary to develop an interview protocol that would reveal the information essential for coding across parameters. It was deemed inappropriate to use existing clinical interviews as the coding schemes they reflect usually mean the questions prompt primarily for deficiencies only<sup>10</sup>. For each parameter a series of questions and prompts were created with the understanding that the interview would be conducted with the adult most familiar with the child, regardless of relationship. It was initially intended that the interview would be semi-structured in format, would take approximately one hour and would be coded from notes taken during the interview

The interview proceeded flexibly through a series of questions and associated prompts, asking the informant to describe the child's behaviour and level of functioning during the three months prior to the interview. Interviewees were encouraged to provide behavioural examples wherever possible, to report the child's behaviour in several different contexts, and describe their interactions with others. The full original interview may be found in Appendix 3.6, an example of questions pertaining to the parameter *Relationship with peers* follows:

1. Roughly how many friends does [child] have at the moment? How close are these friends?
2. How easily does [child] seem to make friends? How long do [child's] friendships seem to last?
3. Does [child] involve himself with other children's activities or does s/he wait to be asked?
4. Does [child] prefer group activities or being with one or two others or by him/herself? How does [child] behave in a group?

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<sup>10</sup> The original draft of the protocol emerged from discussions with Mrs Sandra Emmet, Mr Saul Hillman and Ms Jan Stroud.



5. What sort of things does [child] do with his / her friends?
6. Does [child] have arguments or fights with his / her friends? Does [child] share his / her things with others?
7. Are there children who seem to dislike or be aggressive towards [child]? Are there children who [child] seems to particularly dislike or be aggressive towards?

This protocol was then discussed with staff at The Anna Freud Centre during two meetings. The purpose of these meetings was partly to ensure the interview followed sound diagnostic procedure but also that there was consensus regarding the relevance in relation to clinical as well as research goals.

Further revisions were made and eventually a pilot of five interviews with mothers whose children were aged between 3 and 17 were conducted. One goal of the pilot was to smooth out redundant questions, ensure fluidity of administration and to make sure all questions were clear, relevant and within the mother's experience.

However, the primary goal of these interviews was to ensure that enough information, and the appropriate information, was collected and the full use of the coding manual was possible. Two procedures were developed to facilitate this. The first was that all five were coded in their entirety according to the manual parameters, noting where coding was possible and where information was lacking given the questions prompted.<sup>11</sup> The second was the use of the response sheet (see Appendix 3.7). Each interview was scrutinised for common responses to each parameter and logged as per category. Seen in their entirety these sheets offered detailed information about the kinds of information the questions prompted for, allowing for an overview. Table 3.2.2 outlines a sample of two revisions as a result of this pilot.

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TABLE 3.2.2: REVISIONS TO HCAM INTERVIEW PROTOCOL ADMINISTRATION

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ORIGINAL QUESTION	REVISION
Is your child able to take appropriate action by him/herself if he or she is feeling too cold or warm?	What does your child do if he or she is not feeling well?
Is your child capable of tolerating separations from you?	How does your child react to short separations from you?

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<sup>11</sup> The purpose of this coding was for information content only and the data is not considered relevant; it is therefore not presented.

Consensus between raters addressed the practice of rating from notes taken during interviews. It was felt that in addition to the distraction of writing while interviewing, much of the information not contained within the notes was vital to accurate scoring. The possibility of transcribing interviews and coding from scripts was discussed, particularly in the context of additional time and financial burdens required.

These revisions were re-presented to the staff at The Anna Freud Centre and the revised versions, including the decision to transcribe tapes, became part of the clinical intake interviews used by the psychiatric social workers Ms Mary Donovan, and Ms Katy Dearnley and the psychotherapists Ms Susan Yabsley and Mrs Audrey Gavshon. Using the HCAM interview in a 'real-life' clinical setting also contributed valuable comments and suggestions for revision. While these interviews were not appropriate for use in a quantitative study, discussions with the therapists and psychiatric social workers concerning the administration of the interview, use within a larger diagnostic battery and families' responsivity, were enlightening.

Specifically, these comments concerned the ease of administration and coverage of questions. For example, the original protocol began with the parameter *Relationship with Mother*. On reflection, the questions in this parameter could be interpreted as punitive to parents whose first contact with the clinic was to be asked how they spent time with their child. By starting with something less emotive, *Play and Hobbies*, rapport could be established, so that later questions about relationships would seem more natural. Other comments concerned the comprehensive nature of interview, specifically, that parents may refer their child for a particular problem concerning school, but the interview covered many more domains of functioning; here, views were mixed. Some clinicians felt the additional information gave parents time to reflect more holistically about their child's behaviour, offering insight and depth to the situation. Others felt that it was distracting and wasteful to collect the information, when clearly the problem could be traced to a finite and particular area of behaviour. Divisions in thought reflected the nature of the clinician's attitude toward the purpose and benefits of assessment; rather than the HCAM itself, and it was decided to retain the HCAM structure in its entirety. The final version is presented in Appendix 3.8.

### PILOTING THE FIRST HCAM INTERVIEWS

#### *Recruitment*

After ethical approval was received from the University of London (see Appendix 3.9), twenty schools in the London area were approached for involvement in the larger research. Headteachers were contacted through letters explaining the project and inviting the school to participate (see Appendix 3.10). Of these, three schools in London agreed to participate. It was also decided to approach a school in Reading, to sample a more rural/suburban population. Children in all classrooms were invited to take part via the headteacher and a letter home to parents containing information sheets for the child and parent as well as a consent form (Appendix 3.11).

#### *Participants*

Ultimately, 92 families were recruited for the larger study, 30 of which were randomly selected for the pilot. All interviews were conducted with the children's live-in primary caregiver (all mothers in this case) and while all were conducted in English, one mother

spoke English as a foreign language. Table 3.2.3 below outlines the demographic details for this sub-sample.

TABLE 3.2.3: DEMOGRAPHIC PROPERTIES OF PILOT SAMPLE (N=30)			
	VARIABLE	N	PERCENT (%)
<b>Family</b>	Living with both biological parents	16	53
	Living with single biological parent	11	37
	Living with biological parent and parent's partner	3	10
	Child living in other circumstances (e.g. foster care)	0	0
<b>Employment</b>	Professional employment <sup>12</sup>	9	29
	Skilled labour	11	37
	Unskilled labour	5	17
	Unemployed <sup>13</sup>	3	10
	Missing employment values	2	7
<b>Sex</b>	Boys	19	63
	Girls	11	37
<b>Ethnicity</b>	United Kingdom	14	46
	Other European	8	27
	Black African or Caribbean	2	7
	Asian	6	20
<b>Age</b>	Mean age (years)	-	8.42
	Age range (years)	-	6.21 – 11.7

Caregivers were interviewed in their choice of the school, The Anna Freud Centre or their own home.

### 3.2.3 RESULTS

#### Participant Experience of the Interview

A number of important positive attributes were uncovered regarding the interview protocol. Firstly, the circumstances of being interviewed was experienced as both benign

<sup>12</sup> These figures are based on the highest category from adults living with child

and pleasurable to participants. This was not something that was decisively asked for, but came out of spontaneous remarks, attitude toward the project and feedback during the process.

There were similar general themes between people that seemed to contribute towards this. The first was the satisfaction of speaking about their children in detail for a considerable length of time with a genuinely interested participant. Many of the parents commented that they had not stopped to consider these questions themselves previously and being prompted to do so added a dimension to their understanding and experience of their children. This was particularly true of parents with children with higher functioning but was also experienced by parents discussing difficulties.

A second theme that emerged, particularly from parents who reported areas of worry, seemed to be a direct result of the pro-social and comprehensive approach of the HCAM. Parents felt that by the end of the interviewing experience they appreciated the healthier aspects of their child's development much more, recognising areas of no concern or even excellence. Parents frequently remarked spontaneously that 'I guess things aren't as bad as I thought', or 'he *does* do that very well, doesn't he? I suppose I never thought about it.' This did not detract from speaking about the areas that were more troublesome for the children. Rather, looking at the whole, parents often realised the amount of time previously spent thinking about difficulties and neglecting the healthier aspects, which had ultimately distorted their overall view.

In terms of the interview itself, one methodological consideration emerged. Because the HCAM concerns itself with adaptation, something not always easily observable, the parent as a credible informant becomes particularly relevant. One deficiency of the interview protocol was the lack of detailed examples demanded from the parents. For example, while comments such as 'oh he just didn't cope at all, he really just collapsed afterwards' suggest serious difficulties in coping strategies to a specific incident, it is not an appropriate or rateable response for coding purposes because of its lack of specificity regarding the child's actual behaviour. This was subsequently written into the protocol and in the example cited would mean asking questions such as 'how did this manifest? (e.g. sleeplessness, irritability, etc.)', 'how long did it last?' and 'was he like this around

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<sup>13</sup> These figures include adults in full or part-time education

everyone and in all situations?'. This reminder, which included finding out exactly what is meant by conversational words such as 'always', 'impossible' and 'hopeless', was written into the administration. This aspect of the interviewing process is certainly not unique to the HCAM. However, because the HCAM questions cover so much of the child's life in a conversational and relaxed tone, focusing on adaptive functioning as well as impairment, it is an area of particular importance.

### Inter-rater Reliability

Each interview was coded independently by four raters<sup>14</sup> using the full coding manual. Table 3.2.4 shows the range of scores, mean and standard deviations across parameters.

TABLE 3.2.4: HCAM CODING RANGE OF RELIABILITY STUDY

	MEAN	STD DEV	MINIMUM	MAXIMUM
Body needs	84.73	5.85	70	95
Learn & work	85.58	5.31	75	95
Play & hobbies	81.55	6.32	70	95
Confidence, self esteem	83.69	5.96	65	95
Impulse control	80.96	7.05	60	95
Relationship primary	86.19	6.28	60	95
Relationship secondary	74.30	11.20	50	95
Relationship peers	83.96	7.77	60	95
Relationship sibling(s)	83.95	5.43	65	95
Relationship adults	86.69	5.66	65	95
Variability of mood	83.96	5.63	70	95
Sexual development	86.27	5.55	70	95
Moral development	84.37	5.80	60	95
Capacity to cope with stress	82.69	7.26	55	95
Global	83.81	4.35	74	92

This table shows a total range across parameters of 50 to 95, a total mean of 83.81 and a standard deviation between 4.35 to 11.20 (total across parameters 6.53) . The inter-rater

<sup>14</sup> The author gratefully acknowledges the support and perseverance of Mr John Crosse, Mr Duncan Barron, and Ms Karen Janes.

reliability between four independent raters was examined using a two-tailed Pearson's Product moment correlation coefficient ( $r$ ) below in Table 3.2.5.

TABLE 3.2.5: PAIR-WISE INTER-RATER RELIABILITY

	PAIR 1	PAIR 2	PAIR 3	PAIR 4	PAIR 5	PAIR 6	MEAN
Body needs	.48	.42	.57	.54	.46	.30	.46
Learn & work	.36	.46	.55	.26	.47	.22	.39
Play	.43	.31	.38	.46	.31	.61	.42
Confidence	.24	.40	.53	.40	.74	.70	.50
Frustr tolerance	.38	.43	.60	.33	.65	.86	.54
Rel primary	.17	.38	.68	.37	.76	.51	.47
Rel secondary	.70	.72	.80	.77	.68	.93	.76
Rel peers	.46	.44	.70	.39	.74	.97	.61
Rel sibling(s)	.36	.25	.55	.57	.49	.92	.52
Rel adults	.22	.08	.38	.47	.28	.44	.31
Mood	.48	.49	.37	.69	.48	.64	.53
Sex devel	.48	.60	.66	.72	.58	.89	.60
Moral devel	.55	.70	.32	.69	.62	.74	.60
Stress	.11	.05	.33	.40	.27	.64	.30
Global	.55	.51	.72	.71	.76	.85	.68

The first important characteristic of the reliability is that there was some success, if moderate, regarding the expansion of the HCAM retrospective manual with a single global score, into an HCAM prospective manual maintaining the integrity of the global score. However, the inter-rater reliability between pairs of raters regarding the individual parameters shows correlations across a very wide range. While some are of excellent quality too many are only adequate or even poor. There were no uniform patterns regarding rating pairs or parameters to point to consistent difficulties or strengths. In fact, an examination of the raw scores pointed to a discrepancy between the actual differences between scores and the correlation coefficients, with the raw scores not as discrepant as the correlation coefficients would indicate (see Appendix 3.12). This discrepancy might be explained by the limited range of the scores, making criteria for correlations stringent (Kline, 1993). Table 3.2.4 shows the minimum scores falling lower

than 60 only twice, a mean across parameters as 83.64 and a small standard deviation across parameters. This is a reflection of the recruitment of the sample, from mainstream primary schools, and the lack of impairment represented. To address this, intra-class correlations were calculated which take into consideration the distance between the means as well as the absolute difference between raters. Table 3.2.6 outlines these.

TABLE 3.2.6: INTRA-CLASS CORRELATIONS BETWEEN TOTAL RATING GROUP

HCAM PARAMETERS	INTERCLASS CORRELATIONS
Responsibility for own body needs	.65
Capacity and motivation for work and learn	.73
Play, hobbies, interests	.73
Confidence and self-esteem	.88
Frustration tolerance, impulse control	.83
Relationship with primary caregiver	.88
Relationship with secondary caregiver	.87
Relationship with peers	.83
Relationship with siblings	.84
Rel. with adults outside the immed. family	.82
Level and stability of mood	.66
Sexual development	.78
Moral development	.84
Capacity to cope with stress	.76
Global score	.88

The ICC show a more realistic and favourable picture of the reliability. Firstly, the *Global score* maintains the same level of reliability as the previous retrospective manual, while the lowest scoring individual parameter is *Responsibility for bodily needs* (.65). These correlations demonstrate the retention of the highly reliable *Global score* (.88) with all parameters falling in the adequate to excellent range.



### Relationship Between Parameters

The relationship between parameters was also investigated and Table 3.2.7 outlines these.

TABLE 3.2.7: PEARSON CORRELATIONS BETWEEN HCAM PARAMETERS<sup>15</sup>

	Bn	Lw	Co n	Im	Pri m	Sec	Pe	Sib	Oa	Mo	Sd	Md	St
Lw	.28 <sup>3</sup>												
Co n	.28 <sup>3</sup>	.21 <sup>1</sup>											
Im	.23 <sup>2</sup>	.29 <sup>3</sup>	.47 <sup>3</sup>										
Prim	.29 <sup>3</sup>	.11 <sup>3</sup>	.18 <sup>1</sup>	.36 <sup>3</sup>									
Sec	.19 <sup>1</sup>	.03 <sup>1</sup>	.17	.25 <sup>2</sup>	.36 <sup>3</sup>								
Pe	.14	.20 <sup>1</sup>	.35 <sup>3</sup>	.43 <sup>3</sup>	.33 <sup>3</sup>	.45 <sup>3</sup>							
Sib	.01	-.02	.13	.38 <sup>3</sup>	.43 <sup>3</sup>	.25 <sup>1</sup>	.27 <sup>2</sup>						
Oa	.27 <sup>2</sup>	.34 <sup>3</sup>	.06	.21 <sup>1</sup>	.26 <sup>2</sup>	.24 <sup>2</sup>	.42 <sup>3</sup>	-.01					
Mo	.31 <sup>3</sup>	.18 <sup>1</sup>	.38 <sup>3</sup>	.47 <sup>3</sup>	.31 <sup>3</sup>	.20 <sup>1</sup>	.36 <sup>3</sup>	.30 <sup>3</sup>	.30 <sup>3</sup>				
Sd	.38 <sup>3</sup>	.33 <sup>3</sup>	.28 <sup>2</sup>	.22 <sup>1</sup>	.47 <sup>3</sup>	.12	.30 <sup>3</sup>	.01	.34 <sup>3</sup>	.29 <sup>3</sup>			
Md	.41 <sup>3</sup>	.28 <sup>3</sup>	.26 <sup>2</sup>	.36 <sup>3</sup>	.33 <sup>3</sup>	.24 <sup>2</sup>	.38 <sup>3</sup>	.12	.33 <sup>3</sup>	.43 <sup>3</sup>	.48 <sup>3</sup>		
St	.25 <sup>2</sup>	.22 <sup>2</sup>	.40 <sup>3</sup>	.48 <sup>3</sup>	.29 <sup>3</sup>	.27 <sup>2</sup>	.30 <sup>3</sup>	.08	.19 <sup>1</sup>	.45 <sup>3</sup>	.29 <sup>3</sup>	.30 <sup>3</sup>	
Pl	.27 <sup>2</sup>	.36 <sup>3</sup>	.22 <sup>1</sup>	.26 <sup>2</sup>	.31 <sup>3</sup>	.19 <sup>1</sup>	.35 <sup>3</sup>	.17	.30 <sup>3</sup>	.28 <sup>3</sup>	.53 <sup>3</sup>	.29 <sup>3</sup>	.27 <sup>2</sup>

<sup>1</sup>p<.05 <sup>2</sup>p<.01 <sup>3</sup>p<.001

These correlations show a variety of strengths, ranging from *Relationship with siblings* and *Capacity and motivation for learning and work* (-.02) to *Play, hobbies, interests* and *Sexual development* (.53). *Frustration tolerance, impulse control* had a (.30) or higher correlative relationship with eight parameters, while *Frustration tolerance, impulse control* and *Play, hobbies, interests* had seven. Conversely, *Ability to look after bodily needs* correlated less than (.20) with eleven parameters and *Capacity and motivation for work and learning* with ten.

<sup>15</sup> Bn: body needs; Lw: learning & work; Con: Confidence; Im: impulse control; Prim: relationship with primary caregiver; Sec: relationship with secondary caregiver; Pe: relationship with peers; Sib: relationship with siblings; Oa: relationship with other adults; Mo: variability of mood; Sd: sexual development; Md: moral development; St: capacity to cope with stress, Pl: play & hobbies

### Relationship with Demographic Variables

Individual parameter scores were examined for independence from the sample demographic variables. These are outlined in Tables 3.2.8 and 3.2.9 below.

TABLE 3.2.8: PEARSON CORRELATION COEFFICIENTS  
BETWEEN SEX, AGE, IQ AND PARAMETER SCORES

	SEX	AGE	IQ <sup>16</sup>
Body needs	.15	.11	.21
Learning & work	.22	.21	.11
Play & hobbies	.12	.14	.18
Impulse control	.21	.19	.20
Relationship Mum	.23	.21	.15
Relationship siblings	.14	.20	.11
Relationship peers	.24	.15	.22
Relationship adults	.22	.18	.18
Confidence, self-esteem	.18	.21	.22
Capacity to cope with stress	.22	.14	.17
Variability of mood	.19	.12	.09
Sexual development	.20	.20	.10
Moral development	.20	.11	.13
Global	.21	.14	.18

\*p< .05 \*\*p< .01

<sup>16</sup> As measured by the Wisc III-R (Weschler, 1975)

TABLE 3.2.9: ONE-WAY ANALYSIS OF VARIANCE BETWEEN  
HCAM PARAMETERS, EMPLOYMENT AND FAMILY STRUCTURE

	EMPLOYMENT STATUS		FAMILY STRUCTURE	
	F(4, 26)	Sig.	F(3, 22)	Sig.
Body needs	.89	.43	.54	.49
Learning & work	.77	.53	.34	.70
Play & hobbies	.97	.43	.11	.92
Impulse control	1.12	.35	.45	.57
Relationship Mum	1.23	.30	1.17	.32
Relationship siblings	.44	.79	.97	.43
Relationship peers	.84	.47	1.23	.30
Relationship adults	.23	.98	1.11	.42
Confidence, self-esteem	.35	.79	1.57	.23
Capacity to cope with stress	.70	.55	.73	.55
Variability of mood	.59	.62	.84	.51
Sexual development	1.3	.29	1.55	.25
Moral development	.20	.90	1.01	.32

### 3.2.4 DISCUSSION

This study introduced the HCAM Prospective Manual from which there were two primary goals. The first was to test the administration and application of the HCAM interview protocol, the second, to test the reliability and functionality of the HCAM Prospective Manual; particularly its extension into fourteen independent, but inter-related, parameters or sub-scales. Relevant analyses showed a continued lack of predictive relationship between demographic variables and HCAM rating. Inter-rater reliability amongst four raters, in the form of intra-class correlations for individual parameters, reached moderate to high levels. Preliminary investigation of the internal structure and relationships between parameters supported the face validity of the coding manual.

The HCAM interview protocol was designed to elicit information from the caregiver most knowledgeable about the child's behaviour; in this case, the child's mother. The selection and revision of interview items followed the guidelines recommended in the literature, as discussed in section 5.1 (Clark & Watson, 1995; Foster & Cone, 1995; Loevinger, 1993; Cortina, 1993; Comfrey, 1988). In particular, attention was given to the

conceptualisation and intended utility of the HCAM Prospective Manual. For example, Foster and Cone (1995) distinguish between two types of assessment measures; those that aim to assess underlying latent traits and those measuring behaviour. The intention for the HCAM was to ensure its sensitivity to changes in behaviour due to therapeutic intervention and for the parameters to contain enough discrimination to target differing aspects of functioning, while remaining focused on the same construct, that is adaptation. The success of the interview design is indirectly borne out in the analyses of the information captured in the coding manual.

One example of this success concerns high levels of inter-rater reliability in all but two parameters; *Responsibility for Body Needs* and *Level and Stability of Mood*. There may be a number of possible reasons for these moderate results. The first is the limited range and variance in scores (Kline, 1993). *Body needs* in particular might have been affected by sampling effects, as examination of the raw data revealed that troubles described by mothers generally concerned resistance to washing or dressing, rather than more substantial concerns such as self-harming. While the same sampling difficulties may also influence *Variability of mood*, there are other potential explanations. The first relates to difficulties in coding, as the parameter focuses on externalised mood disorders, such as aggression, as well as internalised emotional states, such as depression. While both styles of disturbance would be conceptualised as equally maladaptive, it may be difficult for raters to easily compare and contrast the two when finding a single parameter score. The confusion may lie within the parameter conceptualisation, requiring restructuring to adequately focus on a single, non-confounding paradigm (Clark & Watson; 1995).

This confusion between internalising and externalising representations of disturbance in mood may also be affecting the mother's reporting of the child's behaviour. A number of researchers have reported children's reluctance to share with parents the issues most affecting their general mood and happiness (Olweus, 1991; Smith & Sharp, 1994a; 1994b). There is a possibility that parents are less aware of their children's more internalised moods, that is sadness or worry, and are more likely to report on the externalised ones, that is aggression or frustration, which are readily visible. There is some evidence for this supposition as Pearson correlations show *Variability of mood* and *Impulse control* to be the second most strongly related parameters of all the parameter pairs.

Other between parameter correlations highlight structural characteristics of the HCAM manual. While Cronbach's alpha coefficient is the usual method for the investigation of homogeneity, a number of researchers also recommend inter-item correlations to ensure strong internal consistency does not compromise validity (Clark & Watson, 1995; Boyle et al., 1996). This suggestion is supported with the HCAM where, although the alpha coefficient demonstrates a high level of homogeneity between parameters, there are differing correlation coefficient strengths between parameter pairs. For example, *Capacity to cope with stress* and *Impulse control*, and *Relationship with peers* and *Moral development*, have stronger relationships than those between *Relationship with siblings* and *Learning & work*, and *Relationship with peers* and *Responsibility for body needs*. This structure demonstrates the HCAM's sensitivity to different aspects of functioning, without compromise to the underlying construct; adaptation, by recognising that some areas of functioning will be more, or less, related to others.

### *Conclusion*

From these results, it may be preliminarily concluded that the HCAM is reliably measuring an independent and consistent phenomenon. The parameters chosen are separate domains of functioning, but collectively reflect the underlying paradigm intended, that is adaptation. Additionally, despite the range of ages assessed and the need for differing criteria to reflect developmental stages, the HCAM coding is independent of age, IQ and sex.

However, there are areas of caution. The first is the self-selected nature of the sample. While the nature of this type of research makes any other kind of selection process unethical, it should be kept in mind throughout the thesis. The most prominent difficulty, however, is the range of functioning assessed. None of the children in the sample were referred for clinical reasons, and subsequently the range of the manual used was limited. These issues are addressed in the following chapter. However, while expanding the sample will identify more accurately any existing problems with the *Variability of mood* and *Responsibility for body needs* parameters, there may be added difficulties with the *Mood* parameter which may require more investigation; including comparison with validating measures of mood, with child as informant (discussed in chapter six).

## REVISION OF THE HAMPSTEAD CHILD ADAPTATION MEASURE (HCAM)

### CHAPTER SUMMARY

The aim of this chapter is to present the revision and expansion of the Hampstead Child Adaptation Measure (HCAM) prospective manual. Specifically, enlarging the existing scales for each individual parameter and increasing scale anchoring by incorporating narrative examples and clinical vignettes. The inclusion of a clinically referred sample is also discussed, as is inter-rater reliability and preliminary investigations into the structure of the final manual.

### INTRODUCTION

The retrospective manual of the HCAM operationalised the CGAS by identifying fifteen domains of development which would need to be considered when arriving at a global score. Descriptors of negative and positive attributes for each domain, as well as age guidelines, were also written into and considered when arriving at the global score. The first formulation of the prospective manual expanded these domains into parameters and elongated the descriptors and age guidelines into a 100 point scale for children aged 2 to 18. Intra-class correlations showed average and above average reliability between four raters.

Despite the success of the retrospective and initial prospective manual, two characteristics of the previous studies necessitated further development. The first was the six of fifteen parameters scoring below .8 on the inter-rater Pearson correlations. Although reliability of the *Global score* remained high (.96), the discrepancy between raters on some parameters reflects limitations with the manual affecting reliability, and consequently, validity. The second was the untried nature of the manual on a clinically referred sample of children. Experience and discussion between raters revealed that the more severely impaired a child's functioning was, the more difficult it was to isolate an appropriate code outlined within the 20 point descriptions. While the level of impairment in the previous studies was limited enough not to be unduly affected, future use of the HCAM required revision. A corresponding revision to the interview protocol was also written.

Achieving these goals involved three separate objectives. The first was to increase the sensitivity within the 20 point ranges of the 100 point scales, especially within the clinical range of the scale; the second was to thoroughly refine, develop and clarify the construct underlining each parameter; and lastly, to elucidate the approach to coding, including decision-making and emphasis. These issues are addressed in turn below.

#### 4.1 STUDY ONE: INITIAL PILOTING OF INTER-RATER RELIABILITY

##### 4.1.2 Methodology

###### *Recruitment*

The families in this study come from the larger, clinically referred sample, recruited from three Child and Family Units in the North London area (n=42).<sup>1</sup> After receiving ethical approval from the University of London and the Camden and Islington Health Authority (Appendix 4.1), lengthy discussions between the author and the administrative and clinical staff determined a procedure for recruitment.

If a family wished to participate, details were discussed directly between the author and the family. Although the occasion did not arise, it was decided that only in instances where information was uncovered that might require the involvement of social services, would details of family involvement or information be exchanged between the research and clinical staff.

###### *Participants*

When the clinical staff originally received a referral and discussed when, and if, an initial interview might be offered, it was also decided if the family should be excluded from the research. 42 children and mother pairs are included in this sample. Table 4.1.1 outlines

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<sup>1</sup> Hornsey Rise Child and Family Unit, Cannonbury Child and Family Unit and The Anna Freud Centre.

the criteria and numbers of families excluded, while Table 4.1.2 outlines their demographic information.

TABLE 4.1.1: EXCLUSION CRITERIA FOR CLINICAL SAMPLE (N=42)			
CRITERIA	TOTAL	BOYS	GIRLS
Outside the age range of 5.0 to 11.11	584	339	245
IQ below 70	4	3	1
English spoken without fluency	27	18	9
Diagnosed or suspected of a pervasive developmental or psychotic disorder	9	7	2
Major medical or neurological condition	22	15	7
Family stress, deemed inappropriate <sup>2</sup>	30	12	18
No suitable guardian for child <sup>3</sup>	25	18	7
Approached, but declined to participate	149	95	54

<sup>2</sup> e.g. family in shelter, Court Order to attend clinic

<sup>3</sup> e.g. recent foster placement



TABLE 4.1.2: DEMOGRAPHIC PROPERTIES OF CLINICAL SAMPLE (N=42)

	VARIABLE	N	PERCENT (%)
<b>Family Constel.</b>	Living with both biological parents	19	45
	Living with single biological parent	21	50
	Living with biological parent and parent's partner	2	5
	Child living in other circumstances (e.g. foster care)	0	0
<b>Employment status</b>	Professional employment <sup>4</sup>	4	10
	Skilled labour	6	14
	Unskilled labour	4	10
	Unemployed <sup>5</sup>	1	2
	Missing employment values	27	64
<b>Sex</b>	Boys	27	64
	Girls	15	36
<b>Ethnicity</b>	United Kingdom	23	55
	Other European	5	12
	Black African or Caribbean	8	19
	Asian	6	14
<b>Age</b>	Mean age (years)	-	7.4
	Age range (years)	-	6.5 – 11.17

From the group of children, 10 scripts were randomly selected for an initial pilot study.

#### 4.1.3 RESULTS

To address the first goal of improving reliability within the clinically disturbed ranges, ten scripts were chosen randomly for the purposes of rating. It was acknowledged that the small sample size dramatically limited the statistical power available. However, the exercise focused on beginning the process of teasing out differences in rating, rather than

<sup>4</sup> These figures are based on the highest category from adults living with child

<sup>5</sup> These figures include adults in full or part-time education

supporting an existing circumstance with analysis. These scripts were rated independently by two raters, outlined below in Table 4.1.3.

TABLE 4.1.3: SPEARMAN CORRELATION BETWEEN RATERS FOR CLINICAL PILOT STUDY	
Responsibility for own body needs	.07
Capacity and motivation for work and learn	.58
Play, hobbies, interests	.66
Confidence and self-esteem	.11
Frustration tolerance /Impulse control	.85
Relationship with primary caregiver	.10
Relationship with secondary caregiver	.68
Relationship with peers	.86
Relationship with siblings	.74
Rel. with adults outside immed. family	.51
Level and stability of mood	-.13
Sexual development	.42
Moral development	.51
Capacity to cope with stress	.42
Global	.32

These results show the level of agreement between both raters across all parameters is quite varied, ranging from *Variability of mood* (-0.13) to *Relationship with peers* (.86). In addition to *Mood*, three other parameters showed extremely low correlations; *Body* (.07), *Relationship with primary caregiver* (.10) and *Confidence and self-esteem* (.11). The majority of parameters demonstrated moderate reliability, while *Impulse control* (.85) and *Rel peers* (.86) were more acceptable.

#### 4.1.4 SUMMARY

Despite the acceptability of the higher end results, taken as a whole, the results were unacceptably poor. To address this, differences between ratings on individual scripts were discussed in depth by the raters. In some instances these discussions highlighted a lack of anchoring in the manual, in others, a confusion concerning the similarities and

differences between two parameters. The finalised results of this discussion are discussed later in this chapter. The revised reliability after discussions are presented below.

## 4.2 STUDY TWO: SECOND PILOTING OF INTER-RATER RELIABILITY

### 4.2.1 Methodology

Following extensive discussions between raters, a second pilot study of 20 scripts were randomly selected and coded from the same larger referred sample of children outlined above.

### 4.2.2 RESULTS

Table 4.2.1 below outlines the results of Pearson correlations between ratings on each parameter.

TABLE 4.2.1: INTER-RATER RELIABILITY FOR SECOND PILOT STUDY	
	Pearson Correlation
Responsibility for own body needs	.57
Capacity and motivation for work and learning	.71
Play, hobbies, interests	.68
Confidence and self-esteem	.31
Frustration tolerance /Impulse control	.65
Relationship with primary caregiver	.40
Relationship with secondary caregiver	.69
Relationship with peers	.89
Relationship with siblings	.70
Rel. with adults outside immed. family	.60
Level and stability of mood	.45
Sexual development	.53
Moral development	.45
Capacity to cope with stress	.52
Global	.64

It can be seen that some significant improvements were accomplished in the second pilot study. Scores ranged from (.31) for *Confidence and self-esteem*, to (.38) for *Relationship with peers*, with the majority of results obtained moderately acceptable.

#### 4.2.3 SUMMARY

These results show significant improvements were accomplished in the second pilot study. All parameters showed improved reliability and would be considered acceptable in the context of a pilot study (Kraemer, 1981; Nunnally, 1960). Once again, discrepancies within individual scripts were discussed between raters. These discussions, combined with the second set of improved results, supported the decision to move into a more extensive and final revision of the manual, and subsequently larger reliability investigation. These are outlined below in the next study.

### 4.3 STUDY THREE: FINAL REVISIONS TO THE HCAM MANUAL AND INTERVIEW

#### 4.3.1 Introduction

During discussion between raters it emerged that in almost all cases there was high agreement concerning which 20 point range best described a given subject's functioning, but that within each 20 point range there remained wide discrepancies.

Several factors appeared to be contributing toward not reaching satisfactory reliability, the most significant of which concerned the utility of the coding manual itself. In particular, the parameter descriptions failed to provide information sufficiently detailed to enable raters to reliably discriminate between, for example, descriptions meeting a score of 50, 55 or 60. A second contributing factor was the lack of developed explanations outlining the difference and similarities between parameters, and where priority should be given. For example, when and how should learning a new hobby be included in the *Learning and work* parameter in addition to the *Play and hobbies* parameter. Lastly, the focus of the parameter itself, what behaviours should be included and in what context, was somewhat overlooked in the original manual and required to be operationalised. The remainder of this chapter details these revisions to the manual,

presenting the final inter-rater reliability and preliminary investigation of the HCAM's internal structure.

#### 4.3.2 METHODOLOGY

##### Narrative Examples

To address the lack of differentiation within the 20 point ranges for each individual parameter, it was decided to offer a narrative example for every five point increment. Only the sections relating to the manual for the children aged 5.11 to 9.11 were revised, partly because it would have been overly ambitious to revise more age ranges and partly because the majority of the children in the study fell within this group. From these revisions it was expected that raters would successfully extrapolate with sufficient accuracy to children who were one year younger or older.

Obviously, it is impossible to include all of the information relevant to making a decision in a short Narrative example. The goal was to include the specific information that distinguished this five point anchor from the higher or lower one. To define further each anchoring point, three descriptive categories; Concerns, Considerations and Associated parameters accompanied each Narrative. The Concerns category outlined areas in the Narrative that showed signs of difficulty and could be seen as the justification for not moving the child's score higher. Equally, the Considerations category outlined areas in the Narrative showing strength, and could be seen as justification for not moving the child's score lower. The Associated parameter category listed the names of other parameters that would be affected by the information given in the Narrative, and whose scores in turn might therefore need to be altered. Table 4.3.1

gives an example of the anchoring for Scoring 45 on the parameter *Frustration tolerance*, *Impulse control*. See Appendix 4.2 for the full spectrum of Narratives for this parameter.

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TABLE 4.3.1: NARRATIVE REPRESENTING A SCORE OF 45  
FROM THE HCAM PARAMETER " FRUSTRATION TOLERANCE, IMPULSE CONTROL "

---

"He wants to do everything and when he can't he gets terribly upset and starts getting very angry about (schoolwork) and really distressed. And I say 'well, leave it, don't do it' and he shouts 'no, I've got to do it' and it just goes on and on and on. If he's tired and tetchy and it's got to the stage, especially lately, where he's throwing too many things around then I'll say 'finish it off tomorrow!' Although he has been naughty and silly at school, well silly but not awful, but at home he's become a nightmare. He swears and throws things around and hits me and kicks me. He just has no control at all, and it's usually so stupid because it's something he really wants to do anyway." (boy, aged 9)

---

Considerations:	Better tolerance of frustration at school
Concerns:	Verbal and physical expression; particularly towards mother. Frequency and duration of episodes, triggered by ordinary occurrences
Associated parameters:	Relationship with primary caregiver

---

The goal of the Narrative was to give coders rated examples against which their own interview could be judged and to specify the graduations of functioning along the 20 point ranges described. The purpose of the Concerns, Considerations and Associated Parameter categories was the same, but also to reproduce, as closely as is realistic given the context, the experience of having a proficient rater sitting with the coder and explaining their thoughts. The most difficult task of learning to use any measure reliably is internalising the way that particular measure interprets the information presented. By explicitly demonstrating the information in this format, it is hoped to encourage that process to a greater and quicker proficiency.

### Clinical Vignettes

While the Narratives and corresponding categories are an effective and helpful learning tool, they are also cumbersome. It was decided to convert these Narratives into the more streamlined format of Clinical Vignettes. The information previously illustrated as Concerns and Considerations were incorporated into the information given by the

interview informant to produce a four or five sentence paragraph. The information listed under Associated parameters would need to remain implicit and dependent upon the coder's experience. An example of the vignette matching the Narrative listed above is given in table 4.3.2. The full spectrum for this parameter is listed in Appendix 4.3.

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TABLE 4.3.2: CLINICAL VIGNETTE REPRESENTING A SCORE OF 45  
FROM THE HCAM PARAMETER " FRUSTRATION TOLERANCE/IMPULSE CONTROL "

---

The child has severely restricted ability to control his impulses. Moderate stresses such as schoolwork or parent saying 'no' result in frequent temper tantrums that most likely contain verbal and physical aggression. Severity may vary across situations, although generally most adults in child's environment will be aware of the existing problem. (boy, aged 9)

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#### Parameter Introductions

As discussed previously, the feature most likely to distinguish between any two measures is the way each interprets the information given. With this in mind, it was important to thoroughly detail the focus of each parameter represented. This detailing took the form of writing introductory explanations in the manual for each parameter. By explaining what was, and was not, meant and covered by the parameter it was hoped to standardise the approach and interpretation during rating. This section offers two examples; *Responsibility for own body needs* and *Capacity and motivation for work and learning*, while the full introductions for each parameter can be found in Appendix 4.4.

#### *Responsibility for Own Body Needs*

Children are increasingly expected to take responsibility for their own physical well being and safety, at an age appropriate level. At the more mild and moderate levels this may be an unwillingness to follow parental rules regarding safety and hygiene (e.g. crossing the road, brushing teeth), reluctance to be examined by medical professionals, a lack of appropriate range and quantity of food and a lack of increased autonomy concerning self-care (e.g. dressing). At the more severely impaired levels this may manifest as self-harming, frequent drug-taking or severe risk-taking (e.g. acceptance of late-night car rides from strangers).

A child's functioning in this parameter may be related to the parent's ability or desire to support the child's emerging independence. It is important to remember to measure the

absolute level of functioning. Any confounding information with, for example, the child's relationship with his parent, would be coded appropriately in the relationship parameter.

### *Capacity and Motivation for Work and Learning*

This parameter addresses the child's capacity for learning and is a combination of approach and level of achievement attained. Factors to consider are the child's curiosity towards discovering new information, enthusiasm in conquering new skills or knowledge, and finally the child's ability to utilise the school or work setting. This may manifest as questions prompted from encountered stimuli, attainment in the school setting, independent research through books or collecting, or an enthusiasm to show people new information or ideas learned.

There are two contexts where a child can show interest in learning, school and recreation. While the child's learning recreationally is of interest and should be considered, school is an important developmental area for this age group and should be given priority. For the same reason, while the child's motivation and attitude towards learning are important factors for consideration, the child is expected to achieve at his appropriate mental age.<sup>6</sup>

New raters sometimes confuse this parameter with *Play, hobbies, and interests*. The distinction lies in learning demanding a sustained interest or focus and presenting a challenge to the child, particularly in the context of school. Play is self-directed, not necessarily goal oriented and may be more fantasy based rather than reality based. An example of where play would become recreational learning might be if a child's interest in trains prompted him to learn the engineering histories of British trains and how they differ from American trains.

### Coding Guidelines

Coding of the HCAM was considered similarly to a three-dimensional model. Like a child's mobile, effecting one parameter score effected the others associated with it, to a lesser or greater degree. It was decided that each script be read in its entirety, indicating in the margin pieces of information as well as associated parameter(s) effected. This

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<sup>6</sup> Mental age is a more appropriate criterion than chronological age as it incorporates circumstances that may interfere with the child's potential attainment, e.g. learning disabilities.



allowed the rater to return to the script and search through for information relevant for coding each individual parameter.

For the purpose of these studies the HCAM considered the child's level of functioning over three months preceding referral, regardless of the information contained in the interview script. In instances where an event caused a reaction and the event, but not the reaction, was further in the past than the cut-off point it continued to be considered. There were instances where knowledge from a previous time period was considered. For example, if a particularly stressful event and reaction occurred prior to the three months deadline, and no stressful event had occurred since then, this was considered when coding that parameter.

As in the retrospective global scoring used previously, the child's developmental and environmental context continued to be considered. By superseding the global scoring covering all domains and ages with individual parameters for each age group, this became a much more refined process. Making substitutions such as "functioning at school" with "capacity to cope with being looked after by substitute carers", were no longer necessary as they had been written into the different age parameters. Instead, it was required to differentiate between expectations of a first year pupil at the age of six, and a child leaving primary school at eleven. The environmental context remained the same, with accommodation for absolutes such as physical disability, and without accommodation for areas that are open to changes over time, for example, mother's mental health.

#### Revisions to the Interview Protocol

The final changes to the interview protocol focused on maximising the information produced with the minimum number of questions. This was possible because of the explicit and firm understanding reached concerning what each parameter of adaptation draws upon.

#### Validity of Revisions

To verify the validity of the manual revisions professionals from different contexts were once again consulted. The narrative and clinical examples were rated blindly by Dr Mary

Target<sup>7</sup> and Dr Karin Ensink<sup>8</sup> and any discrepancies were discussed and incorporated into the revised manual. Additionally, Drs Target and Ensink, as well as Drs Anna Graham and Cheryl O'Anderson<sup>9</sup>, offered general feedback about the structure, balance and overall presentation of the manual.

Using the revised interview protocol and manual, a second assessment of inter-rater reliability using data from 30 families was conducted. Although families were randomly selected, 15 were chosen from the sample recruited from primary schools and 15 from those recruited from local Child and Family Guidance Units to be scored by four independent raters. In this way it was hoped to fully extend the coding to the full range of the parameter scales.

#### 4.3.4 RESULTS

Thirty scripts, 15 chosen randomly from within the referred group and 15 randomly from within the normative group, were chosen for final investigation to the manual revisions. The range and standard deviations across parameters are outlined below in Table 4.3.3.

TABLE 4.3.3: PARAMETER RANGES ON FINAL RELIABILITY

	MEAN	STAND DEV.	MINIMUM	MAXIMUM
Body needs	80.96	7.34	65	98
Learning & work	79.59	11.47	35	97
Confidence	75.91	12.56	40	97
Impulse control	70.87	16.69	35	98
Relation. primary caregiver	79.70	12.81	41	98
Relation. secondary caregiver	69.48	15.73	40	96
Relation. peers	76.06	15.64	38	98
Relation. siblings	77.68	12.49	39	98
Relation. adults	83.38	9.00	41	100
Variability of mood	75.81	12.78	43	100
Sexual development	81.77	9.48	62	100
Moral development	76.38	12.35	40	99
Capacity to cope with stress	67.99	15.21	36	96
Global	86.00	11.32	58	98

<sup>7</sup> Clinical psychologist, psychoanalyst, researcher into child development

<sup>8</sup> Clinical psychologist, researcher into child development

<sup>9</sup> Specialist Senior Registrars in Child Psychiatry

It can be seen that scores ranged from 35 to 100. This lower level reflects sampling limitations. The children recruited for the study in its entirety were drawn from out-patient and normal populations and do not therefore display the severity of impairment required to score below the 35 range on the HCAM scales. This is discussed in further detail later in this chapter.

The next stage of analysis addressed the internal structure of the manual by investigating the relationship between parameters using Pearson correlations, shown below in Table 4.3.4.

TABLE 4.3.4: RELATIONSHIP BETWEEN PARAMETERS (PEARSON CORRELATIONS)<sup>10</sup>

	Bn	Lw	Con	Im	Prim	Sec	Pe	Sib	Oa	Mo	Sd	Md	St	Pl
Lw	.55***													
Con	.45***	.50***												
Im	.67***	.61***	.64***											
Prim	.58***	.54***	.56***	.67***										
Sec	.46***	.36***	.37***	.47***	.49***									
Pe	.57***	.62***	.70***	.76***	.71***	.35***								
Sib	.58***	.59***	.38***	.75***	.49***	.31**	.68***							
Oa	.56***	.51***	.35***	.49***	.57***	.22*	.58***	.43***						
Mo	.64***	.59***	.69***	.67***	.66***	.41***	.64***	.54***	.51***					
Sd	.43***	.45***	.51***	.54***	.55***	.16	.57***	.45***	.42***	.56***				
Md	.72***	.63***	.63***	.83***	.68***	.39***	.76***	.76***	.56***	.68***	.58***			
St	.54***	.47***	.75***	.70***	.59***	.50***	.63***	.50***	.28**	.62***	.54***	.64***		
Pl	.54***	.70***	.60***	.64***	.64***	.17	.83***	.68***	.53***	.65***	.58***	.70***	.49***	
Glb	.72***	.76***	.77***	.91***	.84***	***.55	.80***	.73***	.57***	.79***	.63***	.89***	.86***	.74***

\*p<.05    \*\*p<.01    \*\*\*p<.001

These correlations show the relationship between *Sexual development* and *Relationship with secondary caregiver (father)* to be the weakest (.16), while *Moral development* and *Impulse control* to be the strongest (.83).

<sup>10</sup> Bn: body needs; Lw: learning & work; Con: Confidence; Im: impulse control; Prim: relationship with primary caregiver; Sec: relationship with secondary caregiver; Pe: relationship with peers; Sib: relationship with siblings; Oa: relationship with other adults; Mo: variability of mood; Sd: sexual development; Md: moral development; St: capacity to cope with stress; Glb: global score; Pl: play & hobbies

The internal consistency of the HCAM parameters was also measured by the calculation of Cronbach's alpha, which indicated a consistency of  $\alpha = .90$ , neither rising nor lowering with the exclusion of any individual parameters.

Table 4.3.5 presents the pair-wise correlations between sets of raters and Table 4.3.6 the ICC between raters. Both sets of scores are shown in comparison to the initial reliability scores presented in chapter three previously.

TABLE 4.3.5: ICC COMPARING THE INITIAL RELIABILITY WITH REVISED RELIABILITY<sup>11</sup>

	Pair One		Pair Two		Pair Three		Pair Four		Pair Five		Pair Six	
	First	Scnd	First	Scnd	First	Scnd	First	Scnd	First	Scnd	First	Scnd
Bn	.48	.56	.42	.73	.57	.62	.54	.70	.46	.61	.30	.91
Lw	.36	.76	.46	.81	.55	.91	.26	.78	.47	.90	.22	.97
Pl	.43	.64	.31	.70	.38	.76	.46	.64	.31	.74	.61	.93
Con	.24	.87	.40	.84	.53	.87	.40	.74	.74	.86	.70	.95
Im	.38	.86	.43	.90	.60	.89	.33	.75	.65	.78	.86	.90
Prim	.17	.84	.38	.81	.68	.85	.37	.70	.76	.77	.51	.84
Sec	.70	.83	.72	.83	.80	.89	.77	.78	.68	.91	.93	.98
Pe	.46	.91	.44	.86	.70	.90	.39	.84	.74	.88	.99	.99
Sib	.36	.92	.25	.78	.55	.75	.57	.63	.49	.72	.92	.98
Oa	.22	.60	.08	.65	.38	.80	.47	.52	.28	.83	.44	.92
Mo	.48	.80	.49	.78	.37	.83	.69	.69	.48	.79	.64	.92
Sd	.48	.61	.60	.63	.66	.71	.72	.72	.58	.74	.89	.90
Md	.55	.78	.70	.83	.32	.71	.69	.72	.62	.70	.74	.94
St	.11	.72	.05	.91	.33	.71	.40	.80	.27	.68	.64	.89
Glb	.41	.82	.37	.92	.54	.89	.41	.82	.54	.87	.54	.95

The pair-wise correlations between each of the four raters showed variability of strength. The weakest relationship was between pairs one and four and in both cases agreement on

<sup>11</sup> Bn: body needs; Lw: learning & work; Con: Confidence; Im: impulse control; Prim: relationship with primary caregiver; Sec: relationship with secondary caregiver; Pe: relationship with peers; Sib: relationship with siblings; Oa: relationship with other adults; Mo: variability of mood; Sd: sexual development; Md: moral development; St: capacity to cope with stress; Glb: global score Pl: play & hobbies

four of the 14 parameters was .69 or less. The strongest rating pair was pair six, with all correlations at .89 or higher.

TABLE 4.3.6: ICC BETWEEN RATERS; ORIGINAL AND REVISED

	First	Second
Responsibility for own body needs	.65	.73
Capacity and motivation for work and learn	.73	.84
Play, hobbies, interests	.73	.81
Confidence and self-esteem	.88	.87
Frustration tolerance /Impulse control	.83	.88
Relationship with primary caregiver	.88	.83
Relationship with secondary caregiver	.87	.86
Relationship with peers	.83	.91
Relationship with siblings	.84	.82
Rel. with adults outside immediate family	.82	.75
Level and stability of mood	.66	.84
Sexual development	.78	.73
Moral development	.84	.83
Capacity to cope with stress	.76	.86
Global	.88	.80

Intra-class correlations between parameters also increased from the previous chapter, although three domains, *Responsibility for body* (.73), *Relationship with adults* (.75) and *Sexual development* (.73) remain marginal below the intended coefficient target of .8.

#### 4.3.4 SUMMARY

This study presented the final revisions to the HCAM prospective manual, including: the addition of clinical vignettes for every five point increment across the fourteen parameters; additional narrative vignettes to offer comparisons from existing scripts; and parameter introductions to focus the rater to the particular coding guidelines set out in the manual. The success of these changes were proven with the adequate range and spread of ratings used across parameters, moderate to high inter-rater reliability and

sound internal structure; shown with appropriate between-parameter correlations, and high alpha coefficients. In particular, the variability in the between-parameter correlations reflected the sensitivity of the HCAM to differentiate the patterns of functioning, suggesting different aspects of adaptation to be more related to some than others.

While there are no inherent weaknesses in this study, it is limited. To fully investigate the manual revisions, a larger study is required, with greater sample size and additional analyses; this is the subject of the following chapter.

#### **4.4 STUDY FOUR: INVESTIGATION OF GLOBAL SCORE**

##### **4.4.1 INTRODUCTION**

Historically, previous versions of the HCAM assigned a global score as the mean of the total parameter scores. Given the importance of an accurate global assessment, it was decided to explore the possibility of adjusting the global score to greater reflect the child's functioning. Specifically, where children were functioning unevenly across parameters, there might be some justification for adjusting their global score accordingly.

##### **4.4.2 METHOD**

To investigate different ways of assessing global functioning, four different global scores are discussed:

- 1) Intuitive mean - scored by rater from the 'general feel' of script
- 2) Global mean - mean of parameter scores
- 3) Global adjusted - if the difference between minimum and maximum parameter score is greater than ten, the global mean is lowered by six points
- 4) Global adjusted2 - if the difference between minimum and maximum parameter score is greater than:
  - a) 10, global mean score is lowered by 6
  - b) 20, global mean score is lowered by 8
  - c) 30, global mean score is lowered by 10
  - d) 40, global mean score is lowered by 12
  - e) 50, global mean score is lowered by 14

Table 4.4.1 compares the reliability between raters using the different global scores.

TABLE 4.4.1: ICC BETWEEN RATERS; ORIGINAL AND REVISED		
	FIRST	SECOND
Global Mean	.98	.98
Global Adjusted	.94	.96
Global Adjusted2	.94	.96
Global Intuitively	N/A	.90

This table shows the global mean to be the most reliable rating system, at .98, correlation for both reliability studies. Table 4.4.2 compares the relationship between different global scores.

TABLE 4.4.2: PEARSON CORRELATIONS BETWEEN DIFFERENT GLOBAL SCORES			
	GLOBAL MEAN	GLOBAL ADJUST	GLOBAL ADJUST2
Global adjust	.98***		
Global adjust2	.98***	.99***	
Global intuit	.90***	.89***	.88***

\*p >.05      \*\*p >.01      \*\*\*p >.001



These tables show little difference, in the form of high correlations, between each style of global scoring. Table 4.4.3 compares the relationship between HCAM parameters and different global scores.

TABLE 4.4.3: PEARSON CORRELATIONS BETWEEN HCAM PARAMETERS AND DIFFERENT GLOBAL SCORES

	MEAN	ADJ	ADJ2	INTUIT
Responsibility for own body needs	.72***	.72***	.72***	.65***
Capacity and motiv. for work and learn	.71***	.69***	.69***	.61***
Play, hobbies, interests	.72***	.67***	.67***	.67***
Confidence and self-esteem	.71***	.74***	.74***	.64***
Frustration tolerance /Impulse control	.84***	.83***	.83***	.72***
Relationship with primary caregiver	.74***	.72***	.72***	.71***
Relationship with secondary caregiver	.53***	.62***	.62***	.48***
Relationship with peers	.80***	.77***	.77***	.72***
Relationship with siblings	.67***	.65***	.64***	.60***
Rel. with adults outside immed. family	.51***	.45***	.46***	.49***
Level and stability of mood	.73***	.71***	.72***	.71***
Sexual development	.60***	.60***	.59***	.57***
Moral development	.80***	.78***	.78***	.68***
Capacity to cope with stress	.74***	.80***	.80***	.90***

\*p< .05 \*\*p< .01 \*\*\*p< .001

This table shows the global mean form of scoring to be the most highly correlated 11 times, intuitive global only once, adjusted four times and adjusted2 three times.

#### 4.4.3 SUMMARY

This study investigated the accuracy and validity of using an arithmetic mean as the HCAM *Global score* above three other alternatives. Given the high reliability in rating, high correlation between the different global scores and frequency of association with individual parameters, the differences between approaches is minimal. However, while differences between methods are slight, the best form of global rating remains the simple mean of all parameters.



## **4.5 DISCUSSION**

The previous chapter reported the successful development of the HCAM retrospective manual as well as the piloting of a manual suitable for prospective investigations. This current chapter outlined the final revisions in the prospective manual with a specific focus on the inclusion of a clinically referred sample of children. Details of the extensive amendments to the utility and approach towards coding were presented in addition to internal consistency and inter-rater reliability.

### Functionality of the HCAM Manual and Protocol

A large portion of this chapter was devoted to presenting the final revision of the HCAM manual and protocol. The inclusion of parameter introductions, narrative examples and clinical vignettes represents a co-ordinated manual versatile in a variety of contexts. Most importantly, the manual revisions produced improved reliability and internal consistency as presented in the previous chapter, and is discussed in more detail below.

Revisions to the manual fell under two objectives: firstly, to clarify the focus of the measure; and secondly, to anchor the scale to a specific and standardised protocol. Anchoring the scale incorporated the views from a number of mental healthcare professionals and academic researchers working from varying perspectives, ensuring an eclectic underlying knowledge base. The second intention, clarifying the specific dynamics of coding, ensured a consistent and complete approach, aimed at maximising psychometric properties and clinical utility.

From its original conception as a retrospective measure, the utility of the HCAM has been consistently focused towards a measurement of change in functioning due to therapeutic intervention. In retaining these features in the prospective manual, particular issues were addressed. The first is the problem of co-morbidity in the assessment of children (Cantwell & Rutter, 1994; Richters & Cicchetti, 1993; Wakefield, 1992a, 1992b; Kazdin, 1990). Although the HCAM is not diagnostic, and aims to measure a single construct, each of the parameters is intended to measure different aspects of adaptation. The problems of diagnostic co-morbidity, and parameter inter-dependence, are essentially the same; how can behaviour be grouped together in a manner that meaningfully describes a phenomenon, without encroaching on other, related,

circumstances. The HCAM coding guidelines addressed this by clarifying what each parameter targeted, in relation to relevant issues in child development. An example of this is the relationship between *Play and hobbies* and *Learning and work* where it was necessary to tease out where work and play become indistinct from one another, and which type of learning activities, school-based or home-based, would take precedence.

Incorporating this approach into revisions is particularly salient in the context of previous assessment tools for children being downwardly adapted from adult measures. Some researchers have argued that there has been a failure of these systems to take into account the effects of experience, developmental history and contextual factors for children in their own right (Cooper & Michels, 1988; Jensen & Hoagwood, 1997; Rutter & Shaffer, 1980; Vaillant, 1984). Additionally there is strong evidence that children's level of impairment may dramatically shift between circumstances (Kazdin, 1994; Cantwell & Rutter, 1994), and the interplay of functioning across different contexts, for example, home versus school environment, needed to be explained explicitly for each of the parameters.

This chapter investigated the success of these changes in a number of ways, namely, post-revision reliability and resulting internal consistency (discussed below). However, the issue of clinical utility is outside the scope of this chapter. While, the HCAM's capacity to discriminate between a clinically referred and normative group, in comparison with existing measures, is discussed in chapter six, sensitivity to change due to therapy remains outside the scope of this thesis. This is discussed in further detail in chapter seven.

### Internal Structure of the HCAM

The internal structure of the HCAM was investigated in three ways, as suggested by Clark and Watson (1995): score distribution across parameters, Cronbach's alpha coefficient and inter-item correlations between parameters. Although additional analyses are appropriate for a more detailed psychometric investigation, these are the subject of the next chapter.

Despite the inclusion of a clinically referred sample, score distributions across parameters range from 35 to 100, excluding the most severe representation of pathology (1-34 range). This floor effect reflects the limitations of an out-patient sample (discussed in chapter seven), and should be considered throughout all subsequent analyses. Within these constraints, only *Responsibility for body needs* and *Sexual development* demonstrated limited use of the scale, with small standard deviations. All other parameters show adequately ranged distributions. The reasons for restrictions in these two parameters are likely to be the same as those discussed in the previous chapter, as investigation of the raw data confirms the lack of score range in these two parameters. Further investigation into the manual questioned the consistency across parameters, particularly in relation to *Body needs* and *Sexual development*. It was concluded that while the severity levels were consistent, the consequences of the severity might realistically require different responses from healthcare professionals. For example, in the case of life threatening anorexia versus a child with severe learning disabilities placed in a specialised school. The implications of this structure, and the appropriate use of the HCAM manual with an in-patient sample, is discussed in chapter seven.

The investigation of Pearson correlations between parameters showed an overall increase in coefficients compared with those reported in the previous chapter; related in part to the manual revisions and in part to the increased variance amongst scores (Kline, 1993). The strongest relationships between items were consistently with the *Global score: Relationship with adults* and *Relationship with secondary caregiver* at the weaker end, and *Impulse control*, at the stronger end. *Impulse control* was also the most strongly related parameter to other individual parameters while *Relationship with secondary caregiver* and *Sexual development* were least related.

Consistent with the previous chapter, the correlations between different pairs of parameters vary, reflecting the interplay between different aspects of children's development. For example, the pair *Responsibility for body needs* and *Relationship with peers*, and *Capacity and motivation for learning* and *Relationship with siblings* demonstrate a weaker relationship than the pairs *Confidence and self-esteem* and *Capacity to cope with stress* or *Moral development* and *Impulse control*. This structure confirms the HCAM's sensitivity to measurement of a single construct; adaptation, (confirmed by the high alpha coefficient) while remaining sensitive to the domains of behaviour that inform overall functioning.

For example, children with moderate difficulties with their gender identity, for example, preferring to play only with children of the opposite sex, may not show impairment in other aspects of their development. Conversely, children with moderate difficulties with their self-esteem or confidence for example, cannot engage in new situations or experiences, will demonstrate impairment in the majority of their daily life. This presenting structure supports the suggestion by some theorists that development and functioning do not compromise a cumulative and consistent accretion, and secondly, the pace, pattern and interaction between domains of functioning are equally, or more important, than the overall global attainment (A. Freud, 1965; Rutter & Rutter, 1993).

#### *Inter-rater Reliability*

Manual revisions and additions greatly increased the reliability between raters on the majority of parameters. There are, however, three parameters that remain below the  $r=.8$  level: *Responsibility for body needs*, questioned in the previous chapter; *Level and stability of mood*, and *Sexual development*. The lack of reliability in these parameters requires further study, either for revision towards greater reliability, combination with other domains or an acceptance that it is not appropriate to be measuring that aspect of functioning in this way. Further information concerning the psychometric properties of specific domains will be investigated in chapter five, while the validity of individual parameters is discussed in chapter six.

#### Investigation of the Global Score

Given the importance of capturing the child's global functioning, it was decided to do a detailed examination of the HCAM *Global score*. Four types were investigated, an arithmetic mean (mean); a straight assignment from the rater (intuitive); a score adjusted for variability across parameters (adjusted) and a final score also adjusted for variability across parameters, but with greater correction to the final score (adjusted2). It was concluded that while very little differences between these scores were demonstrated, the arithmetic mean continued to be the most robust.

## Conclusion

From its origin as a retrospective measure with a single global score, to the current expansion into fourteen sub-domains of functioning, the goal of the HCAM has consistently aimed towards the measurement of adaptation, with a view to measuring change over time. Historically, change over time has been measured most accurately by global measures while dimensional measures offer a deeper understanding of the different components of behaviour making-up the child's functioning (Endicott et al., 1976; Bird, Canino, Rubio-Stipec & Ribera, 1987; McGlashan, 1973). By combining these two styles, the revised HCAM manual, presented in this chapter, aims to retain the strongest characteristics of both approaches.

This chapter has gone some way to realising this goal. Within the limits of an out-patient sample, score distributions show appropriate ranges and standard deviations. Pearson correlations between parameters are as expected, including the different strengths of some parameter pairs over others, and the strength of associations with the *Global score*. A detailed investigation of the *Global score* has also confirmed the use of an arithmetic mean across analyses.

However, the attrition rate across the three years presented is high and this may skew or polarise the results. The number of boys to girls in the clinical sample is also skewed, with roughly two-thirds of the sample being male, and while this reflects the ratios seen in clinics, the effect on the results remain undetermined. Areas requiring further consideration focus around the moderate reliability of the *Relationship with adults* parameter, and moderate reliability and limited range of scores used in the *Responsibility for body needs* and *Sexual development* parameters. Additionally, while many of the analyses conducted in this chapter form part of a psychometric investigation, additional analyses are required, including the expansion to a larger sample size. This is the focus of the next chapter.

## PSYCHOMETRIC PROPERTIES OF THE HCAM

### CHAPTER SUMMARY

The aim of this chapter is to present the investigation of the psychometric properties of the HCAM. Score distribution, internal consistency and consistency over time are presented for a normative and clinically referred sample of children.

### 5.1 INTRODUCTION

Clark and Watson (1995) report 1,726 English language articles published in the Psychlit database from 1989 through 1994 addressing the creation of new assessment material. Sixty one percent of these articles assessed some aspect of psychopathology, personality or adjustment, twenty percent addressed attitudes and fifteen percent addressed interpersonal relationships. While it has become self-evident that assessment measures must prove characteristics of validity, the precise nature and procedure for the establishing validity are not always settled (Chambless & Hollon, 1998). From a position of science, validity is crucial, separating psychology from non-scientific approaches to assessing human behaviour. As practitioners are increasingly asked to justify cost and procedures, validity is becoming important from an administrative point of view as well. Without validity the process of assessment, and ultimately treatment, becomes a hit and miss affair (Beutler & Howard, 1998).

#### 5.1.1 CONTENT VALIDITY

There are many aspects to the assessment of validity, the most well known is referred to as content validity and involves evaluating the meaning of scores produced (Foster & Cone, 1995). This can be approached from different angles, and requires a number of stages.

#### Conceptualisation

The first step in ensuring adequate content validity is the conceptualisation of the aim, task and desired process. Because human behaviour can be broken down into increasingly smaller units, there is theoretically no limit to the number of psychological

constructs that can be operationalised into scales (Anastasi, 1993; Weisz & Weiss, 1992). For example, the broad construct of peer relationships may be studied, but so could the narrower concept of intimacy or sharing. Consequently a crucial issue to be addressed in the initial stages of development is precisely which construct is to be targeted. While precision is of utmost importance, the creation of increasingly narrow target constructs does not automatically denote accuracy. Loevinger (1993) argues that scales based on a "deeper knowledge of psychological theory" (p.64) are always more illuminating than those made overly specific for pragmatic reasons.

Foster and Cone (1995) distinguish between measures of behaviour and measures designed to assess hypothetical constructs or latent traits. Behavioural measures assess individual responses, observable actions that can be rated by an observer or by self-assessment. In contrast, hypothetical construct measures must be inferred from consistent differences between the behaviour of different individuals or of the same individual across time. Although constructs may sometimes be observed, the behaviour is not synonymous with the behaviour itself. Rather, "the assessor views the behavioural measure as merely a sign of the underlying latent trait or process (p.249)." The distinction between these types of measures is not always obvious. Foster and Cone (1995) cite the example of the Beck Depression Inventory (BDI; Beck, Ward, Mendelsohn, Mock & Erbaugh, 1961) which may be seen as a measure of the construct depression, or as an index of cognitive, motor and physiological behaviours. Researchers are not always explicit about which category their measure falls under, and this may have repercussions for future analysis.

#### Creation of an Item Pool

Once the tasks of clearly defining and reviewing the content of the new scale have been achieved, the task of writing individual items may begin (Anastasi & Urbina, 1997; Angleitner & Riemann, 1991). Two key issues are that the initial item pool should be broader than one's own theoretical view and should include content that will ultimately be unrelated to the core construct. This cautious approach allows future analysis to delete irrelevant items, but remain as inclusive as possible. It also gives the best possible chance of insuring that each aspect of the construct is covered evenly and adequately between domains. Comfrey (1988) has addressed this issue as well by suggesting the use of "factored homogeneous item dimensions". In addition to covering each aspect of a

construct, it is necessary to ensure that enough items represent each area. One way to do this is for the proportion of items devoted to each content area to be proportional to the importance of that content in the target construct (Comfrey, 1988).

This approach to scale construction involves several periods of item writing, including the endeavour for each item of the scale to be empirically accounted for, and requires systematic conceptual and psychometric analysis. Factor analysis might reveal which items may be combined into several sub-scales or that the initial item pool is inadequate or uneven (Kline, 1993). Alternatively, it might suggest that conceptually two extremes of the theoretical construct are two distinct entities.

The next stage of item development is writing good items. Language is crucial, and should be simple, clear and appropriate for the target populations. This should include language that attempts to assess more than one characteristic, particularly if they leave no viable alternative response. For example, "I would never hit my child because they don't misbehave" confuses the issue of the child's behaviour with incidents of physical discipline. This question also excludes the possibility of never hitting as a punishment for other reasons other than misbehaviour. In addition, items must be worded very carefully to avoid measuring individual differences alone. Finally, items will be of little value unless they reflect variability in the targeted sample and can sustain validity over time and geography. For example, questions such as "some days I am more tired than others", which will apply to almost everyone, or "I am always jealous", which will apply to almost no-one, are of little use, and trendy expressions that reflect changing culture and specific geographical location should also be avoided.

After items are chosen, a decision must be made as to which format is to be used. There is a variety of choices, including dichotomous (yes-no, true-false), Likert-type (three or more options), checklists, forced-choice, and visual analogue. Checklists permit respondents to scan a list and check the appropriate item, they have proven problematic because they are more prone to response bias than formats that require a single response for every item. Forced-choice formats ask the respondent to choose between alternatives that represent different constructs. These have also proven problematic because they provide limited normative, inter-individual information. Visual analogue formats provide a free range of responses along a continuum, for example sad, very sad,



unbearably sad. These can be labourious to score but are most useful when a single or few measurements are required or when the target construct is simple.

The two most dominant response formats are dichotomous responding and Likert-type responding. Comfrey (1988) criticises dichotomous responding formats in favour of multiple-choice formats. He asserts that dichotomous testing with unbalanced response distribution (measures where most people answer all items either true or false) may lead to distorted results. Clark and Watson (1995) argue that this may be avoided by "inspecting individual item frequencies during scale development and eliminating items with extreme response rates" (a cut-off point of 95% of all respondents with the same answer is typical) (p.312). Dichotomous formats have the added benefit of respondents answering many items in a small amount of time.

Likert-type scales are used with a number of different response formats. The most popular are frequency (never to always), degree or extent (not at all to very much), similarity (like me to not like me) and agreement (strongly agree to strongly disagree). Using an odd number of responses with these formats can frequently mean an over-abundant use of the middle option. An even number of responses eliminates this problem by forcing the respondent to choose a side they wish to fall on.

While interview based assessments will not directly fall under the dictates above, guidelines concerning simplicity of language, generality and item elimination remain sound.

### 5.1.2 STRUCTURAL VALIDITY

A second type of validity is structural validity, namely how well does the internal structure of the scale parallel the external structures of the target construct. There are generally three conceptual models in use: quantitative models that differentiate individuals with respect to degree or level of the target construct; class models that seek to categorise individuals into qualitatively different groups; and more complex dynamic models, emphasising the need for items to reflect the underlying trait fluctuations (Clark & Watson, 1995). The most commonly used method of choosing structure and

ultimately assessing structural validity, is to measure the extent of accuracy represented in the selection of items (Kline, 1993)

#### ITEM SELECTION

Currently, the most widely used method for item selection is internal consistency. Choosing which items may remain and enrich the remaining items, and which should be removed, is an exercise in balancing consistency of items with breadth of content. Structural analysis is required to determine which items should be eliminated and which should be retained.

Many researchers decide this by showing the measure to have an acceptable level of internal consistency, usually by the use of an index such as the coefficient alpha (Cronbach, 1951) or K-R 20 (Kuder & Richardson, 1937), although this has been criticised by recent researchers (Clark & Watson; 1995). Because internal consistency refers to the overall degree to which the individual items that make up the scale are correlated with each other, it is important to ensure that inter-correlations indicate scale items assess a single underlying construct. While a scale cannot be homogeneous unless all the items are correlated, a homogeneous scale may still be measuring more than one construct, which in the pursuit of developing a theoretically accurate and single construct assessment, may be a more important issue. Because using K-R 20 and alpha coefficient are measures of internal consistency and not homogeneity, they may require additional measures to ensure accurate psychometric analysis, particularly for scales containing 40 or more items (Cortina, 1993).

Clark and Watson (1995) suggest using inter-item correlation instead, working towards a target mean inter-item correlation rather than trying to achieve a particular level of alpha. They recommend target correlations of .15 to .50. The wide range reflects the differences between target constructs that are broad (such as extraversion) with lower correlations more desirable and narrower constructs (such as talkativeness) where a higher level of inter-item correlation is required. Clearly, averaging highly correlated items with low correlated items would achieve an acceptable average correlation. To avoid this, all individual inter-item relations should fall somewhere within an acceptable range. Finally, there is some evidence that increasing internal consistency beyond a certain point may compromise validity (Boyle et al., 1996; Loevinger, 1966a, 1966b). One reason for

this is the redundancy of highly weighted items, which add nothing to the content of the scale but will increase inter-item correlations significantly. A scale will yield far more information if it contains differentiated items with a more moderate inter-item correlation; concern for internal consistency should never compromise validity.

In addition to the techniques mentioned above, some researchers suggest using factor analysis to investigate the unidimensionality of a scale. Items that load weakly (below .35) on the first factor would be leading candidates for removal, whereas items over-strongly associated on the first factor and weakly on remaining factors would be excellent candidates for retention. Factor analysis may also help with the creation of subscales. While combining unrelated items and subscales under an overall score is counter-intuitive, it also makes no sense to divide substantially inter-correlated items arbitrarily. The items in the subscale must be shown to correlate more substantially with each other than with items in other subscales, but not too significantly lest they be measuring a different underlying construct. This subtlety can be greatly helped by factor analysis.

Before any decisions can be made, it is prudent to examine the cause for an item's lack of consistency. Strategies for deciding which factors should and should not remain are various and depend largely on the overall structure in use. Factor analyses are usually used when the target population is conceptualised as multidimensional and subscales are required. While increasingly controversial, factor analysis, if wisely used, can be a powerful tool.

Item response theory (IRT) and its relationship to internal consistency is beginning to gain attention, particularly with the increased use of computer generated testing and analysis (see chapter two). IRT is based on the assumption that each response reflects an underlying trait and that this trait can explain most of the variations between responses. Relationships between response and its trait can be described by a function called the item characteristic curve. Standard intelligence tests make use of this function by not administering the first and easiest items to their older subjects, unless they fail items presented to them, because it is assumed they would have passed them given their age. Similarly, when a standard number of items have been unsuccessfully responded to, it is assumed the remaining items would also have been failed. The supposition is that individuals with increased levels of the trait also have a higher probability for answering

the item correctly. The item characteristic curve provides the precise probability for each level of the trait.

### Initial Data Collection

When the measure is initially administered it is advisable to co-administer comparison scales, this is sometimes referred to as content validity. Just as the initial literature review, this co-administration will uncover constructs associated with the target assessment. This should include existing measures of the target construct as well as constructs roughly associated. In addition, it is important to use a large and appropriately heterogeneous sample for the initial pilot administration. Clark and Watson (1995) recommend 300 respondents at this stage. If the scale is to be used with a clinical population, it is crucial to obtain data on a normative, but appropriately matched, sample.

This pilot stage will allow for additional analysis of item distribution, required before further administration can begin. Two considerations are most important, both concerning the distribution of responses. The first is to eliminate items that have skewed distributions, the second involves keeping items with a broad distribution of responses. Highly unbalanced items convey little information and because of the limited variability correlate too strongly or too weakly with other items. With a more normal distribution a high correlation would suggest redundancy and consideration should be given to deleting one or other item, however, this cannot be trusted in situations with highly skewed distributions and other factors must be considered such as population sampling. Because most constructs are continuous distributions, items should ideally discriminate between degrees not just between presence or absence (Clark & Watson, 1995).

The goal of this chapter is to investigate the psychometric properties of HCAM according to the criteria laid out in the above section. Namely, the parameter distributions, internal consistency in the form of inter-parameter correlations, alpha coefficient and factor analysis. Consistency over time will also be examined. These investigations will be conducted for both normative and clinically referred samples, as recommended.

## 5.2 METHODOLOGY

The families making up this sample were recruited in the same manner as those described in detail previously in chapter three. 92 families participated, volunteers from local primary schools in London and Berkshire. Demographic properties are presented below in Table 5.2.1.

TABLE 5.2.1: DEMOGRAPHIC PROPERTIES OF NORMATIVE SAMPLE (N=92)			
	VARIABLE	N	PERCENT (%)
Family Constel.	Living with both biological parents	22	24
	Living with single biological parent	59	64
	Living with biological parent and parent's partner	10	11
	Living with extended family	1	1
Employment status	Professional employment <sup>1</sup>	45	49
	Skilled labour	22	24
	Unskilled labour	9	10
	Unemployed <sup>2</sup>	13	14
	Missing employment values	3	3
Sex	Boys	54	59
	Girls	38	42
Ethnicity	United Kingdom	65	69
	Other European	10	11
	Black African or Caribbean	5	5
	Asian	14	15
Age	Mean age (years)	-	8.8yrs
	Age range (years)	-	5.6 – 11.10yrs

The families making-up the clinically referred sample, also discussed in detail in chapter three, were recruited from three Child and Family Units in the North London area.<sup>3</sup>

<sup>1</sup> These figures are based on the highest category from adults living with child

<sup>2</sup> These figures include adults in full or part-time education

<sup>3</sup> Hornsey Rise Child and Family Unit, Cannonbury Child and Family Unit and the Anna Freud Centre.

Table 5.2.2 below outlines the exclusion criteria for the sample, while Table 5.2.3 shows the demographic information.

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TABLE 5.2.2: EXCLUSION CRITERIA FOR CLINICAL SAMPLE

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CRITERIA	TOTAL	BOYS	GIRLS
Outside the age range of 5.0 to 11.11	584	339	245
IQ below 70	4	3	1
English spoken without fluency	27	18	9
Diagnosed or suspected of a pervasive developmental or psychotic disorder	9	7	2
Major medical or neurological condition	22	15	7
Family stress, deemed inappropriate <sup>4</sup>	30	12	18
No suitable guardian for child <sup>5</sup>	25	18	7
Approached, but declined to participate	149	95	54

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<sup>4</sup> e.g. family in shelter, Court Order to attend clinic

<sup>5</sup> e.g. recent foster placement

TABLE 5.2.3: DEMOGRAPHIC PROPERTIES OF CLINICAL SAMPLE (N=42)

VARIABLE		N	PERCENT (%)
Family Constel.	Living with both biological parents	19	45
	Living with single biological parent	21	50
	Living with biological parent and parent's partner	2	5
	Child living in other circumstances (e.g. foster care)	0	0
Employment status	Professional employment <sup>6</sup>	4	10
	Skilled labour	6	14
	Unskilled labour	4	10
	Unemployed <sup>7</sup>	1	2
	Missing employment values	27	64
Sex	Boys	27	64
	Girls	15	36
Ethnicity	United Kingdom	23	55
	Other European	5	12
	Black African or Caribbean	8	19
	Asian	6	14
Age	Mean age (years)	-	7.4
	Age range (years)	-	6.5 – 11.17

For both samples the revised HCAM interview was administered to the children's mother as part of a larger battery of measures (see section chapter six). These were audiotaped, transcribed and later coded according to the latest version of the HCAM manual. Interviewing lasted between 1.5 and 2 hours, while coding usually required a further one hour. Interviewing was conducted in the family's home or the research facilities provided by the project, as requested by the family.

### 5.3 RESULTS

While the HCAM scales will naturally distinguish between normal and disturbed development in their more extreme form, they are primarily designed to be sensitive to differing levels of functioning along a continuum. For this reason, it is important that the normal range and the clinically disturbed range of the scale are equally robust

<sup>6</sup> These figures are based on the highest category from adults living with child

<sup>7</sup> These figures include adults in full or part-time education

psychometrically, particularly as children frequently score outside the range expected from their referral status. This issue is especially salient when considering a measure that aims to be sensitive to clinical changes over time. Consequently, to ensure that the greater range and variability offered by combining the clinically referred and normative sample does not inflate the results of the analyses, and the full range of the manual is psychometrically sound, a more conservative approach has been chosen and in addition to the combined sample, the two samples are presented separately.

### 5.3.1 STUDY ONE: PSYCHOMETRIC PROPERTIES OF THE COMBINED SAMPLE

This sample is a combination of the clinically referred (N=42) and normative (N=92) sub-samples, with a total N of 136. Information concerning sample details and recruitment are outlined above.

#### Relationship Between Parameters and Demographic Data

Individual parameter scores were investigated for independence from the sample demographic variables. These are outlined in Tables 5.3.1 and 5.3.2 below.

TABLE 5.3.1: PEARSON CORRELATION COEFFICIENTS  
BETWEEN SEX, AGE, IQ AND PARAMETER SCORES

	SEX	AGE	IQ <sup>8</sup>
Body needs	-0.10	.02	.10
Learning and work	0.26	.18	.11
Play and hobbies	.19	-0.04	.21
Impulse control	.26	-0.10	.20
Relationship Mum	.13	.03	.18
Relationship siblings	.17	-0.23	.17
Relationship peers	.25	-0.05	.20
Relationship adults	.22	-0.06	.18
Confidence, self-esteem	.27	.11	.22
Capacity to cope with stress	.26	.07	.20
Variability of mood	.24	.03	.14
Sexual development	.20	.06	.16
Moral development	.19	-0.11	.17
Global	.32	.05	.18

\*p< .05    \*\*p< .01

<sup>8</sup> As measured by the Wisc III-R UK (Weschler, 1975)



TABLE 5.3.2: ONE-WAY ANALYSIS OF VARIANCE BETWEEN  
HCAM PARAMETERS, EMPLOYMENT AND FAMILY STRUCTURE

	EMPLOYMENT STATUS		FAMILY STRUCTURE	
	F(4, 110)	Sig.	F(3, 110)	Sig.
Body needs	1.25	.30	.92	.43
Learning and work	1.37	2.6	.90	.45
Play and hobbies	1.61	.19	.76	.52
Impulse control	.94	.42	1.74	.17
Relationship Mum	1.38	.26	2.78	.06
Relationship siblings	1.89	1.4	.94	.42
Relationship peers	.63	.60	1.23	.30
Relationship adults	3.0	.04*	.40	.76
Confidence, self-esteem	.50	.68	.84	.47
Capacity to cope with stress	.70	.55	1.89	.14
Variability of mood	.58	.63	1.31	.27
Sexual development	.20	.90	1.13	.34
Moral development	1.3	.28	1.4	.25

Only *Relationship with adults* corresponds significantly ( $p < .04$ ) with the family's employment status. All other HCAM parameters and demographic variables, that is age, gender, IQ and family structure, are independently related.

### Distribution of Parameter Scales

The range and distribution of the individual parameter scores are presented below in Table 5.3.3.

TABLE 5.3.3: DISTRIBUTION OF HCAM PARAMETERS

	MEAN	STD DEV	MIN	MAX
Body needs	80.9	9.7	45	98
Learning and work	79.2	12.1	30	97
Play and hobbies	82.0	9.8	30	96
Impulse control	75.1	15.3	30	95
Relationship Mum	79.9	10.7	35	96
Relationship siblings	78.8	11.7	30	97
Relationship peers	77.7	12.5	30	95
Relationship adults	83.6	6.7	50	96
Confidence, self-esteem	76.6	11.9	35	96
Capacity to cope with stress	74.5	15.7	35	94
Variability of mood	80.0	9.3	45	96
Sexual development	82.8	7.5	35	95
Moral development	78.5	11.8	30	97
Global	78.9	9.1	46	94

Using the full range of the clinically referred and normative sample, the mean scores of individual parameters range between *Capacity to cope with stress* (74.5) and *Relationship with adults* (83.6). These two parameters also demonstrate the minimum and maximum standard deviations, which fall between *Relationship with adults* (6.7) and *Stress* (15.7).

## Internal Consistency

### Parameter Relationships

To investigate the internal consistency of the HCAM parameters, Pearson correlations were conducted between individual parameters.

TABLE 5.3.4: PEARSON CORRELATIONS BETWEEN PARAMETERS<sup>9</sup>

	BN	LW	PL	IM	PRIM	SIB	PE	OA	CON	ST	MO	SD	MD
LW	0.47 <sup>1</sup>												
PL	0.59 <sup>1</sup>	0.65 <sup>1</sup>											
IM	0.66 <sup>1</sup>	0.60 <sup>1</sup>	0.58 <sup>1</sup>										
PRIM	0.59 <sup>1</sup>	0.51 <sup>1</sup>	0.63 <sup>1</sup>	0.79 <sup>1</sup>									
SIB	0.50 <sup>1</sup>	0.51 <sup>1</sup>	0.43 <sup>1</sup>	0.74 <sup>1</sup>	0.54 <sup>1</sup>								
PE	0.50 <sup>1</sup>	0.60 <sup>1</sup>	0.73 <sup>1</sup>	0.66 <sup>1</sup>	0.67 <sup>1</sup>	0.50 <sup>1</sup>							
OA	0.33 <sup>1</sup>	0.35 <sup>1</sup>	0.46 <sup>1</sup>	0.54 <sup>1</sup>	0.49 <sup>1</sup>	0.35 <sup>1</sup>	0.54 <sup>1</sup>						
CON	0.45 <sup>1</sup>	0.66 <sup>1</sup>	0.47 <sup>1</sup>	0.63 <sup>1</sup>	0.58 <sup>1</sup>	0.48 <sup>1</sup>	0.57 <sup>1</sup>	0.24 <sup>1</sup>					
ST	0.61 <sup>1</sup>	0.61 <sup>1</sup>	0.53 <sup>1</sup>	0.79 <sup>1</sup>	0.72 <sup>1</sup>	0.51 <sup>1</sup>	0.63 <sup>1</sup>	0.36 <sup>1</sup>	0.77 <sup>1</sup>				
MO	0.47 <sup>1</sup>	0.45 <sup>1</sup>	0.50 <sup>1</sup>	0.72 <sup>1</sup>	0.66 <sup>1</sup>	0.58 <sup>1</sup>	0.62 <sup>1</sup>	0.45 <sup>1</sup>	0.59 <sup>1</sup>	0.70 <sup>1</sup>			
SD	0.48 <sup>1</sup>	0.51 <sup>1</sup>	0.58 <sup>1</sup>	0.56 <sup>1</sup>	0.49 <sup>1</sup>	0.33 <sup>1</sup>	0.55 <sup>1</sup>	0.33 <sup>1</sup>	0.41 <sup>1</sup>	0.50 <sup>1</sup>	0.44 <sup>1</sup>		
MD	0.66 <sup>1</sup>	0.56 <sup>1</sup>	0.58 <sup>1</sup>	0.89 <sup>1</sup>	0.77 <sup>1</sup>	0.72 <sup>1</sup>	0.66 <sup>1</sup>	0.56 <sup>1</sup>	0.60 <sup>1</sup>	0.74 <sup>1</sup>	0.74 <sup>1</sup>	0.51 <sup>1</sup>	
GLB	0.73 <sup>1</sup>	0.75 <sup>1</sup>	0.73 <sup>1</sup>	0.92 <sup>1</sup>	0.84 <sup>1</sup>	0.72 <sup>1</sup>	0.81 <sup>1</sup>	0.57 <sup>1</sup>	0.76 <sup>1</sup>	0.88 <sup>1</sup>	0.79 <sup>1</sup>	0.63 <sup>1</sup>	0.89 <sup>1</sup>

<sup>1</sup>p<.001

All relationships between parameters are significant at the  $p < 0.001$  level, although the coefficient ranges are more varied. As expected, the *Global score parameter* most related to each individual parameter, ranging from *Relationship with adults* (.57) to *Impulse control* (.92). *Relationship with adults* corresponds most weakly with the other parameters, having six relationships at the .4 or lower coefficient. Aside from the *Global scores*, *Moral development* corresponds most strongly, having six relationships at the .7 coefficient or higher (*Global score* has 11).

<sup>9</sup> Bn: body needs; Lw: learning & work; Con: Confidence; Im: impulse control; Prim: relationship with primary caregiver; Pe: relationship with peers; Sib: relationship with siblings; Oa: relationship with other adults; Mo: variability of mood; Sd: sexual development; Md: moral development; St: capacity to cope with stress; Glb: global score; Pl: play & hobbies

### *Cronbach's Alpha*

To investigate further the internal consistency of the combined sample, Cronbach's alpha was calculated. With a total coefficient of .94, Table 5.3.5 below shows the change in coefficient if any of the individual parameters are deleted.

TABLE 5.3.5: CRONBACH'S ALPHA  
WHEN INDIVIDUAL SCALES ARE DELETED

	$\alpha$ if item deleted
Body needs	.94
Learning and work	.94
Play and hobbies	.94
Impulse control	.93
Relationship Mum	.93
Relationship siblings	.94
Relationship peers	.94
Relationship adults	.94
Confidence, self-esteem	.94
Capacity to cope with stress	.93
Variability of mood	.94
Sexual development	.94
Moral development	.93

In addition to the high total alpha coefficient, deleting any of the individual parameters would not significantly alter the result.

### *Principal Components Analysis*

For a final test of internal consistency, a principal components analysis, with a varimax rotation, was performed using the individual HCAM parameters.

TABLE 5.3.6: ROTATED (VARIMAX) FACTOR LOADINGS  
ABOVE .5 OF HCAM PARAMETERS

	FACTOR 1	FACTOR 2
Impulse control	.86	
Moral development	.85	
Relationship siblings	.78	
Relationship Mum	.68	.52
Variability of mood	.68	
Capacity to cope with stress	.65	.61
Body needs	.60	
Relationship adults	.55	
Play and hobbies		.86
Learning and work		.78
Relationship peers		.74
Sexual development		.73
Confidence, self-esteem		.64
Eigen	7.85	1.0
% accounted	60.4	7.9
Alpha coefficient	.92	.87

The principal components analysis offers two factors. However, although accounting for almost 8% of the variance in the data, the eigen value of the second factor is a small 1.0. The first factor, with an eigen value of almost 7.9 and accounting for over 60% of the variance in the data, far outweighs any other factor loadings.

### Discussion

This study presented the psychometric properties of the HCAM with a combined, clinically referred and normative, sample. The relationship between demographic details and HCAM parameters was investigated, concluding that only *Relationship with adults* is significantly associated with the family's employment status; all other variables and parameters are independently related. The score distributions show an appropriate range, with *Relationship with adults* and *Capacity to cope with stress* having the smallest and largest ranges and standard deviations respectively. Pearson correlations between parameters showed highly significant relationships, particularly in relation to the *Global score*. Cronbach's alpha coefficient confirms a strong homogeneity between parameters. A

principal components analysis offers two factors, although the second accounts for only 8% of the data, the first accounts for 60%.

The development of any measure must consider the contexts in which the measure will be utilised (Boyle et al., 1996; Foster & Cone, 1995; Cantwell, 1988). The HCAM aims to assess global functioning by tapping into different aspects of that single construct; reflected in the parameter domains. Consequently, while each of the individual parameters is a distinct and individual aspect of the child's behaviour, there is a trait underlying each of them. To demonstrate this most thoroughly, Clark and Watson (1995) recommend the examination of score distribution, inter-item correlation and factor groupings alongside the more usual tests of homogeneity, a strategy which has been adopted throughout this chapter.

While parameter distributions dip slightly further into the more severe end of the 100-point scale than in the previous chapter, the sample remains restricted by the exclusion of an in-patient group. Within these constraints, the full breadth of the scale is being used, with relatively consistent mean and standard deviations across parameters. *Relationship with adults* is the possible exception to this, with the most limited range and smallest standard deviation.

The high alpha coefficient demonstrates high homogeneity between parameters. Pearson correlations between individual HCAM parameters reflect this structure, while continuing to demonstrate differing relationships between pairs as seen in previous studies. For example, *Responsibility for body needs* and *Relationship with adults* remain less related than *Capacity to cope with stress* and *Confidence and self-esteem*. *Impulse control* remains the most strongly correlated parameter to the *Global score*, while *Relationship with adults* remains the least. This finding is consistent with previous chapter results. By remaining sensitive towards the qualitative characteristics underlying the target behaviour and the child's presenting style of adaptation, as well as level of impairment, the HCAM offers a more versatile tool than previously available.

The principal components analysis loaded onto two factors with an eigen value of 1.0 or above. However, while loadings of .5 or above are relatively discrete, the second factor

accounts for only 8% of the variance in data; supporting the homogeneity of the internal structure of ratings.

### *Conclusion*

While this study demonstrates the HCAM manual to be mostly psychometrically sound, there are two areas with which it is more difficult to be confident. The first is the parameter *Relationship with adults* which, in addition to showing the least range and standard deviation, is also slightly dependently related to the family's employment status, and least related, of all the parameters, to the *Global score*. Taken individually, these weaknesses may not be overly worrying, however, collectively they suggest the need for caution concerning the validity of this individual parameter. The second is the possibility that combining the clinical and normative sample may obscure psychometric weakness; this is addressed in the remainder of this chapter by separating these groups.

### 5.3.2 STUDY TWO: INVESTIGATION OF THE NORMATIVE SAMPLE

The recruitment and sample details of the normative sample are discussed above in section 5.2. The total N size was 92.

### Distribution of Parameter Scales

The first stage of this study looked at the distribution of individual parameters for those children recruited from mainstream local primary schools in the North London area. These are shown below in Table 5.3.7.

TABLE 5.3.7: DISTRIBUTION OF HCAM PARAMETERS

	MEAN	STD DEV	MIN	MAX
Body needs	84.1	6.4	64	96
Learning and work	83.9	6.2	50	95
Play and hobbies	85.3	5.1	64	96
Impulse control	82.2	7.4	58	95
Relationship Mum	84.1	6.5	55	95
Relationship sibs	82.6	8.4	45	95
Relationship peers	82.7	7.0	60	95
Relationship adults	85.1	4.5	65	96
Confidence, self-esteem	81.8	6.4	60	92
Capacity to cope with stress	82.5	6.6	60	94
Variability of mood	83.5	5.5	65	92
Sexual development	85.0	4.3	64	95
Moral development	83.6	6.2	62	95
Global	83.4	4.0	70	91

These scores show the small standard deviations and similar means reflected in the sampling limitations of a normative sample. As expected, while some children will demonstrate disturbances in the clinical ranges of the scales, the majority of the children score above the 70 clinical/normative cut-off point, particularly between 80 and 85, affecting the means accordingly.

### Relationship Between Parameters and Demographic Data

The next stage of this investigation was to ensure that the HCAM scores were



independent of age, sex, IQ, family structure and employment status. Tables 5.3.8 and 5.3.9 outline these results.

TABLE 5.3.8: PEARSON CORRELATION COEFFICIENTS  
BETWEEN SEX, AGE, IQ AND PARAMETER SCORES

	SEX	AGE	IQ <sup>10</sup>
Body needs	-0.09	0.42**	.21
Learning and work	0.12	0.09	.13
Play and hobbies	0.09	0.27*	.15
Impulse control	0.01	0.08	.17
Relationship Mum	0.06	0.03	.22
Relationship siblings	-0.05	-0.07	.09
Relationship peers	0.09	0.14	.17
Relationship adults	0.20	0.24*	.11
Confidence, self-esteem	-0.04	0.01	.22
Capacity to cope with stress	0.03	0.03	.18
Variability of mood	-0.01	0.02	.16
Sexual development	-0.02	-0.13	.11
Moral development	0.20	0.16	.17
Global	0.06	0.15	.17

\*p< .05\*\*p<.01

<sup>10</sup> As measured by the Wisc III-R UK (Weschler, 1975)

TABLE 5.3.9: ONE-WAY ANALYSIS OF VARIANCE BETWEEN  
HCAM PARAMETERS, EMPLOYMENT AND FAMILY STRUCTURE

	EMPLOYMENT STATUS		FAMILY STRUCTURE	
	F(4, 84)	Sig.	F(3, 84)	Sig.
Body needs	0.92	0.44	0.71	0.55
Learning and work	0.74	0.53	0.13	0.94
Play and hobbies	0.97	0.41	0.35	0.79
Impulse control	1.12	0.35	1.58	0.20
Relationship Mum	1.39	0.25	2.63	0.06
Relationship siblings	1.20	0.32	0.45	0.72
Relationship peers	0.10	0.96	0.46	0.71
Relationship adults	1.34	0.27	0.59	0.62
Confidence, self-esteem	0.98	0.41	1.00	0.40
Capacity to cope with stress	0.06	0.98	2.36	0.08
Variability of mood	0.69	0.56	0.36	0.78
Sexual development	0.98	0.41	1.77	0.16
Moral development	0.75	0.53	1.2	0.26

Both of these tables show no relationship between HCAM scores, sex, family structure or employment status. Age does however show a .42 coefficient ( $p < .001$ ) with *Responsibility for body needs*, a .24 ( $p < .05$ ) relationship with *Play & hobbies* and .27 ( $p < .05$ ) coefficient with *Relationship with adults outside the family*.

#### Internal Consistency

Internal consistency was investigated firstly by analysing the relationship between individual parameters, the coefficient of Cronbach's alpha and finally by a principal components analysis.

### Relationship Between Parameters

Pearson correlations were conducted between parameter scales. These are shown in Table 5.3.10.

TABLE 5.3.10: PEARSON CORRELATIONS BETWEEN PARAMETERS<sup>11</sup>

	BN	LW	PL	IM	PRIM	SIB	PE	OA	CON	ST	MO	SD	MD
LW	0.31***												
PL	0.44***	0.39***											
IM	0.36***	0.17	0.33***										
PRIM	0.24**	0.20	0.46***	0.70***									
SIB	0.28**	0.32**	0.29**	0.61***	0.40***								
PE	0.33***	0.36***	0.48***	0.37***	0.45***	0.36***							
OA	0.19*	0.28**	0.41***	0.18	0.16	0.14	0.37***						
CON	0.37***	0.24*	0.24*	0.48***	0.428**	0.38***	0.38***	0.05					
ST	0.30*	0.19	0.39***	0.46***	0.40***	0.25*	0.30***	0.03	0.35***				
MO	0.31***	0.19*	0.24*	0.61***	0.45***	0.48***	0.26	0.03	0.50***	0.56***			
SD	0.13	0.15	0.13	0.31***	0.33***	0.27*	0.26	0.06	0.35***	0.24**	0.36***		
MD	0.33***	0.21*	0.31***	0.68***	0.59***	0.51***	0.31***	0.11	0.52***	0.41***	0.65***	0.37***	
GLB	0.57***	0.50***	0.62***	0.77***	0.70***	0.70***	0.66***	0.35***	0.64***	0.62***	0.70***	0.44***	0.73***

\*P<.05

\*\*p<.01

\*\*\*p<.001

As would be expected, the most highly correlated parameter remains the *Global score*, ranging between *Relationship with adults* (.35) and *Impulse control* (.77). In addition to *Relationship with adults*, only *Sexual development* (.44) correlates at less than a .5 level with the *Global score* parameter. *Relationship with adults* correlates weakly with most parameters (.03 *Variability of mood and Capacity to cope with stress* parameter, to .41 *Play & hobbies*), while *Confidence and self-esteem* and *Relationship with Mum* correlate most strongly.

### Cronbach's Alpha

Internal consistency was further explored by performing Cronbach's alpha, which

<sup>11</sup> Bn: body needs; Lw: learning & work; Con: Confidence; Im: impulse control; Prim: relationship with primary caregiver; Sec: relationship with secondary caregiver; Pe: relationship with peers; Sib: relationship with siblings; Oa: relationship with other adults; Mo: variability of mood; Sd: sexual development; Md: moral development; St: capacity to cope with stress; Glb: global score; Pl: play & hobbies

showed a total internal consistency of .85. Table 5.3.11 outlines changes in alpha coefficients if individual items are deleted.

---

TABLE 5.3.11: CRONBACH 'S ALPHA  
WHEN INDIVIDUAL SCALES ARE DELETED

---

	$\alpha$ if item deleted
Body needs	.84
Learning and work	.84
Play and hobbies	.84
Impulse control	.83
Relationship Mum	.83
Relationship siblings	.83
Relationship peers	.83
Relationship adults	.85
Confidence, self-esteem	.84
Capacity to cope with stress	.84
Variability of mood	.83
Sexual development	.84
Moral development	.84

---

#### *Principal Components Analysis*

A principal components analysis (varimax rotation) was calculated, accounting for 58.2% of the variance in the data by loading the HCAM parameters onto three factors.

Cronbach's alphas were then calculated between the variables for each of the factors. These results are outlined in Table 5.3.12 below.

TABLE 5.3.12: ROTATED (VARIMAX)  
FACTOR LOADINGS ABOVE .5 OF HCAM PARAMETERS

	FACTOR 1	FACTOR 2	FACTOR 3
Impulse control	.86		
Relationship Mum	.82		
Moral development	.73		
Relationship siblings	.59		
Capacity to cope with stress	.58		
Relationship adults		.73	
Learning and work		.72	
Play and hobbies		.72	
Relationship peers		.67	
Sexual development			.74
Variability of mood	.54		.63
Body needs			.55
Confidence, self-esteem			.50
Eigen	4.98	2.05	1.12
% accounted	35.6	14.6	8.0
Alpha coefficient	.83	.72	.67

Although the *Mood parameter* loads slightly on the first (.54) factor and more strongly (.63) onto the third, all the other parameters load discretely. Because of the parameter loadings, the factors have been labelled the following: 1) Containing parameters; 2) Managing parameters; 3) Self-image parameters.

### Discussion

This second study examines the same psychometric properties as the previous, focusing exclusively on a non-referred group of children. Due to the limitations of the sample, score distributions are more limited than previously, reflecting the 70clinical/normative cut-off point, while standard deviations are more restricted. Investigating the relationship with demographic variables shows three parameters to be related to age; *Responsibility for body needs*, *Capacity for play and hobbies* and *Relationship with adults*, although other variables and parameters remain independent. Correlations between parameters maintain the *Global score* as most highly related to all parameters. These are, however, less strongly correlated on the whole than in the previous study, as is the marginally lower alpha coefficient, reflecting the greater limitations in score range (Kline, 1993). A

principal components analysis shows three discrete factors: Containing, Managing and Self-image parameters.

While many of these results mirror the previous study, focusing specifically on the normative sample does highlight some distinct differences. The first of these is the dependence with age of three parameters; *Responsibility for body needs*, *Play & hobbies* and *Relationship with adults*. The second is the different Pearson correlations between parameter pairs. Two characteristics endure, namely, the different correlational strength between pairs, reflecting the greater relationship between some parameters than with others, while the *Global score* remains the most strongly related parameter. However, while the same pair of parameters continue to be more strongly related than others, the relationships are more extreme.

The last area in which focusing solely on the normative sample highlights differences, is in the principal components analysis. The combined samples essentially shows one factor, while separating the normative group out shows three: Containing parameters; Managing parameters and Self-image parameters. The containing parameters refer to those areas that would support the child's affect regulation and behavioural management. The managing parameters refer to the child's skills, either in relationships or in school and play. The third factor, self-image parameters, refers to the child's image of themselves, their confidence and resulting mood. Once again, these discrete and meaningful groupings seen in the normative sample may be diluted when the sample includes referred children, explaining the more general, single factor seen in the previous study.

### *Conclusion*

Focusing exclusively on a normative sample brings to prominence particular characteristics of the HCAM manual. Weaknesses centre predominantly around *Responsibility for body needs*, *Capacity for play and hobbies* and *Relationship with adults* showing dependent relationships with the child's age. As these parameters are also the least variable in range, even within the context of the limited sample, it is possible this is the result of the small variance in scores between children (Kline, 1993), however, confirming this would require further investigation. *Relationship with adults*, in particular,

also continues to show a relatively small distribution of scores and in the context of the previous studies where this parameter also showed difficulties, should remain an area of concern.

In other areas of this study, in particular being sensitive to the different experiences of children with varying degrees of impairment, the HCAM has maintained sound psychometric properties. The next study continues this investigation by focusing exclusively on a clinically referred group of children.

### 5.3.3 STUDY THREE: INVESTIGATION OF A CLINICALLY REFERRED SAMPLE

The recruitment and administration of a clinically referred sample is discussed above in section 5.2. The total N for this sample was 42.

#### Distribution of Parameter Scales

Parameter distribution is outlined below in Table 5.3.13.

TABLE 5.3.13: DISTRIBUTION OF HCAM PARAMETERS

	MEAN	STD DEV	MIN	MAX
Body needs	72.4	11.8	45	94
Learning and work	67.1	15.2	30	98
Play and hobbies	73.8	13.6	30	95
Impulse control	57.4	15.7	30	85
Relationship mum	69.3	11.9	35	91
Relationship sibs	69.6	13.4	30	88
Relationship peers	65.3	14.9	30	92
Relationship adults	79.7	9.7	50	96
Confidence, self-esteem	63.5	12.5	35	82
Capacity to cope with stress	53.6	13.0	35	86
Variability of mood	71.1	10.9	45	85
Sexual development	76.5	10.3	35	92
Moral development	65.8	12.8	30	90
Global	67.3	7.8	46	82

The range of scores for each parameter show greater range than in the previous study, particularly in relation to the means and standard deviations. This greater spread of rating reflects the children in the sample who may score severely on one or a group of parameters, but may equally score relatively well on one or more of the others.

### Relationship Between Parameters and Demographic Data

Tables 5.3.14 and 5.3.15 below show the relationship between demographic variables and HCAM scores.

TABLE 5.3.14: PEARSON CORRELATION COEFFICIENTS  
BETWEEN SEX, AGE, IQ WITH PARAMETER SCORES

	SEX	AGE	IQ <sup>12</sup>
Body needs	-.10	.04	.20
Learning and work	.26	.40*	.19
Play and hobbies	.19	.03	.15
Impulse control	.26	-.02	.14
Relationship Mum	.13	.01	.12
Relationship siblings	.17	-.08	.10
Relationship peers	.25	.10	.11
Relationship adults	.22	.06	.11
Confidence, self-esteem	.27	.14	.13
Capacity to cope with stress	.26	.08	.15
Variability of mood	.24	-.16	.14
Sexual development	.20	.09	.18
Moral development	.19	.02	.18
Global	.32	.12	.10

\*p < .05

<sup>12</sup> As measured by the Wisc III-R UK (Weschler, 1975)



TABLE 5.3.15: ONE-WAY ANALYSIS OF VARIANCE BETWEEN  
HCAM PARAMETERS, EMPLOYMENT AND FAMILY STRUCTURE

	EMPLOYMENT STATUS		FAMILY STRUCTURE	
	F(4, 84)	Sig.	F(3, 30)	Sig.
Body needs	1.03	.40	.29	.75
Learning and work	1.66	.21	.42	.66
Play and hobbies	.89	.47	.64	.53
Impulse control	1.08	.38	.35	.71
Relationship Mum	1.57	.23	.09	.91
Relationship siblings	.73	.55	.51	.65
Relationship peers	.83	.49	1.17	.32
Relationship adults	1.57	.23	.97	.39
Confidence, self-esteem	.31	.81	2.55	.10
Capacity to cope with stress	.43	.73	.35	.71
Variability of mood	.64	.60	1.05	.36
Sexual development	.17	.91	.21	.81
Moral development	2.0	.15	.54	.59

Except for the *Capacity and motivation for learning* parameter and age, all the other parameters on the variables sex, age, IQ, family structure and employment status are independent of HCAM scores.

### Internal Consistency

Internal consistency was investigated with the same steps as with the normative sample; correlations between parameters, Cronbach's alpha coefficient and a principal

components analysis. These are outlined below.

### *Relationship Between Parameters*

TABLE 5.3.16: PEARSON CORRELATIONS BETWEEN PARAMETERS<sup>13</sup>

	BN	LW	PL	IM	PRIM	SIB	PE	OA	CON	ST	MO	SD	MD
LW	.16												
PL	.44*	.49**											
IM	.54**	.32	.33										
PRIM	.53**	.19	.46**	.46**									
SIB	.34	.30	.13	.65**	.26								
PE	.20	.35*	.67**	.37*	.48**	.17							
OA	.17	.12	.30	.60**	.52**	.27	.48**						
CON	-.05	.49**	.13	.08	.14	.06	.15	-.027					
ST	.44*	.25	.13	.49**	.53**	.12	.26	.22	.54**				
MO	.17	.08	.29	.43**	.45**	.34	.47*	.49**	.15	.36*			
SD	.37*	.39*	.55**	.34	.23	-.3	.38*	.27	-0.06	.09	.08		
MD	.57**	.26	.37*	.83**	.62**	.67**	.46**	.71**	.07	.41*	.51**	.20	
GLB	.60**	.56**	.61**	.81**	.74**	.56**	.66**	.61**	.34*	.64**	.61**	.43*	.82**

\*p<.05

\*\*p<.01

As before, the *Global parameter* is the most highly correlated (.82 : *Moral development* to .34 : *Confidence and self-esteem*). In comparison to the previous normative group, there is greater variance in the relationships between parameters. This is discussed in further detail in the discussion below.

<sup>13</sup> Bn: body needs; Lw: learning & work; Con: Confidence; Im: impulse control; Prim: relationship with primary caregiver; Sec: relationship with secondary caregiver; Pe: relationship with peers; Sib: relationship with siblings; Oa: relationship with other adults; Mo: variability of mood; Sd: sexual development; Md: moral development; St: capacity to cope with stress; Glb: global score; Pl: play & hobbies

*Cronbach's Alpha Coefficient*

Cronbach's alpha over the total scales was .86. Table 5.3.17 below shows the small changes that would occur if individual parameters were deleted.

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TABLE 5.3.17: CRONBACH'S ALPHA  
WHEN INDIVIDUAL SCALES ARE DELETED

---

	$\alpha$ if item deleted
Body needs	.86
Learning and work	.86
Play and hobbies	.85
Impulse control	.84
Relationship mum	.84
Relationship siblings	.83
Relationship peers	.85
Relationship adults	.85
Confidence, self-esteem	.86
Capacity to cope with stress	.84
Variability of mood	.85
Sexual development	.86
Moral development	.84

---

As with the analyses with the combined and normative samples, deleting individual parameters would not alter the strong internal consistency shown by the alpha coefficient.

### *Principal Components Analysis*

Using the same varimax rotation, a principal components analysis was investigated for the HCAM parameters.

TABLE 5.3.18: ROTATED (VARIMAX)  
FACTOR LOADINGS ABOVE .5 OF HCAM PARAMETERS

	FACTOR 1	FACTOR 2	FACTOR 3
Moral development	.91		
Impulse control	.89		
Relationship siblings	.65		
Relationship Mum	.64		
Relationship adults	.64		
Body needs	.60		
Relationship peers		.82	
Play and hobbies		.81	
Sexual development		.81	
Confidence			.90
Capacity to cope with stress			.69
Learning and work			.64
Eigen	5.04	2.09	1.55
% accounted	38.76	16.10	11.94
Alpha coefficient	.85	.77	.70

Three discrete factors emerged from the HCAM parameters, accounting for a total of 66.8% of the variance in the data. Grouping of parameters suggests labelling of these factors as follows: 1) Compliance parameters 2) Competence parameters 3) Vulnerability parameters. These are discussed in further detail below.

### Discussion

This study continued the investigation of the HCAM psychometric properties, focusing exclusively on a clinically referred group of children. While score distributions are similar to the mixed group investigated in study one, the means and standard deviations are notably different, reflecting the differences in population. Examining the relationship between demographic details and HCAM parameters, only *Learning and work* showed a significant relationship with age, while all other parameters and variables remain independent. Cronbach's alpha remained high, as in the previous study, while between parameter correlations were similar to those seen in study two. The principal

components analysis also showed three factor loadings, as in study two, although the parameter groupings were somewhat different.

Investigating the group of clinically referred children separately from the combined group emphasised particular characteristics of the psychometric properties of the HCAM in a similar way that the normative sample did in study two. In particular, a different parameter, *Learning and work* in this case, was shown to be associated with age, although again, all other demographic variables and parameters remained independent. Equally, while the correlation coefficients between parameters showed a general trend to be weaker than in the combined sample, there remained the same difference between strengths of parameter pairs. Also, as in study two, these differences between parameter pairs were more polarised into weak or strong, than seen with the combined sample in study one.

The predominant difference this study uncovered was the contrast in the factor groupings of the principal components analysis. While the combined sample in study two was too diffuse to differentiate into strong factor loadings, focusing solely on the non-referred group of children produced three discrete groups (Containing, Managing and Self-image parameters). Investigating the referred group of children exclusively also produced three factors, although the grouping of parameters was somewhat different; namely, Compliance, Competence and Vulnerability parameters. This suggests that different parameters may be relevant, individually or in combination, for different groups of children. In particular this may mean that the same aspects of functioning for a disturbed child contain qualitatively different challenges and experiences than for a non-disturbed child. For example, *Sexual development* in the principal components analysis of the normative sample is grouped with *Responsibility for body needs* and *Confidence and self-esteem*, suggesting internal, private experiences, but with *Play & hobbies* and *Relationship with peers* in the clinical sample, suggesting experiences that interfere with the outside environment.

The importance of capturing these differences was discussed in chapter two, referring to the criticism of some researchers towards dimensional approaches, in particular, their assumption that dimensions share the same qualitative characteristics at each end of a

continuum. An example of this is the evidence suggesting that mental handicap is qualitatively different from normal intelligence (Yule & Rutter, 1987; Rutter & Tuma, 1988).

### *Conclusion*

These three studies taken together have investigated the psychometric properties of the HCAM with a normative, referred and combined sample. Separating the analysis in this way allowed a strong test of the robustness of the psychometric properties of this measure: whether they would be found in separate samples differing according to referral status. What emerged was the relationship between certain parameters and age when the sample was separated, although not when combined, changes to the strength of correlation between parameter pairs and differences in factor loadings, suggesting qualitatively somewhat different relationships between domains in children with different referral status.

#### 5.3.4 STUDY FOUR: INVESTIGATION OF STABILITY OVER TIME (NORMATIVE SAMPLE)

This study investigated the stability of the HCAM over three year follow-up administrations. This quality is important for an assessment measure that hopes to capture changes over time due to long-term clinical intervention. Understanding these changes must begin with mapping maturational changes in a non-referred group of children. Without understanding the natural changes in children due to development, separating these from changes due to therapy cannot be established.

Using the three year follow-up with the non-referred sample, stability over time was investigated over two time spans. The first was a test-retest sub-sample with a time lag of one to two months between first and second administration. The second was a one and two year longitudinal follow-up.

#### 5.3.4.1 Test-Retest Sub-sample

Of the four schools participating in the study, two agreed to send out a further letter to families, inviting them to participate in a test-retest investigation. Of the 38 families available for involvement, 17 agreed to participate. Table 5.3.19 below outlines the demographic details.

TABLE 5.3.19: DEMOGRAPHIC PROPERTIES  
OF TEST RE-TEST SAMPLE (N=17)

	N	% PERCENT
Boys	6	35.3
Girls	11	64.7
Mean age (years)	-	7.9yrs
Age range (years)	-	5.9 – 10.8yrs

Each interview was conducted between one and two months after the original administration with a different member of the research team. The time span was designed to allow for a fresh approach to the interview, while limiting the changes due to natural developmental maturation or changes in circumstance.

The first and second interviews were administered by different interviewers and rated randomly by the same group of four raters discussed in chapter three. However, the assignment of rater to script was conducted randomly in both cases. As a result, Pearson correlations between time one and time two on HCAM parameters are shown alongside

the correlations attenuated for level of inter-rater reliability as suggested by Kline (1993). These are shown below in table 5.3.20

TABLE 5.3.20: PEARSON CORRELATIONS FROM  
TEST-RETEST RELIABILITY (N=17)

	Obtained Coefficient	Attenuated Coefficient
Responsibility for own body needs	.65**	.61
Learning and work	.76**	.82
Play and hobbies	.39	.42
Confidence and self-esteem	.38	.41
Impulse control	.78**	.80
Relationship with Mum	.92**	.96
Relationship with peers	.60**	.61
Relationship with siblings	.90**	.96
Relationship with adults	.41	.52
Level and stability of mood	.38	.41
Capacity to cope with stress	.50*	.51
Moral development	.43	.42
Sexual development	.71**	.65
Global	.73**	.75

\*p<.05

\*\*p<.01

These correlations show moderate to excellent coefficients. Those with the highest correlations in the normative sample were *Relationship with Mum* (.96) and *Relationship with siblings* (.96), the parameter with the weakest was *Level and stability of mood* (.41).

#### 5.3.4.2 Longitudinal Study

All families from the normative sample were invited to continue their participation in the study for three years. Of those that agreed, administration was conducted between 12 and 15 months from the previous administration. This period allows two examples of stability over a 12-month period and one example of stability over a 24-month period.



### Longitudinal Studies

Stability over time was investigated by calculating Pearson correlations between HCAM ratings at time one with HCAM ratings at time two. As before, these correlations have also been corrected, controlling for variance in inter-rater reliability. These are presented below in Table 5.3.22

TABLE 5.3.22: PEARSON CORRELATIONS  
BETWEEN HCAM PARAMETERS LONGITUDINALLY

HCAM PARAMETER	PEARSON CORRELATION					
	12M (N=49)	ATTEN- UATED	12M (N=24)	ATTEN- UATED	24M (N=22)	ATTEN- UATED
Responsibility for body needs	.43**	0.40	.30	0.28	.50*	0.47
Learning and work	.34*	0.37	.72**	0.77	.28	0.30
Play and hobbies	.22	0.24	.44*	0.47	.34	0.37
Impulse control	.36*	0.39	.52**	0.56	.26	0.28
Relationship with Mum	.43**	0.44	.71**	0.72	.77**	0.79
Relationship with siblings	.35*	0.37	.78*	0.82	.15	0.16
Relationship with peers	.42**	0.43	.02	0.02	.05	0.05
Relationships with other adults	.18	0.19	.16	0.17	.48*	0.51
Confidence and self-esteem	.26	0.33	.26	0.33	.30	0.38
Capacity to cope with stress	.25	0.27	.11	0.12	.44*	0.47
Level and stability of mood	.50**	0.51	.09	0.09	.36	0.36
Sexual development	.34*	0.34	.35	0.35	.17	0.17
Moral development	.41**	0.38	.42*	0.39	.29	0.27
Global score	.57**	0.59	.53**	0.55	.47*	0.48

### Study 1 (12 Months)

These figures show moderate to poor correlations across time. The most strongly correlated individual parameter is *Level and stability of mood*, which shows a correlation coefficient of .51\*\*, while *Responsibility for body needs* (.40), *Relationship with peers* (.43), and

*Relationship with Mum* (.44) show .4 or higher correlations. The lowest correlation is with *Relationship with adults*, showing a coefficient of .19. Most importantly, is the high correlation for the *Global score* of .59.

### *Study 2 (12 Months)*

These figures show a full range of poor to highly significant correlations. For example, while *Relationship with siblings* (.82) and *Relationship with Mum* (.72) are both highly correlated over time, *Relationship with peers* (.02) and *Level and stability of mood* (.09) show poor stability. The *Global score* remains stable with a coefficient of .55.

### *Study 3 (24 Months)*

Examining stability over two years shows *Relationship with Mum* (.79) is the most highly stable over time while *Responsibility for body needs* (.47), *Relationships with adults* (.51) and *Capacity to cope with stress* (.47) show moderate correlation coefficients. *Sexual development* (.17) and *Relationship with peers* (.05) show the least stability over the two years. As previously, the *Global score* remains stable with a coefficient of .47.

### Stability of Risk Rating

Consistency over time was also investigated by examining the stability of children's risk bands from first to second year. Using the global score as an indication of risk, scores were banded into five point ranges (20 throughout the 100 point scale), the higher the banding, the higher the child's overall adaptation and consequently, the lower the risk. Table 5.3.23 below outlines the movement between groups from Time 1 and 2, Table 5.3.24 for Time 2 and 3 and Table 5.3.25 for Time 1 and 3.

TABLE 5.3.23: STABILITY OF RISK BANDS OVER 12 MONTHS: TIME 1 AND 2						
RISK BANDS	FOUR	FIVE	SIX	SEVEN	EIGHT	TOTAL
FIVE		3	2			5
SIX		5	11	2		18
SEVEN	1		3	9	1	14
EIGHT				1	4	5
TOTAL	1	8	16	12	5	42

TABLE 5.3.24: STABILITY OF RISK BANDS OVER 12 MONTHS: TIME 2 AND 3

RISK BANDS	FIVE	SIX	SEVEN	EIGHT	TOTAL
FOUR	1				1
FIVE	5	1		1	7
SIX		5	3		8
SEVEN			4	2	6
EIGHT				2	2
TOTAL	6	6	7	5	24

TABLE 5.3.25: STABILITY OF RISK BANDS OVER 24 MONTHS: TIME 1 AND 3

RISK BANDS	FIVE	SIX	SEVEN	EIGHT	TOTAL
FIVE	1	1			2
SIX	3	6		1	10
SEVEN		1	5	1	7
EIGHT				3	3
TOTAL	4	8	5	5	22

These figures show the high stability of children's risk rating as measured between Time 1 and Time 2 (12 months), Time 2 and Time 3 (12 months) and Time 1 and Time 3 (24 months) on the HCAM. In all instances, low movement between risk bands across time is demonstrated.

### Discussion

This study investigated the stability of the HCAM parameters across time. The first example of this was in the form of test-retest stability over three months, which showed moderate to excellent attenuated correlation coefficients. Longitudinal data collected over three years was also presented, allowing for two twelve-month follow-up analysis and one 24-month analysis, showing a more varied range of correlations. An investigation of the stability of risk rating over the same three-year period showed strong consistency over all three years.

The difference in coefficient variability across parameters in the three-month test-retest sample shows moderate to excellent stability. Where there is less consistency in a number of parameters, a number of factors may be artificially deflating the results. The first is the very limited size and range of the sample, which probably weakened correlations in study two and three (Kline, 1993), and this would need to be addressed in

a larger study in the future (discussed further in chapter seven). A second reason may be linked to the nature of the recruitment procedure. While all participants in the study were approached to participate in the test-retest procedure, only a small number agreed. It is possible that this small subset of mothers shared some characteristic that skewed the results. For example, upon reflection, these mothers may have felt that they had under- or over- represented their children's behaviour and wished to redress the balance in the second interview. There is also the possibility that the experiences of speaking about their child's behaviour for a lengthy and extended period of time altered interactions between mother and child, which in turn genuinely altered the child's behaviour, reflected in the results. There is some evidence for this in the spontaneous remarks offered by mothers concerning their reactions towards, and feelings during, the HCAM interviewing experience (see chapter three). Rather than reflecting a lack of stability in the measure, these variations may reflect the powerful experience of the HCAM as a possible clinical tool. Unfortunately, this question can not be answered within the current limitations of this thesis.

Stability over time in the form of the two 12-month and one 24-month follow-up studies showed varying strengths across time and parameters. The majority of parameters remained stable over the first 12 months, while a number of parameters were also stable across three years, for example, *Confidence and self-esteem*, *Play and hobbies*, *Learning and work* and *Responsibility for body needs*. In all three studies *Relationship with Mum* demonstrated increasing consistency across the three years, most likely a reflection of the mother as the informant. Also consistent across the three years was the *Global score*.

A few parameters demonstrate an inconsistent pattern across time. For example, *Capacity to cope with stress* correlates at .27, .12 and .47 across the three studies. These dips may reflect particular, and transient, circumstances in the child's life that would account for a temporary change in functioning, for example, starting secondary school. This supposition may be supported by the consistent stability of the child's *Global score* and risk banding across three years. Although different aspects of functioning may shift in response to environmental circumstances, the overall adaptiveness of the child's behaviour remains stable.

### *Conclusion*

This study examined the stability of HCAM ratings across a three-year longitudinal study. Consistency was demonstrated through the moderate to excellent results of the test-retest study and by the majority of parameters showing stability across one and two years; although some parameters demonstrate a temporary dip in stability at time two.

While this study supports the validity of the HCAM by demonstrating stability over time, there are sample limitations. Within all contexts, the high attrition rate across years necessitates caution as the sample may be skewed or otherwise biased. Within this constraint, the predominate feature is the lack of a clinically referred population. Just as the psychometric properties of the manual were investigated on a combined and split sample earlier in this chapter, future work is required to investigate how a referred group of children may influence these results. Secondly, these analyses are conducted on relatively low sample sizes with a high attrition rate. Increasing sample size would allow a more detailed investigation of the inconsistent patterns seen in a few of the parameters. For example, analysing this data according to age would show if the dip in *Capacity to cope with stress* is, indeed, due to the start of secondary school.

## **5.4 SUMMARY**

### *Relationship Between HCAM Scores and Demographic Variables*

The most important feature of the demographic information available is the minimal number of HCAM parameters that are dependent upon them. In all conditions, combined sample and on the normative or clinical sub-samples, all parameters are independent of the child's sex and family's structure, while employment status is only confounded with *Relationship with adults* in the combined sample. This is particularly important in reference to IQ, predominantly for the parameters associated with learning and verbal ability, such as interpersonal relationships. By being independent of IQ, the HCAM has successfully measured the adaptive or maladaptive processes of these behaviours rather than content and skill acquisition alone.

Independence of rating from age, however, is not as robust. Focusing on the normative sample alone, the parameters *Responsibility for body needs; Play & hobbies* and *Relationship with*

*adults* are all confounded with age. Focusing on the clinically referred sub-sample, two of these factors remain associated with age, *Play & hobbies* and *Relationship with adults*. When the sample is combined however, these effects are lost, and all parameters remain independent of age as they are with the other demographic variables.

### *Distribution of Parameter Scales*

The distributions of the normative and clinically referred sub-samples are appropriately ranged. While the normative group dips into the clinical range, the means and standard deviations portray the sample as grouping around the 70 – 80 decile range, as expected from a non-clinical sample. The clinical group shows the same ranges, but the standard deviations are larger, while the means are lower.

### *Internal Consistency*

In all analyses, the combined sample and both sub-samples, the *Global scores* were most highly correlated to all of the individual parameters. This is an important confirmation of the single construct, functioning, being measured collectively by the individual scales. Contrasts between the referred and normative sample in relation to the *Global scores* show most relationships to be stable. Other relationships also point to the difference between sub-samples, particular in relation to the varying strengths of relationships between parameter pairs.

Notably low correlations include those between *Relationship with Mum* and other parameters. This did not seem to produce a 'halo' effect between parameters, an important confirmation of the measure given the mother as informant during interviewing. In contrast, the high correlations between *Moral development*, the *Global score* and *Impulse control* across samples may either indicate a degree of crossover in the information targeted or simply reflect the importance of these aspects to overall adaptation. This may need to be addressed in the future.

The differences between parameter relationships demonstrate the sensitivity of the HCAM in differentiating beyond health or impairment. The patterns of functioning made by the differing relationships between parameters show the different patterns of development within each group. It also suggests different aspects of functioning are more important to the child's global functioning. In both sub-samples, *Moral development*

and *Impulse control* were most highly correlated with the *Global score* while *Relationship with adults* was relatively low, particularly in the normative population.

The principal components analyses for the three studies show differing factor loadings. While the difference between the normative and referred group are relatively small, they highlight important adaptational differences between these two groups. In the normative group three distinct factors emerged, one related to parameters involved in containing or regulating behaviours, (e.g. *Impulse control* and *Relationship with Mum*), the second with parameters contributing to success outside the home, (e.g. *Relationship with adults outside the family* and *Capacity for learning*), and the third with parameters contributing to self image, (e.g. *Confidence and self-esteem* and *Level and stability of mood*). The referred group also loaded onto three factors, although the groupings related to different skills. The first factor showed parameters that might be associated to forms of compliance, particularly in children with externalising behavioural difficulties. The second factor associates *Sexual development* with *Relationship with peers* and *Capacity for play*. This factor most likely reflects the clinically referred child's experience of sexually inappropriate behaviour and more commonly, their inability to contain their difficulties with emerging sexuality to appropriate situations, and particularly from their peers. The third factor associated *Confidence & self-esteem* with *Capacity to cope with stress* and *Capacity and motivation for learning*. This factor shows the vulnerability of children whose self-esteem and confidence are compromised, where the area of learning is frequently the first to show signs of strain (Cantwell, 1996; Fonagy, 1997; Werry & McClellan, 1992).

The combined sample showed a different picture from the two above situations. Two factors emerged, accounting for 60 and 7.9% of the variance in the data. This small percentage in the second factor, combined with the small eigen value of 1.0, questions the validity of the second factor, suggesting that when the full range of the scale is used with equal frequency, only one general factor emerges; a valid position as the HCAM parameters are designed to measure the same construct.

### *Consistency over Time*

The assessment of consistency over time showed the HCAM to be stable regarding children's level of risk and their global score across three years, as well as moderately to highly stable across parameters for a three month period. The longitudinal investigation

across 12-months also showed moderate to excellent stability across parameters, while there was more variability across the three-year study. More detailed analysis with a larger sample, including referred children, may uncover sample characteristics accounting for this pattern.

### Conclusion

This chapter has investigated the psychometric properties of the Hampstead Child Adaptation Measure. Analyses for a normative and clinically referred group of children were presented as well as corresponding results for the combined samples. Demographic details, when taken as a whole, are independent of age, sex, IQ, family structure and employment status. Pearson correlations between parameters showed expected and appropriate relationships, changing to match the sub-sample discussed. Internal consistency was further proven by the consistently high alpha coefficients regardless of parameters deleted or included. Principal components analyses were the most altered as a result of sample investigated, reflecting the changing patterns of behaviour for healthy and impaired children.

Within the limitations discussed previously from sample restrictions and attrition rate, the HCAM has been proven to be a psychometrically sound measure of functioning in children. However, these analyses do not address the issue of how accurately the manual measures what is expected, nor how sensitive it is to differences in referral status. To investigate this, the HCAM needs to be compared with other, proven, measures of behaviour and functioning. This goal, of assessing the HCAM's concurrent and predictive validity, is investigated in the following chapter.



## INVESTIGATING THE VALIDITY OF THE HCAM

### CHAPTER SUMMARY

The aim of this chapter is to investigate the validity of the Hampstead Child Adaptation Measure (HCAM). Concurrent validity will be assessed using measures of adaptation, symptomatology, mood, and social competence, which are compared with the HCAM's *Global score* and individual parameters. Informant issues are investigated as well as the HCAM's ability to discriminate between normative and clinically referred samples. Lastly, children's future functioning is predicted from previous disparity across HCAM parameters.

### 6.1 INTRODUCTION

Traditionally, the function of psychological tests has been to measure differences between individuals or between the reactions of the same individual under different circumstances (Cantwell & Rutter, 1994). The diagnostic or predictive value of an assessment measure depends on the degree to which it serves as an indicator of the area of behaviour at which it is targeted. It is not necessary that the items of a test resemble the behaviour the test is hoping to predict, only that an empirical correspondence be demonstrated between the two (Anastasi & Urbina, 1997). What is important is the extent to which the measure is standardised to population norms, reliable between raters, stable across time, measures the target behaviour and is able to discriminate between individuals in a sample (Achenbach, 1995c; Cantwell, 1996; Kline, 1993).

It is the goal of this chapter to examine the validity of the HCAM. Validity may be approached from a variety of perspectives. Two types were discussed in detail in the previous chapter investigating the HCAM's psychometric properties; content and structural validity. It is the goal of this chapter to focus on types of validity related to the concurrent relationship with established measures of functioning as well as the predictive and discriminate power of the HCAM manual.

An assessment measure is said to possess concurrent validity if it can be shown to produce the same results as other measures of similar construction administered at the same or future time (Cox, 1994). There are a number of methods for testing this, the

most prevalent method is to examine the extent to which each test correlates with the other. Theoretically, correlations should be as close to 1.0 as possible, demonstrating the two measures parallel, although in practice there is greater variability and debate concerning this issue. In most fields of psychology, correlations beyond .75 are considered acceptable in the majority of situations, however, tests which reach this level of similarity are rare and there are sound reasons for this (Kline, 1993).

One reason is the possibility that a test may be measuring something for which there is no criterion test of acceptable validity; or, because measures that do exist are psychometrically unsound in themselves. In such situations correlations become *part* of the test of validity, and would have to be considered alongside other evidence (Kline, 1993).

A second reason concerns the selection of measures against which the validity may be tested. If correlations did demonstrate the measures to be virtually identical, questions concerning duplication should be raised. New measures are created out of dissatisfaction with the old, and acceptable correlations must reflect a desire for diversity alongside agreed parallels. One example of this is the area of intelligence testing. Two common and established measures of intelligence, the Weschler Scales (Weschler, 1975) and the Stanford-Binet (Terman and Merrill, 1960), have roots to a time when intelligence was conceptualised quite differently than the modern interpretation. Investigators who adopt the most modern and well supported view of intelligence, that is comprising two factors, fluidity and crystallised ability (Cattell, 1979), or Undheim's suggestion (Undheim, 1981), that the ability of fluidity is really the old factor 'g' described by Spearman (1927), would not be satisfied with these tests as validating criteria, nor if they reached overly high correlations.

The question of the ideal correlation coefficient in relation to concurrent validity is very much dependent on the criterion test in question (Kline, 1993). If the validating measure is generally accepted as the benchmark in the field, and there is no theoretical reason for measuring outside that construct, then correlations of .75 or above would be acceptable. However, it is rare for such a situation to arise in most fields of psychology and the acceptable target coefficients may be as little as .3 or .4 in some situations (Anastasi & Urbina, 1997; Kline, 1993).

There are a number of other issues that need to be considered when investigating concurrent validity that may influence the results artificially. The first concerns contaminating the target measure by not ensuring blind data collection and coding (Angold, 1989). This is particularly true when assessing aptitude. For example, a teacher may be more likely to rate a student as achieving highly if she knew the student had scored well on an aptitude test. The second issue concerns inter-rater reliability. Before accurate measurement between tests may be evaluated, variance between coding of raters must be controlled in the analysis so that differences may be accurately established (Anastasi & Urbina, 1997).

These issues become particularly salient when considering the predictive validity of a measure. Predictive validity refers to a test's ability to predict a second, independent, criterion (Anastasi & Urbina, 1997; Cantwell & Rutter, 1994). Returning to the example of intelligence tests, the predictive validity of an intelligence test might be demonstrated by comparing the test scores of a group of children, at age five, with subsequent academic success. This presumes that academic success depends, in part at least, on intelligence, but because intelligence is accepted to be only part of subsequent school achievement, moderate correlations of say, .4, would be reasonably expected (Kline, 1993). In addition to the difficulty that the measure is only predicted in part, there is also the possibility that the relationship between the two measures is not a direct one, but influenced by some third, common, influence (Kendell, 1989; Cantwell & Rutter, 1994; Anastasi & Urbina, 1997). In the example given, this may be social class, parental education or home environment.

Testing for construct validity incorporates many of the issues discussed previously. The term construct refers to the concepts the measure aims to target, and are a number of ways it may be measured. One is a test of predictive and concurrent validity; scores on tests will correlate with scores of similar constructs (Cox, 1994). Equally, constructs that are not targeted, will not correlate. Scores should also accurately discriminate between groups known to be qualitatively different on the target construct (Kline, 1993). In addition, items in the measure will group cohesively, perhaps in a factor analysis, to reflect individual concepts targeted. What these examples have in common is that 'construct validity is established by setting up a number of hypotheses, derived from the

nature of the variable, and putting them to the test' (Kline, 1993; p.26). If all these criteria are met, many issues surrounding validity will also be resolved (Rutter, Tuma & Lann, 1988; Anastasi & Urbina, 1997).

The last type of validity is discrimination, which, for tests designed with a specific purpose in mind, that is the vast majority, is synonymous with utility (Kline, 1993; Berger, 1994). This refers to a test's ability to differentiate between those who score highly on a measure, and those who do not; effectively, the ability of a test to produce a spread of scores. Discriminatory power is related to variance and range of scores, both of which should be at their maximum (Anastasi & Urbina, 1997; Kline, 1993). While a test proven to possess discriminating power must also show evidence of other types of validity, no test will be validated without the ability to discriminate between subjects. In this area rating scales are advantageous above categorical scoring as it has been found that about nine categories are the maximum that can be held in mind by a rater (Vernon, 1961).

Finally, there is a trend in the study of concurrent validity to use sophisticated statistical methods known as meta-analysis. Although first introduced in the 1970s (Glass, 1976; Schmidt & Hunter, 1977), these procedures have become increasingly prevalent in the literature, sometimes substituting for the traditional literature review (Bergin & Garfield, 1994; Durlak & Wells, 1997; Lipsey & Wilson, 1993; Schmidt, 1992). Meta-analyses provide a way of integrating findings from different studies by combing data from past and present research. What is particularly useful about such procedures is that it allows the comparison of data from studies conducted in different places, different methodologies and even from information available in published studies; most usually by the discussion of overall effect sizes.

This chapter aims to investigate the validity of the HCAM manual in relation to the types of validity described in this section; concurrent, construct and predictive. Because of the scope of behaviour addressed by the fourteen parameters, addressing these issues requires comparison with a number of different types and styles of validating measures. This is discussed in more detail in the following sections.

## 6.2 METHODOLOGY

### 6.2.1 SAMPLE INFORMATION

The families described in this chapter are the same as those described in previous chapters. The normative group was recruited from primary schools in the North London and Berkshire area while the referred sample was recruited from Child and Family Units in the North London area (see chapters three and four for recruitment procedures). Tables 6.2.1, 6.2.2 and 6.2.3 below show demographic and exclusion details.

TABLE 6.2.1: DEMOGRAPHIC PROPERTIES OF NORMATIVE SAMPLE (N=92)			
	VARIABLE	N	PERCENT (%)
Family Constel.	Living with both biological parents	22	24
	Living with single biological parent	59	64
	Living with biological parent and parent's partner	10	11
	Living with extended family	1	1
Employment status	Professional employment <sup>1</sup>	45	49
	Skilled labour	22	24
	Unskilled labour	9	10
	Unemployed <sup>2</sup>	13	14
	Missing employment values	3	3
Sex	Boys	54	59
	Girls	38	42
Ethnicity	United Kingdom	65	69
	Other European	10	11
	Black African or Caribbean	5	5
	Asian	14	15
Age	Mean age (years)	-	8.8yrs
	Age range (years)	-	5.6 – 11.10yrs

<sup>1</sup> These figures are based on the highest category from adults living with child

<sup>2</sup> These figures include adults in full or part-time education

TABLE 6.2.2: EXCLUSION CRITERIA FOR CLINICAL SAMPLE

CRITERIA	TOTAL	BOYS	GIRLS
Outside the age range of 5.0 to 11.11	584	339	245
IQ below 70	4	3	1
English spoken without fluency	27	18	9
Diagnosed or suspected of a pervasive developmental or psychotic disorder	9	7	2
Major medical or neurological condition	22	15	7
Family stress, deemed inappropriate <sup>3</sup>	30	12	18
No suitable guardian for child <sup>4</sup>	25	18	7
Approached, but declined to participate	149	95	54

TABLE 6.2.3: DEMOGRAPHIC PROPERTIES OF CLINICAL SAMPLE (N=42)

	VARIABLE	N	PERCENT (%)
Family Constel.	Living with both biological parents	19	45
	Living with single biological parent	21	50
	Living with biological parent and parent's partner	2	5
	Child living in other circumstances (e.g. foster care)	0	0
Employment status	Professional employment <sup>5</sup>	4	10
	Skilled labour	6	14
	Unskilled labour	4	10
	Unemployed <sup>6</sup>	1	2
	Missing employment values	27	64
Sex	Boys	27	64
	Girls	15	36
Ethnicity	United Kingdom	23	55
	Other European	5	12
	Black African or Caribbean	8	19
	Asian	6	14

<sup>3</sup> e.g. family in shelter, Court Order to attend clinic<sup>4</sup> e.g. recent foster placement<sup>5</sup> These figures are based on the highest category from adults living with child<sup>6</sup> These figures include adults in full or part-time education

Age	Mean age (years)	-	7.4
	Age range (years)	-	6.5 – 11.17

### 6.2.2 MEASURES

Each child and mother pair were seen, at the mother's choice, in the research department in Hampstead, or in the family home. Appointments with the child and mother were conducted simultaneously by two researchers and lasted for a combined total of nine hours, over three sessions.<sup>7</sup>

#### *Hampstead Child Adaptation Measure (HCAM)*

The latest, revised version of the HCAM was conducted with the child's primary caregiver; in this case, all mothers. These interviews were subsequently transcribed and coded according to the latest manual revisions.

#### *The Vineland Adaptive Behaviour Scales (VABS: Sparrow, Balla & Cicchetti, 1984)*

The VABS is a semi-structured clinical interview administered usually with the child's parent or caregiver most knowledgeable about the child's functioning. Adapted from the Vineland Social Maturity Scale (Doll, 1965), the VABS comes in three versions, the Interview Edition, the Survey Form and the Classroom Edition; this study made use of the Survey Form.

Three core and one optional domain of behaviour are covered; communication skills, daily living skills, socialisation and optionally, motor skills. Because the sample in the present study were not physically disabled, and the highest functioning on the Motor skills section significantly under-represented this group, that section was omitted from the administration (see Appendix 6.1.).

#### *The Child Behaviour Checklist (CBCL: Achenbach & Edelbrock, 1983)*

The CBCL is a 138item questionnaire covering symptomatic psychopathology in children. Administered to a parent or primary caregiver, the CBCL items can be grouped together into individual disorders, or more broadly into internalising and externalising disorders.

<sup>7</sup> This figure is based on the full battery of measures, some of which are not discussed in this chapter.

Designed in parallel with the CBCL is a further form assessing social competence. This is similar in format and has also been used in the present study. See Appendices 6.2 – 6.3.

*Self-Perception Profile and Social Support Scale for Children (Harter, 1985a; 1985b)*

This study made use of two self-report forms; Self-perception profile (What am I like) and perceived Social Support (People in My Life), including a version for children below and above the age of eight. In addition to a global score, the What am I like form is rated along five subscales; Scholastic competence, Social acceptance, Physical attractiveness, Behavioural competence and Athletic competence. The People in my life form also has four subscales; Teacher support; Parent support; Classmate support and Friend support. See Appendix 6.4.

*The Children's Depression Inventory (CDI: Kovacs, 1981)*

The CDI is a self-administered questionnaire assessing cognitive, affective and behavioural characteristics of depression in children. Designed similarly to the Beck Depression Inventory (Beck et al., 1961) for adults, the 27 items offer three statements with varying degrees of intensity and ask the child to choose which intensity most closely approximates their own feelings and experiences. See Appendix 6.5.

*Global Assessment of Functioning (GAF: DSM-IV; American Psychiatric Association, 1994)*

The GAF is a global measure of overall functioning, forming Axis V of the DSM-IV. It is a 100 point scale rated by an assessor (in this case, the same rater as the one who originated the HCAM score) for current highest level of functioning at time of evaluation and over the past year, with a clinical cut-off point of 70. See Appendix 3.1.

*State-Trait Anxiety Inventory for Children (STAI-C: Spielberger, 1973)*

The STAI-C is a self-administered measure of anxiety, asking the child to identify how accurately 40 emotional states or behaviours describe themselves. The first 20 items identify the child's state anxiety, while the remaining 20 address trait anxiety. See Appendix 6.6.



*Child and Adolescent Functioning Scale (CAFAS: Hodges, 1989, 1994)*

The CAFAS comprises eight subscales: School/Work, Home, Community, Behaviour towards others, Moods/Emotions, Self-Harmful Behaviour, Substance Use and Thinking. These correspond to six psycho-social areas of functioning (Role Performance, Behaviour towards others, Moods/Emotions, Self-Harmful Behaviour, Substance Use and Thinking). Each scale comprises a menu of behavioural descriptions or criteria which are divided into four levels of impairment; minimal or no impairment, mild impairment, moderate impairment, and severe impairment. See Appendix 6.7.

### **6.3 RESULTS**

#### **6.3.1 STUDY ONE: INVESTIGATION OF THE HCAM GLOBAL SCORE**

##### **The Relationship Between the HCAM Global Score and Validating Measures of Overall Functioning**

The ultimate goal of the HCAM is to measure overall adaptation and the first stage of data analysis compared the HCAM *Global score* with the global scores of the measures assessing overall functioning; Child and Adolescent Functioning Scale (CAFAS), Global Assessment of Functioning scale (GAF), Vineland Adaptive Behaviour Scale (VABS), Social Competence Scale (SCS) and Child Behaviour Checklist (CBCL). These measures share the common characteristic of a total score, which attempts to reflect the child's overall functioning, while each approaches the task with a different focus. The CBCL assesses symptomatology, the SCS social competence, the CAFAS impairment in functioning due to symptomatology, the VABS age appropriate adaptive skill and the GAF global functioning. Pearson correlations outlining these relationships are shown below in Table 6.3.1

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TABLE 6.3.1: PEARSON CORRELATIONS  
BETWEEN HCAM GLOBAL SCORE AND VALIDATING MEASURES<sup>8</sup>

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VALIDATING MEASURE	INFORMANT	PEARSON CORRELATION
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<sup>8</sup> CAFAS: Child and Adolescent Functioning Scale; GAF: Global Assessment of Functioning scale; VABS: Vineland Adaptive Behaviour Scale; SCS: Social Competence Scale; CBCL: Child Behaviour Checklist

CAFAS Total score (N=25)	Parent	-.87**
GAF (N=25)	Parent	.79**
VABS (N=82)	Parent	.38***
SCS (N=109)	Parent	.16
CBCL: internalising disorders (N=115)	Parent	-.58***
CBCL: externalising disorders (N=115)	Parent	-.67***
CBCL: total score (N=115)	Parent	-.66*

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\*p<.05   \*\*p<.01   \*\*\*p<.001

The HCAM *Global score* shows highly significant relationships with other measures of global functioning. The measure of symptomatology, CBCL, and impairment in functioning, CAFAS, show Pearson correlation coefficients of (-.66\*\*) and (-.87\*\*\*) respectively. Grouping CBCL scores into internalising and externalising disorders also shows high correlative relationships of (-.58\*\*\*) and (-.66\*\*\*), while the GAF demonstrates a (.79\*\*) correlation. The smallest significant relationship is between the HCAM *Global score* and the Vineland Adaptive Behaviour Scale with a coefficient of (.38\*\*\*), while the global Social Competence Scale shows no significant relationship.

#### The Relationship Between HCAM Global Score and Sub-scales of Validating Measures of Overall Functioning

In the previous section, the HCAM *Global score* was compared with the global score of measures assessing overall functioning. This section using Pearson correlations to compare the HCAM *Global score* with the sub-scales of the same measures, shown in

Table 6.3.2 below.

TABLE 6.3.2: PEARSON CORRELATIONS BETWEEN HCAM GLOBAL SCORE AND SUB-SCALES OF VALIDATING MEASURES <sup>9</sup>		
VALIDATING MEASURE	INFORMANT	PEARSON CORREL.
CAFAS: behaviour towards others (N=25)	Parent	-.23
CAFAS: mood/emotions (N=25)	Parent	-.87**
CAFAS: role performance (N=25)	Parent	-.83**
CAFAS: self-harmful behaviour (N=25)	Parent	-.16
CAFAS: substance abuse (N=25)	Parent	-.15
CAFAS: thinking (N=25)	Parent	-.21
VABS: communication skills (N=115)	Parent	.13
VABS: daily living skills (N=115)	Parent	.31**
VABS: socialisation skills (N=115)	Parent	.48***
SC: activities (N=115)	Parent	.35***
SC: socialisation (N=115)	Parent	.33***
SC: school (N=115)	Parent	.40***
CBCL: withdrawn disorders (N=115)	Parent	-.59***
CBCL: Somatisation (N=115)	Parent	-.36***
CBCL: anxiety disorders (N=115)	Parent	-.57***
CBCL: social disorders (N=115)	Parent	-.64***
CBCL: thought disorders (N=115)	Parent	-.50***
CBCL: attention disorders (N=115)	Parent	-.66***
CBCL: delinquent disorders (N=115)	Parent	-.57***
CBCL: aggressive disorders (N=115)	Parent	-.63***
CBCL: sexual disorders (N=115)	Parent	-.28*
*p<.05 **p<.01		**p<.001

The HCAM *Global score* shows a significant Pearson correlation with two CAFAS sub-scales; *Mood/Emotions* (-.87\*\*) and *Role performance* (-.83\*\*). Two of the three VABS sub-scales also show significant relationships, *Daily living skills* (.31\*\*) and *Socialisation skills* (.48\*\*), while all the sub-scales from the Social Competence Scale and CBCL show significant relationships, ranging from *Sexual disorders* (-.28\*) to *Attention disorders* (-.64\*\*\*).

### The Predictive Relationship Between Global Score and Validating Measures

The previous section investigated the relationship between the HCAM *Global score* and the sub-scales of measures assessing overall functioning. This section examines the predictive relationship between the HCAM *Global score* and the groups of subscales comprising each validating measure.

#### *Vineland Adaptive Behaviour Scales (VABS)*

A stepwise linear regression predicting the HCAM *Global score* with the VABS sub-scales Communication skills, Daily living skills and Socialisation skills shows only the Socialisation skills domain to be significantly predictive,  $F(1, 80) = 21.78$ ,  $p < .001$ ; shown in Table 6.3.3.

TABLE 6.3.3: REGRESSION ANALYSIS PREDICTING  
HCAM GLOBAL SCORES FROM VINELAND SUBSCALES

VARIABLE	B	STD ERROR	T	SIGN LEVEL
Communication skills	.289	.59	4.9	.000

$r^2 = .231$

#### *The Child Behaviour Checklist (CBCL)*

A stepwise linear regression predicting the HCAM *Global score* from the CBCL sub-scales Withdrawn, Somatisation, Anxiety, Social, Thought, Attention, Delinquency, Aggression

<sup>9</sup> CAFAS: Child and Adolescent Functioning Scale; GAF: Global Assessment Functioning scale; VABS: Vineland Adaptive Behaviour Scale; SCS: Social Competence Scale; CBCL: Child Behaviour Checklist

and Sexual disorders shows Attention, Anxiety and Social disorders to be significantly predictive,  $F(3, 110) = 49.50$ ,  $p < .001$ ; shown in Table 6.3.4.

TABLE 6.3.4: REGRESSION ANALYSIS PREDICTING  
HCAM GLOBAL SCORES FROM CBCL SUBSCALES

VARIABLE	B	STD ERROR	T	SIGN LEVEL
Attention	-.410	-4.2	.10	.000
Anxiety	-.379	-4.0	.10	.000
Social	-.001	-2.9	.03	.005

$r^2 = .656$

### Discussion

This study investigated the concurrent validity of the HCAM *Global score* in relation to other global measures of functioning for children. These measures were chosen for comparison because they are commonly used measures in clinical and research settings (Target & Fonagy, 1994a; Cantwell, 1994; Achenbach, 1995c). Collectively, these measures also represent a wide range of approaches to assessment of behaviour, covering symptomatology, social competence, adaptive skills and impairment in functioning due to symptomatology.

The first analysis compared the *Global score* with the global score of the validating measures, demonstrating fairly high significant correlation coefficients with measures of global adaptation, symptomatology and impaired functioning. Moderate correlations were demonstrated with adaptive skills, and no significant relationship was shown with social competence. Closer inspection of these last two measures reveals a possible explanation for these weaker relationships. The adaptive behaviour scale, although administered as a semi-structured interview, is in essence, a list of skills and behaviours, for example addressing an envelope or using a payphone. The social competence scale focuses extensively on the child's activities, within and outside the school setting, with regard to quantity and frequency. Neither emphasis from these measures sufficiently maps the conceptualisation of adaptation as targeted by the HCAM, particularly in relation to the *Global score*, and it is appropriate for these correlations to be weaker given the target construct of the HCAM manual (Anastasi & Urbina, 1997; Kline, 1993).

The second part of this study continued to focus on the HCAM *Global score*, comparing this to the subscales of the same measures discussed above. Pearson correlations between these items confirmed the trend seen in the previous analysis; the relationship with the *Global score* was stronger for subscales measuring the child's adaptive style, although relatively weaker for those focused on specific behaviours or disturbance, for example CBCL: somatisation, and CAFAS: substance abuse. This pattern continued to be supported by the regression analysis, predicting *Global scores* from each group of subscales, where the subscales less oriented towards overall adaptive behaviour or impairment are not predictive in quality.

### *Conclusion*

This study demonstrated the strength of the HCAM as a global measure of adaptation. This is an important confirmation as the *Global score* is, arguably, the most important domain assessed. This is partly because the prospective manual was developed from, and aims to be an extension of, a global assessment measure. But more importantly, global scores have been shown to be most sensitive to changes in clinical intervention (Bird et al., 1987; Bird et al., 1990), a goal for which the HCAM was originally developed.

The HCAM *Global score* also showed higher correlative relationships and predictive characteristics with concurrent measures focused towards psycho-social and emotional functioning rather than specific disorders or pathology. This too is an important confirmation. Designed to be sensitive to symptomatology, the HCAM manual aimed to fill the current need for assessments incorporating adaptive and pro-social behaviour alongside impairment. The difference in correlational strengths demonstrated in these studies confirms that goal.

While this study successfully addresses a number of important questions, there are areas of limitation. The most prevalent concerns the differences in sample sizes assessed with each measure. While this will not change the nature of the relationships individually, it should be taken into account when considering the statistical power underlying the analyses, as well as comparison across measures.

The second limitation concerns the restriction of conducting these analyses solely with the *Global score*. While the HCAM is designed to retain characteristics of a global and dimensional measure, only the global aspects of the manual have been explored here. The sensitivity of the individual parameters must also be tested in the context of validation and sensitivity to different presentation styles of behaviour. It is this issue which is addressed in the following study.

### 6.3.2 STUDY TWO: INVESTIGATION OF HCAM PARAMETERS

The previous study investigated the relationship between the HCAM *Global score* and measures of similar constructs by examining their concurrent and predictive relationships. This was demonstrated by first comparing the global scores of both, then by comparing the HCAM *Global score* with the subscales of the validating measures. This section returns to the global scores of these validating measures, and compares them with the HCAM parameter scores.

#### The relationship between HCAM parameters and The Child and Adolescent Functional Assessment Scale (CAFAS)

To investigate the relationship between HCAM parameters and the CAFAS total score, Pearson correlations were firstly conducted, shown below in Table 6.3.5.

TABLE 6.3.5: PEARSON CORRELATIONS BETWEEN CAFAS  
TOTAL SCORE AND HCAM PARAMETERS (N=25)

HCAM PARAMETER	PEARSON CORRELATION
Learning and work	-.59*
Play and hobbies	-.49*
Impulse control	-.77**
Relationship with Mum	-.59**
Relationships with other adults	-.48*
Capacity to cope with stress	-.60***
Variability of mood	-.49*
Moral development	-.72**

\*p<.05 \*\*p<.01 \*\*\*p<.001

Of all the HCAM parameters only the following do not significantly relate to the CAFAS global score: *Responsibility for body needs*, *Relationship with peers*, *Confidence* and *Sexual development*, all the rest show correlation coefficients between *Relationship with adults* (-.48\*) and *Impulse control* (-.77\*\*). The remaining parameters show moderate to high correlation coefficients.

The relationship between HCAM parameters and Vineland Adaptive Behaviour Scales (VABS)

To investigate the relationship between HCAM parameters and VABS, Pearson correlations were performed, shown below in Table 6.3.6.

TABLE 6.3.6: PEARSON CORRELATIONS BETWEEN HCAM PARAMETERS AND VINELAND TOTAL SCORE N=82

HCAM PARAMETER	PEARSON CORRELATION
Body needs	.25*
Learning and work	.35***
Play and hobbies	.35***
Impulse control	.29**
Relationship Mum	.37***
Relationship peers	.36***
Relationship adults	.24*
Confidence	.32**
Capacity to cope with stress	.32**
Variability of mood	.14
Sexual development	.24*
Moral development	.35**

\*p<.05 \*\*p<.01 \*\*\*p<.001

The VABS demonstrates a moderately significantly relationship with the HCAM parameters on all parameters except for *Variability of mood*, ranging from *Sexual development* and *Relationship with adults* (.24\*) to *Relationship with mother* (.37\*\*).



A stepwise linear regression analysis, predicting the Vineland global score from HCAM parameters, shows only *Capacity and motivation for learning and work* to be significantly predictive at  $F(1, 72) = 14.97$   $p < .001$ ; shown in Table 6.3.7

TABLE 6.3.7: REGRESSION ANALYSIS PREDICTING  
VINELAND GLOBAL SCORES FROM HCAM SUBSCALES

VARIABLE	B	Std Error	T	SIGN LEVEL
Learning and Work	.624	.17	3.9	.005

$r^2 = .130$

#### The Relationship Between HCAM Parameters and Child Behaviour Checklist

As before, Pearson correlations between the HCAM parameters and CBCL disorders are shown in Table 6.3.8 below, while a stepwise linear regression analysis follows.

TABLE 6.3.8: PEARSON CORRELATIONS BETWEEN HCAM PARAMETERS AND CBCL DISORDERS

PARAM	W'DRN	SOMAT	ANXTY	SOCIAL	THGHT	ATTNT	DLNCY	AGRES	SEX
Body	-.45***	-.18	-.34***	-.39***	-.42***	-.55***	-.35***	-.35***	-.14
Learn	-.38***	-.25**	-.36***	-.45***	-.20*	-.48***	-.35***	-.41***	-.05
Play	-.47***	-.23*	-.33***	-.46***	-.38***	-.60***	-.28**	-.32***	-.17
Impulse	-.45***	-.28**	-.45***	-.62***	-.42***	-.57***	-.58***	-.61***	-.24*
Mum	-.55***	-.32***	-.44***	-.52***	-.49***	-.60***	-.59***	-.66***	-.32**
Peer	-.56***	-.32***	-.50***	-.56***	-.46***	-.53***	-.40***	-.48***	-.26*
Adults	-.29**	-.14	-.28**	-.31***	-.40***	-.48***	-.39***	-.49***	-.12
Conf	-.55***	-.34***	-.56***	-.55***	-.33***	-.52***	-.45***	-.47***	-.23*
Stress	-.63***	-.41***	-.66***	-.66***	-.59***	-.60***	-.60***	-.63***	-.19
Mood	-.46***	-.35***	-.56***	-.52***	-.48***	-.48***	-.47***	-.56***	.33**
Sex	-.35***	-.21*	-.32***	-.38***	-.30***	-.43***	-.29**	-.35***	-.32**
Moral	-.52***	-.34***	-.54***	-.56***	-.47***	-.60***	-.60***	-.63***	-.24*

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

These correlations confirm appropriate relationships between HCAM parameters and CBCL disorders. For example, while the relationship between *Relationship with adults* and Somatisation is relatively small (-.14), the coefficient between *Moral development* and Delinquency is high (-.60\*\*\*).

A stepwise regression analysis, predicting CBCL global score from HCAM parameters, shows *Capacity to cope with stress* and *Moral development* to be significantly predictive,  $F(2, 105) = 40.85$ ,  $p < .000$ ; shown in Table 6.3.9 below.

TABLE 6.3.9: REGRESSION ANALYSIS PREDICTING  
CBCL GLOBAL SCORE FROM HCAM PARAMETERS

VARIABLE	B	Std Error	T	SIGN LEVEL
Stress	-.371	.10	-4.4	.000
Moral	-.355	.12	-.27	.022

$r^2 = .468$

#### The Relationship Between HCAM Parameters and Validating Measures Focusing on Specific Constructs

As discussed previously, the breadth of constructs addressed by the HCAM requires a number of validating measures. Previous sections of this study have investigated the aspects of the HCAM in relation to measures of global functioning. This section addresses more specific domains of adaptation, specifically, measures of mood as assessed by the State-Trait Anxiety Questionnaire (STAI-C: Spielberger, 1973), the Children's Depression Inventory (CDI: Kovacs, 1981) and self-esteem as measured by the Self-perception Profile (Harter, 1985a; 1985b). In addition to detailing a more specific focus on individual constructs, these measures also make use of the child as the informant, in contrast to the mother as informant in the previous studies.

*State-Trait Anxiety Questionnaire (STAI-C: Spielberger, 1973)*

To investigate the relationship of HCAM parameters with the Stai-C (child as informant), Pearson correlations were conducted, shown below in Table 6.3.10.

TABLE 6.3.10: PEARSON CORRELATIONS BETWEEN HCAM PARAMETERS AND TOTAL STAI-C ANXIETY SCORE (N=39)

HCAM PARAMETER	TOTAL ANXIETY SCORE
Body needs	-.04
Learning and work	-.19
Play and hobbies	-.13
Impulse control	-.35*
Relationship Mum	-.05
Relationship peers	-.27
Relationship adults	-.40*
Confidence	-.29
Capacity to cope with stress	-.38*
Variability of mood	-.34*
Sexual development	-.05
Moral development	-.31

\*p<.05

These figures show a significant relationship between anxiety as reported by the child and *Impulse control* (-.35\*), *Relationship with adults* (-.40\*), *Capacity to cope with stress* (-.38\*) and *Variability of mood* (-.34\*) as reported by the mother.

A stepwise regression analysis, predicting total anxiety score, shows *Relationship with adults* and *Play and hobbies* to be significant predictors at  $F(2, 32) = 7.11$ ,  $p < .003$ ; shown in Table 6.3.11.

TABLE 6.3.11: REGRESSION ANALYSIS PREDICTING ANXIETY SCORES FROM HCAM PARAMETERS

VARIABLE	B	Std Error	T	SIGN LEVEL
Adults	-.839	.14	-4.4	.000
Play	-.389	.19	3.8	.002

$r^2 = .642$

*Children's Depression Inventory (CDI: Kovacs, 1981)*

To investigate the relationship between HCAM parameters and depression, Pearson correlations were calculated, shown below in Table 6.3.12.

TABLE 6.3.12: PEARSON CORRELATIONS BETWEEN HCAM PARAMETERS AND CHILDREN'S DEPRESSION INVENTORY N=43

HCAM PARAMETER	CHILDREN'S DEPRESSION INVENTORY
Body needs	-.19
Learning and work	-.39*
Play and hobbies	-.23
Impulse control	-.45**
Relationship Mum	-.13
Relationship peers	-.33*
Relationship adults	-.44**
Confidence	-.37*
Capacity to cope with stress	-.38*
Variability of mood	-.32*
Sexual development	-.11
Moral development	-.37*

\*p<.05 \*\*p<.01

These figures show a significant relationship between depression as reported by the child and functioning as reported by the parent in the parameters *Impulse control* (-.45\*\*), *Relationship with peers* (-.33\*), *Relationship with adults* (-.44\*\*), *Confidence & self-esteem* (-.37\*), *Capacity to cope with stress* (-.38), *Variability of mood* (.32\*) and *Moral development* (-.37\*).

A stepwise regression analysis, predicting depression score, shows *Capacity to cope with Stress* to be a significant predictor at  $F(1, 33) = 8.54$ ,  $p < .006$ ; shown below in Table 6.3.13.

TABLE 6.3.13: REGRESSION ANALYSIS PREDICTING DEPRESSION SCORES FROM HCAM PARAMETERS

VARIABLE	B	Std Error	T	SIGN LEVEL
Stress	-.31	.10	3.0	.006

$r^2 = .255$

*Self-Perception Profile and Social Support Scale for Children*

These two People in My Life (PL) and What am I Like (WL), both filled-in by the child. The PL questionnaire has four subscales, Teacher support, Parent support, Classmate support and Friend support. A stepwise regression shows no predictive subscales of the HCAM *Global score* while Pearson correlations show only two parameters correlate significantly with two of the PL subscales, shown below in Tables 6.3.14.

TABLE 6.3.14: PEARSON CORRELATIONS BETWEEN SIGNIFICANT HCAM PARAMETERS AND HARTER: PEOPLE IN MY LIFE (N=101)

HCAM PARAM	CLASSMATE SUPPORT	FRIEND SUPPORT
Relationship peers	.28**	.23*
Variability of mood	.20*	

\*p<.05 \*\*p<.01

The WL questionnaire has five subscales, Scholastic competence, Social acceptance, Physical attractiveness, Behavioural Competence and Athletic competence. Significant relationships with the HCAM parameters are shown below in Table 6.3.15.

TABLE 6.3.15: PEARSON CORRELATIONS BETWEEN SIGNIFICANT HCAM PARAMETERS AND HARTER: WHAT AM I LIKE (N=101)

HCAM PARAM	SCHOLASTIC COMPETENCE	SOCIAL ACCEPTANCE	PHYSICAL ATTRACTIVE	BEHAV'L COMPETENCE	ATHLETIC COMPETENCE
Learning				.23*	
Relation mum					.21*
Relation peers		.30**			
Relation adult				.21*	
Global	.34***	.44***	.18	.70***	.26**

\*p<.05 \*\*p<.01 \*\*\*p<.001

A stepwise regression analysis, predicting the HCAM *Global score*, shows behavioural competence to be significantly predictive at  $F(1, 113) = 14.89$   $p < .001$ ; shown in Table 6.3.16.

TABLE 6.3.16: REGRESSION ANALYSIS PREDICTING HCAM GLOBAL SCORES FROM HARTER: WHAT AM I LIKE SUBSCALES

VARIABLE	B	STD ERROR	T	SIGN LEVEL
Behavioural comp	.621	.159	3.65	.000

## Discussion

While the previous study focused on the relationship between the validating measures and the HCAM *Global score*, this study reversed the analyses and examined the individual HCAM parameters with the global scores of the validating measures.

Previous results highlighted the stronger relationship between the HCAM and measures of psycho-social functioning over specific disorders or behaviours. This study supported this pattern from a different perspective, confirming both construct and content validity of the HCAM manual.

The first group of analyses examined the parameters in relation to the same measures of global functioning as discussed in the study above: symptomatology, social competence, functioning due to symptomatology, and adaptive skill. It was demonstrated that, like previously, the relationship between parameter and measure varied, dependent upon the extent to which target constructs for each were similar. For instance, when compared with a measure of adaptive skill (VABS), *Relationship with Mum* showed the strongest correlation overall, while only *Capacity and motivation for learning* demonstrated a predictive relationship and *Variability of mood* showed no significant results at all. It would be expected that with a measure focusing on the age-appropriate level of skill achieved, as the VABS intends to do, HCAM parameters reflecting the child's daily support (*Relationship with Mum*) and approach and success with learning (*Learning*) would be most strongly associated. *Mood*, in contrast, has comparatively less influence on a children's ability to make change or use domestic tools, both examples of VABS items.

The relationship between parameters and symptomatology offers a second example of this situation. While the vast majority of parameters and CBCL disorders are significantly related, the disorders most strongly associated are those that would most affect the child's ability to maintain healthy roles within their lives. For example Social and Aggressive disorders are far more highly correlated than Sexual or Somatisation disorders.

The second part of this study supports the previous work. Two issues were addressed; aspects of the HCAM's target construct not covered in the analyses examined previously,

and the validity of mother as an informant of the child's behaviour. To do this, self-report measures of mood (anxiety and depression) as well as self-esteem, were investigated.

Regarding the first objective, these analyses continued to confirm the validity of the HCAM by demonstrating its sensitivity to specific pathology with an emphasis on psycho-social adaptation. For example, *Variability of mood*, *Capacity to cope with stress* and *Relationship with peers* (among others) were related to the child's report of depression, while *Responsibility for body needs* and *Sexual development* were not. Equally, only *Capacity to cope with stress* successfully predicted the child's depression score.

The question of the child's mother as a valid informant was also confirmed. For example, only the *Relationship with peers* parameter, as reported by the mother, relates significantly (if moderately) to the child's report of friend and classroom support. Also, the mother's report of global functioning on the HCAM can be predicted by the child's self-report of Behavioural competence.

Despite this confirmation, one result in this study did highlight the need for further clarity. In both comparisons between the child's reporting of mood and HCAM parameters as reported by the mother, *Relationship with adults* emerged as the most significantly correlated parameter. This seems to suggest that difficulties with mood as experienced by the child are being experienced by mothers as acting out, shyness or other awkward behaviour with adults outside the family. Further examination assessing whether children's mood does genuinely effect their behaviour with unrelated adults, or whether there is some discrepancy between the child's internal state and mother's interpretation, is required.

### *Conclusion*

This study addressed the concurrent and construct validity of the HCAM, as well as the accuracy of mother as the informant of her child's behaviour, in a number of ways. Firstly, by examining the relationship between individual HCAM parameters and the global score of assessment measures focused on symptomatology, adaptive skill and functioning due to pathology. Secondly, by focusing in more detail on child self-report forms, particularly in relation to the child's reporting of mood. Collectively, these results

confirm the pattern seen in previous studies of the sensitivity of the HCAM to symptoms and specific disorders, while emphasising the psycho-social aspects of development, for example interpersonal relationships and self-esteem. There was also some evidence to support the compatibility of child and mother's view of the child's feelings and behaviour.

While this study addressed a number of important issues, there are also questions raised, particularly focused on the issue of informant validity. Most significantly, while the construct and content of the HCAM was shown in these studies to sensitively and appropriately match existing measures of functioning, all but a small number of the analyses shared the same informant; mother. Further work using a multinformant approach would greatly increase the evidence uncovered in the current work. This is discussed in more detail in chapter seven.

Of the informant analysis that is demonstrated in this study, there is some evidence to suggest accurate reporting by the mother. However, it is unclear if this same information could not just as easily be established from a less intensive method of assessment, for example the CBCL. To establish this, it would be necessary to examine the relationship between mother and child's reporting of the child's behaviour, while controlling for a concurrent assessment of symptomatology. This issue is the focus of the following study.

### 6.3.3 STUDY THREE: HCAM SENSITIVITY TO CHILD SELF-REPORTS MEASURES CONTROLLING FOR MOTHER'S REPORTING OF SYMPTOMATOLOGY

An important question concerning the HCAM's validity is the extent to which it can assess the child's adaptation beyond what is already established by measures of symptomatology. This is particularly salient when considering the potential discrepancy between the mother's and child's report of less observable emotional states, and the lengthy assessment involved with the HCAM manual in comparison to a self-report questionnaire. This study investigates this issue by focusing specifically on the comparison between HCAM scores and child self-report measures of mood, controlling for what is already known by the mother's report of symptomatology.



*Child's Report of Anxiety*

Table 6.3.17 below shows the partial Pearson correlations between the HCAM parameters and the Child's report of anxiety, controlling for the mother's report of symptomatology as defined by the CBCL.

TABLE 6.3.17: PEARSON CORRELATIONS BETWEEN HCAM PARAMETERS AND TOTAL STAI-C SCORE: CONTROLLING FOR TOTAL CBCL SCORE (N=39)	
HCAM PARAMETER	PEARSON CORRELATION
Body needs	-.28
Learning and work	-.07
Play and hobbies	-.26
Impulse control	-.27
Relationship Mum	-.29
Relationship peers	-.24
Relationship adults	-.46*
Confidence	-.22
Capacity to cope with stress	-.33*
Variability of mood	-.34*
Sexual development	-.09
Moral development	-.22

\*p<.05

Of these correlations, only *Impulse control* loses significance when controlling for symptomatology (-.35 falls to -.27). All other significant relationships remain, i.e. *Relationship with adults* (-.46\*), *Capacity to cope with stress* (-.33\*) and *Variability of mood* (-.34\*).

*Child's Report of Depression*

Using the same approach as above, Table 6.3.18 below shows the partial Pearson

correlations between the child's report of depression and HCAM parameters, controlling for the parent's report of symptomatology as reported in the CBCL.

TABLE 6.3.18: PEARSON CORRELATIONS BETWEEN  
HCAM PARAMETERS AND DEPRESSION SCORES:  
CONTROLLING FOR TOTAL CBCL SCORE (N=43)

HCAM PARAMETER	PEARSON CORRELATION
Body needs	-.27
Learning and work	-.34*
Play and hobbies	-.34*
Impulse control	-.25
Relationship mum	-.15
Relationship peers	-.16
Relationship adults	-.57**
Confidence	-.15
Capacity to cope with stress	-.02
Variability of mood	-.41**
Sexual development	-.09
Moral development	-.37*

\*p<.05

Of these correlations, only *Play & hobbies* gains significance when controlling for symptomatology (-.23 increases to -.34), while four correlations lose significance; *Impulse control*; *Relationship with peers*; *Confidence & self-esteem* and *Capacity to cope with stress*, while significant relationship remains with *Capacity and motivation for learning*, *Play & hobbies*, *Relationship with adults* and *Variability of mood*.

### Discussion

This study investigated the capacity of the HCAM to measure beyond what is already known by the mother's report of symptomatology, using Pearson correlations between mother's report on HCAM parameters and child's report of mood while controlling for CBCL scores.

In both cases of the child's reporting of anxiety and depression, the *Impulse control* parameter lost significance when controlling for symptoms. Parameter relationships with

anxiety were otherwise not altered from the previous study. In contrast, parameter relationships with depression demonstrated *Play & hobbies* increasing to significance, while three others dropped out.

The loss of *Impulse control* when controlling for symptomatology is perhaps unsurprising. This parameter highly correlates to examples of symptomatology, many of which will accompany disturbances of mood. Of the parameters that remain, two issues are of particular importance. The first is the sustained strength and presence of the *Variability of mood* parameter in both the reporting of anxiety and depression. This presence continues to support both the validity of the HCAM manual and the appropriate use of mother as an informant.

The second is the continued significance of *Relationship with adults*, also discussed in the previous study. While it remains outside the scope of this thesis to explore this finding further, this study confirms the previous suggestion that further work is required to greater understand this issue.

### Conclusion

These results confirm the capacity of the HCAM to assess the aspects of functioning less observable by an outsider, in this case the mother, beyond what is already established by a measure of symptomatology. In addition to supporting the use of mother as informant, these findings also support the establishment of the HCAM as contributing valuable information in addition to existing measures of functioning in childhood. While there are no inherent difficulties with this study, it is limited. To fully explore these issues would require a more detailed approach in terms of measures included and scope of analysis (discussed in more detail in chapter seven), both of which are outside the scope of this thesis.

### 6.3.4 STUDY FOUR: DISCRIMINANT POWER OF THE HCAM

A discriminant function analysis was performed to investigate the capacity of the HCAM *Global score* to differentiate between a normative and referred sample of children. This analysis was significant, Wilks' Lambda = .39,  $\chi^2(1, 29) = 115.21$ ,  $p < .001$ , showing the

*Global score* able to predict 94.3% of the normative group and 83.3% of the referred group.

Including the CBCL total score in a stepwise discriminant function analysis did not increase the discriminating power, Wilks' Lambda = .39,  $\chi^2(2, 28) = 114.91$ ,  $p < .001$ , showing the combined measures able to predict 94.2% of the normative group and 82.8% of the referred group. This analysis also showed the HCAM *Global score* ( $F(2, 28) = 188.95$ ) to be a stronger predictor of group membership than the CBCL total score ( $F(2, 28) = 100.23$ ).

A final stepwise discriminant function analysis was performed to investigate the discriminating power of individual HCAM parameters. Overall, this analysis was significant, Wilks' Lambda = .33,  $\chi^2(14, 16) = 100.88$ ,  $p < .001$ , able to predict 93.2% of the normative group and 85.3% of the referred group. Only parameters *Capacity to cope with stress* ( $F(14, 16) = 173.0$ ) and *Learning and work* ( $F(14, 16) = 92.37$ ) were shown to discriminate between group referral status.

### Discussion

This study investigated the ability of the HCAM to discriminate between children with different referral status. In addition to successfully distinguishing between groups, no strength was added to the analysis when the CBCL total score was included. In addition, a stepwise analysis demonstrated the HCAM to be a better predictor of referral status than CBCL total score. Of the fourteen individual parameters, *Capacity to cope with stress* and *Capacity and motivation for learning* were shown to be significant predictors distinguishing between the normative and referred group of children.

While discriminant validity is not the only evidence of validity required for a new measure, without it, no measure can be considered valid (Kline, 1993; Berger, 1994). This study has shown the HCAM manual able to distinguish between children who have been referred to a child and family clinic and those who have not. It is perhaps this definition of group membership that underlies the HCAM's stronger capacity to predict referral status than the CBCL. Children who are referred to a community clinic do not automatically meet criteria for diagnostic disorder, the basis for CBCL rating. This may

be partly because the referral masks other more genuine problems, such as family dysfunction, or more usually because the presenting problem falls short of the strict criteria laid out in the DSM. The capacity of the HCAM to discriminate between referral status on the basis of *impairment*, rather than diagnoses, is a strong validation of the attempt to create a measure of adaptation, rather than symptomatology.

In addition, referral status does not necessarily suggest differences in the environmental stressors surrounding the child and many children in the normative group may be experiencing life events of equal negativity as the referred group. The differences between the two may rely more on the resilience of the child to these stressor than any environmental variables (Gore & Eckenrode, 1996). There is some support for this theory. The parameter *Capacity to cope with stress* most reflects a child's resilience and it is this parameter which is demonstrated to be the strongest predictor of referral status. Associated to the issue of resilience is the child's functioning at school, an area most often vulnerable to impairment and where difficulties are often first discovered (Garmezy & Masten, 1994; Rutter, 1996). It is this parameter that is the second predictor of referral status.

### *Conclusion*

This study has shown the HCAM able to discriminate between a normative and referred group of children with greater accuracy than measures of symptomatology. Defining group status with a greater focus on psychiatric disorder may limit the HCAM's discriminate power. However, the HCAM was conceptualised for the measurement of adaptive and impaired behaviour within a clinic environment, and the current investigation most appropriately reflects this aim.

This study supported the capacity of the HCAM to identify current levels of impaired functioning. To be of value as an outcome measure, the HCAM must also be sensitive to future development of impairment. The following study examines this question by investigating the relationship between HCAM scores and future ratings of symptomatology.

### 6.3.5 STUDY FIVE: THE RELATIONSHIP BETWEEN UNEVEN FUNCTIONING AND FUTURE IMPAIRMENT

As discussed in chapter one, there is evidence to suggest that children exhibiting uneven functioning are at greater risk for future pathology than those who do not (A. Freud, 1965). To investigate these ideas, each child was assigned a variance score<sup>10</sup> reflecting the discrepancy in scores across HCAM parameters. In this way, children who showed a minimum score of 75 and a maximum score of 85, would have a higher variance score than a child who scored 85 consistently across parameters.

The first set of analyses used Pearson correlations between the child's variance score, the HCAM *Global score* and measures of symptomatology; the Child Behaviour Checklist (CBCL), internalising disorders, externalising disorders and total score. These are shown below in Table 6.3.19.

TABLE 6.3.19: PEARSON CORRELATIONS BETWEEN CHILD'S VARIANCE SCORE AND CURRENT FUNCTIONING

GLOBAL FUNCTIONING	PEARSON CORRELATION
HCAM Global (N=49)	-.89***
CBCL Internalising (N=85)	.62***
CBCL Externalising (N=85)	.63***
CBCL Total (N=85)	.63***

\* \*\*p<.001

These correlations show strong relationships between the child's variance score on the HCAM to concurrent measures of functioning as well as the CBCL groupings.

To investigate the influence of a child's variance score at time one with future functioning, Pearson correlations were conducted between variance score at time one

<sup>10</sup> Computed by summing the series of absolute values for each parameter minus the child's mean  $\Sigma |x - \text{mean}|$  where x is child's parameter score.

with the same measures of functioning at time two and three, shown below in Table 6.3.20.

TABLE 6.3.20: PEARSON CORRELATIONS BETWEEN CHILD'S VARIANCE SCORE AT TIME 1 AND MEASURES OF FUTURE FUNCTIONING AT TIME 2 AND 3 <sup>11</sup>		
GLOBAL FUNCTIONING	PEARSON CORRELATION TIME 2	PEARSON CORRELATION TIME 3
HCAM Global (N=37;16)	-.27*	.03
CBCL Internalising (N=67;16)	.25*	.34
CBCL Externalising (N=67;16)	.27*	.33
CBCL Total (N=67;16)	.26*	.49*

\*p<.05

Children's variance scores remain moderate predictors of functioning the following year, and a strong predictor of symptomatology two years later.

### Discussion

This study investigated the affects of variability in functioning on current and future adaptation. The first set of analysis confirmed that discrepancy across parameters was strongly related to current measures of functioning and symptomatology. The second analyses shows that uneven functioning moderately predicted functioning one year later and strongly predicted symptomatology two years later.

These results support the theory that variance across functioning may, in itself, be a measure of impairment. The HCAM's capacity to measure this aspect of children's adaptive style continues to support its validity as a measure of outcome.

It is unclear why children exhibiting variance across parameters would demonstrate stronger presence of symptomatology over two years rather than one. One explanation might be that the families who chose to continue their involvement in the study were of greater impairment than those who dropped out. Influence of attrition rates on this thesis are discussed in greater detail in chapter seven. A second factor may be that as these analyses are conducted on a normative population, none of these families were

<sup>11</sup> CBCL: Child Behaviour Checklist

receiving treatment. Any impairment in functioning may have genuinely become more entrenched and difficult from year to year.

### *Conclusion*

This study has shown the HCAM manual to be sensitive to current functioning that might later manifest into diagnosable symptomatology, as measured by the CBCL. In addition to supporting the supposition that variability across domains of behaviour is within itself a sign of impairment, these studies continue to demonstrate the utility of the HCAM as a measure of current and future functioning.

## **6.4 SUMMARY**

This chapter investigated the relationship between the Hampstead Child Adaptation Measure and existing measures of childhood functioning. The measures chosen for this, as in previous studies, reflect the expanse of behaviour targeted in adaptation. The first study examined the relationship between the HCAM *Global score* and global measures of functioning, while the second study investigated specific domains of behaviour in relation to individual HCAM parameters. The third study used the mother's report of the child's internal state to demonstrate the capacity of the HCAM to assess aspects of functioning less observable by an outsider, beyond what is already established by a measure of symptomatology. Finally, the discriminatory power of the HCAM was determined in study four, and its sensitivity to risk of future impairment in study five.

Section 6.1 of this chapter discussed the types of validity represented, in particular, the suggested methods of investigations and the target outcome analyses. While correlations are the accepted route of investigation, the ideal measures and coefficients are less straightforward, needing to be considered in the context of the measure under scrutiny (Kline, 1993; Anastasi & Urbina, 1997). For example, the HCAM correlated strongly with measures of psycho-social functioning, such as measures of role performance, communication and peer relationships, but more modestly with measures of skill or specific diagnostic categories. This variation in relationships is also seen in previous chapters examining the between-parameters collations, which also varied in strength.



These variations are in themselves a test of validity, as less variation, or stronger correlations, would not reflect the target constructs intended (Cantwell, 1996).

It is also this sensitivity to qualitatively different styles of functioning, that is psycho-social versus symptomatic, that underlies the HCAM's capacity to distinguish between impaired and normative children. This is particularly true in light of the HCAM's capacity to discriminate between groups more sensitively than a measure of symptoms alone and its sensitivity to internal states, even when reported by an outside observer, beyond presenting symptomatology.

### *Conclusion*

The combined studies in this chapter have shown the HCAM to be a valid measure of children's adaptation. While the HCAM is predominantly a measure of psycho-social functioning, it is also sensitive to children's concurrent and future symptomatology. This combination offers a powerful and versatile tool in both research and clinic settings.

## DISCUSSION, CONCLUSIONS AND FUTURE DIRECTIONS

### CHAPTER SUMMARY

This thesis presented the development of the Hampstead Child Adaptation Measure (HCAM) in the context of existing psycho-social assessments appropriate for evidence-based clinical service and audit. The aim of this chapter is to discuss the success of this goal within the context of the strengths and limitations of the overall thesis. Summaries and investigative conclusions are presented for each of the six preceding chapters, followed by the conclusions drawn concerning the strengths and limitations of the HCAM as an assessment measure. The utility of the HCAM is then discussed in the context of contemporary issues of assessment with children and as a measure for evidence-based outcome research. Lastly, future directions and further work are presented.

### 7.1 LIMITATIONS OF THE CURRENT WORK

The combined analyses of the current work are meaningful only within the context of the methodological soundness of the overall design and administration of this thesis. Before discussing the particular conclusions drawn from the combined studies, the strengths and weakness of the overall work are outlined below.

#### 7.1.1 STRENGTHS OF THE CURRENT WORK

The strengths of the current study stem from a number of sources. The first relates to the original conceptualisation and purpose motivating the development of the HCAM, which was always intended to measure change due to treatment intervention. This enabled many of the traditional discrepancies between research-based and clinic-based assessment (see e.g. Weisz et al., 1995) to be addressed from the outset. For example, while the HCAM quantifies behaviour over 14 parameters, the conceptualisation of behaviours represented reflects presentation commonly seen in a clinic environment. Related to this issue is the HCAM as a developmentally sensitive measure, designed specifically for childhood. Many assessments in use with this age group have been downwardly adapted from adults, despite evidence that what is applicable to one age

group is not transferable to another (Shapiro, 1995). There is also a strong, continuing trend to reconceptualise assessment measures in terms of the developmental level of the target individuals (, 1995c; Morton & Frith, 1996; Shapiro, 1995; Weisz et al., 1995). The HCAM is firmly rooted in developmental norms emerging directly from Anna Freud's Developmental Lines and is designed specifically for children by experienced child professionals.

Other strengths of this study relate to the extensive standardisation of the measure on a normative sample of children. Many investigations of new assessment measures examine measurement effects only in relation to the immediately relevant population without regard to normative baselines (Jensen et al., 1996; Kazdin, 1996). Those that do include normative samples are often standardised on an American population, limiting the applicability in a British sample.

Lastly, many strengths of the current work focus predominantly on the inclusion of psychometric principles presented in previous chapters (e.g. five and six), particularly in relation to issues of reliability and validity. Development of previous assessment measures frequently falls short of these ideals (Achenbach, 1995c; Kazdin, 1996). Rather than relying on a single inter-rater reliability study and one measure of concurrent validity, the examination of the HCAM provided repeated restructuring of the manual in response to continued examination of reliability in different contexts. Validity was also comprehensive, using comparisons across a number of different approaches to children's functioning, measuring not only at a single time, but over a three year span.

### 7.1.2 LIMITATIONS OF THE CURRENT STUDY

Limitations of the current study are encountered in a few areas. The first relates to sample characteristics. For example, the whole of the analysis is conducted on an out-patient sample, leaving the most acute ranges of the manual untested. The potential suitability of the HCAM for these more disturbed ranges is discussed later in this chapter. The analyses on the sample presented may also be compromised as a result of the high attrition rate across three years, which may polarise or otherwise skew the results. Lastly, the ratio of boys to girls in the clinical sample is also skewed, with roughly two-thirds of

the sample being male. While this reflects ratios commonly occurring in clinics, the effect on subsequent results remains undetermined.

The most stringent criticisms of this thesis are the areas which remain unexamined; the lack of multi-informant validity and the unexamined sensitivity to treatment effectiveness of the prospective manual. While these investigations were initially intended in the research design, neither came to fruition due to limitations of time and scope of the current work. In particular, no single child from the referred group was engaged in therapy for more than six months, making even a single case study of sensitivity to therapeutic change inappropriate. As a result, only indirect evidence, that is, comparisons between reports of mother and child and stability over time as well as the retrospective manual, may be scrutinised.

This section outlined the strengths and limitations of the current thesis. The following section details the individual chapter studies and conclusions drawn, which should be understood within the context of the issues outlined above.

## **7.2 CHAPTER SUMMARIES**

The previous section outlined the strengths and limitations of this thesis. This section summarises the goals and analyses of the studies conducted individually in each of the preceding chapters, as well as conclusions drawn within the context of the overall work.

Chapter one presented developmental theories relevant to maturation in middle childhood. The first section briefly outlined the historical and contemporary perspectives, including Piagetian stage theory (Piaget, 1923) and attachment theorists (Cassidy & Shavaer, 1999). Later chapter sections outlined the characteristics of adaptive and maladaptive functioning for this age group, focusing on expected norms, for example frequent worries and fears (Ghate & Daniels, 1997) and common parental and child preoccupations, for example negotiating peer relationships (Hill & Tisdall, 1997).

Chapter two addressed the methodological issues affecting the assessment of this age group, given the difficulties and specific circumstances identified in chapter one. These

issues were discussed in the context of the increased need for service providers to quantify the mechanisms and processes through which various treatments operate and the impact of clinical intervention on maladaptive and adaptive functioning (Kazdin, 1994). Differing levels of assessment in behaviour, for example symptomatology and mechanistic functioning, were also presented, while strengths and limitations of existing measures for each level were discussed.

Chapter three introduced the HCAM manual, including the rationale for the development of a new measure and the intended goals. The retrospective manual was presented, detailing the process by which a single global score was reached, that is the consideration of 14 domains of functioning, as well as the successful investigation of inter-rater reliability and concurrent validity. Later sections in this chapter presented the development of a manual and interview protocol suitable for prospective studies. Detailed discussions with a group of mental healthcare professionals enabled the expansion of domains into stand-alone *parameters*, each rated individually along a 100 point scale. Acceptable preliminary reliability between raters with a normative sample of children was demonstrated.

Chapter four presented the final revisions to the HCAM prospective manual and protocol, based on a normative and clinically referred sample of children. These revisions focused on anchoring the rating scales with narrative examples and clinical vignettes for every 5 point interval, as well as detailed parameter introductions designed to focus the rater more finely toward individual targets. Finally, the characteristics of the internal structure of the manual and successful inter-rater reliability on a pilot sample were also presented.

Chapter five examined the psychometric properties of the HCAM, investigating the normative and referred sample separately as well as the combined group. Using procedures recommended by Foster & Cone (1995) and Kline (1993), independence from demographic variables, distribution characteristics, sound internal consistency and appropriate constructs demonstrated in a principal component analysis of parameter loadings were presented. Stability over time was also demonstrated using a test-retest sample over two months as well as a 12 month longitudinal follow-up over three years.

Chapter six concluded the investigation of the HCAM's validity with the introduction of concomitant measures of functioning assessing symptomatology, global adaptation, social adaptation and cognition, behavioural skills, and mood. In addition to concurrent and construct validity, discriminant validity of the HCAM was demonstrated, successfully predicting group membership of 94 and 83 percent of the normative and referred children respectively.

### **7.3 CONCLUDING STRENGTHS AND LIMITATIONS OF THE HCAM**

The combination of analyses represented in the summaries outlined above indicates a number of strengths and weaknesses to the psychometric soundness and functional utility of the HCAM assessment measure. A brief summary of these characteristics is presented below. More detailed discussion of these points follows in later sections, particularly in the context of the HCAM addressing the dual challenge of assessment in middle childhood (presented in chapter one) and requirements for outcome measures appropriate for evidence-based clinical service and audit (presented in chapter two).

#### **7.3.1 STRENGTHS OF THE HCAM MANUAL AND INTERVIEW PROTOCOL**

The collective investigations presented in this thesis demonstrate a number of areas in which the goals of this thesis were met. For example, by demonstrating improved reliability and validity over existing measures of adaptation, the retrospective manual was shown to be sensitive to change in therapy in a psychodynamic and pharmaco-behavioral clinical environment. The prospective manual also demonstrated considerable measurement strengths. The first of these related to development and design, beginning with the involvement and contribution of professionals from an educational, psychological, and psychiatric background, with both research and clinical experience. This grounding set the framework for a comprehensive and flexible manual, contextually sensitive and broadly appropriate. Additionally, the design of the associated interview protocol was experienced benignly by participants, independent of their child's impairment. Spontaneous comments concerning the pleasure of exploration and prompting towards reflective thought were a regular part of the interviewing experience.

Further strengths related to the relationship between child and manual characteristics. Examination of the combined sample demonstrated independence from demographic difficulties with all variables (age, sex, IQ, family constellation) and parameters except for *Relationship with adults* and employment status. Examining stability over time showed child ratings consistent across a 2-month test-retest and 3-year longitudinal follow-up study. Investigation of the internal structure of the manual demonstrated sensitivity to qualitative differences in functioning. For example, between-parameter correlation coefficients appropriately reflected the stronger relationship between *Capacity to cope with stress* and *Confidence and self-esteem* than between *Capacity to cope with stress* and *Relationship with siblings*. Also, the difference in factor loadings between the referred and normative sample highlighted the differences between, for example, *Sexual development* representing a private and internalised experience for the normative group, and one negatively impacting on peer and familial relationships in the referred sample.

Lastly, a number of strengths relating to the HCAM manual may be identified relating to established measures of childhood functioning. These analyses highlighted an emphasis on psycho-social aspects of adaptation, while sensitivity to instances of symptomatology was not compromised. By validating the manual on the widest range of behavioural constructs appropriate, the manual could again be compared and utilised in the broadest and most flexible context possible.

### 7.3.2 LIMITATION OF THE HCAM MANUAL AND INTERVIEW PROTOCOL

Alongside these strengths, a number of limitations were uncovered. Firstly, while participants reported pleasure in their involvement in the studies, the HCAM is undeniably a lengthy and costly assessment measure to use. In addition to the two to three hours required to administer and code each interview, there is also the cost involved in taping and transcribing the interview procedure. Secondly, although demographic variables were independent in the combined sample, splitting the group into individual referral status showed three parameters to be dependent upon age. In addition, the investigation of informant issues, although focused on the most difficult aspect of multi-informants, internally experienced mood, was limited and would need to be explored in more depth for the future.

The HCAM is also limited by the potential subjectiveness involved in rating. Presentation of behaviour is almost infinitely variable. While the HCAM manual deals with this by anchoring the rating of parameters with examples that could be generalised across behaviours, this is an imperfect solution. In addition to requiring a good deal of experience of children in a variety of contexts, the potential differences of interpretation between raters will always remain a potential obstacle. This subjectiveness highlights a further issue, that of universality. There are two issues influencing the generalisability of the HCAM: the utility of the more acute end of the scales with a severely disturbed population, discussed later, and the target behaviours and interpretations chosen to anchor the manual.

The target behaviours and interpretations chosen to anchor the manual are a product of the people and theoretical framework informing its development. An obvious example of this can be seen in the parameter *Secondary caregiver*. The same criteria used in *Primary caregiver* are used here, that is, time spent in joint activities, emotional availability and consistent responsibility. However, the rater is prompted to consider these demands more leniently with the secondary caregiver, acknowledging possible constraints on time and distance. This balance between caregivers may not be appropriate for all cultures, requiring either more or less leniency, and would need to be considered on an individual basis.

A less obvious example may be seen in the parameter *Play & hobbies*. In this parameter both sexes are expected to engage in some form of spontaneous and imaginative creativity, focused, sustained attention and physical activity. The basis of such expectations, where activities limited solely to education-oriented tasks would be considered less adaptive, and boys are expected to demonstrate pleasure in imaginative play, comes partly from culture, but more specifically from a view of child development directly influenced by a psychodynamic model. While this limits the universality of the HCAM, it also increases both its validity and utility, defining from the outset target principles and orientation. These sections have collectively outlined the studies investigated in this thesis, focusing on the concluding strengths and weaknesses of the HCAM manual within the context of the current thesis. The following sections present the utility of the HCAM within the context in which it aims to be used; firstly as an



assessment of functioning in middle childhood, and secondly as a measure of outcome in efficacy research.

#### **7.4 THE HCAM IN THE CONTEXT OF ASSESSING FUNCTIONING IN CHILDREN**

Although sensitive to other levels of functioning, as discussed by Fonagy (1997), the HCAM is predominantly a measure of psycho-social adjustment, particularly focused on adaptive and pro-social behaviour. Despite adaptive behaviour being linked to the successful achievement of cognitive and social goals (Bricker & Cripe, 1992; Werner & Smith, 1991; Williamson, Szczepanski & Zeitlin, 1993) as well as a sense of well-being and positive regard (Lipsky, 1985;), defining, recognising and cataloguing what constitutes adaptive behaviour remains an area of some debate (Garnezy & Masten, 1994; Greenspan, 1992; Zeitlin & Williamson, 1990). Much of this debate has centred on the establishment of causal and preventative factors to stress related impairment, identifying mediating variables related to adaptational differences. These include social support, cognitive processes and specific beliefs (Booth, Rubin & Rose-Krasnor, 1998; Pless & Stein, 1996); anxiety, positive affect, self-concept, physical health, locus of control (Compas & Hammen, 1996; Rutter 1983) and specific coping-related behaviours and personality characteristics (Murphy & Moriarty, 1976; Zeitlin, 1985).

Establishing these variables clearly offers professionals working with children an important structure within which vulnerable and resilient children may be identified and supported. However, it does not address the processes and mechanisms around which the behaviour is oriented, nor does it suggest potential pathways available to shift maladaptive strategies towards adaptive ones.

Rather than focusing on environmental and individual variables, the HCAM aims to identify the extent to which the child's behaviour demonstrates appropriate cognitive or behavioural strategies towards the management of daily activities. This implies a flexibility of approach, procurement of personal resources and negotiation between internal states and external situations.

This strategy is a conscious attempt to adopt the strongest characteristics of the two approaches and criticism towards child development as outlined in chapter one. For

example, the Traditional approach of quantifying behaviours related to age is reflected in the expectations outlined for each parameter and age, while the child's social context, age and gender are considered during coding. This recognition of context and culture specificity towards the HCAM is partly responsible for the strong face and content validity.

More specifically, each of the individual parameters is designed to target areas where inappropriate or mismanaged strategies might manifest as impaired behaviour. The sensitivity of individual parameters to qualitative differences in behaviour touches upon the identification of causal links between concrete behaviour and resulting adaptational style. While the child's environmental and individual variables may not be realistically altered, the approach to those variables may be, and the development of assessment measures capable of identifying those links would have significant implications (Morton & Frith, 1996). By including healthy as well as impaired functioning, the HCAM captures the broader and more subtle distinctions between normality and pathology. This focus separates the HCAM from existing measures of adaptation that are more oriented toward identifying specific behaviour associated with impairment (e.g. CAFAS) or a single global level of absolute functioning (e.g. GAF). These alternative measures are discussed in chapter two.

This approach concurs with other contemporary models of developmental assessment. For example, Sparrow and colleagues (1996) advocate a hierarchical approach to measurement, identifying the interaction between contexts and influences on the child's developing functioning and capabilities. Cantwell (1996) argues that theories of aetiology currently lack sufficient empirical basis and are under dispute from clinicians of different camps. More robust measures of functioning are required, focusing specifically on what can, and cannot, be distinguished between clinical conditions and normality. Achenbach (1995c) also emphasises this point, regarding the attainment of data clearly defining the features that discriminate between normality and pathology, and the knowledge of the developmental level of children, to be the most important aspects required for research in child pathology.

This section outlined the possible role of the HCAM within the developmental context of assessing functioning in children. The following section outlines the current issues in

outcome research, focusing specifically on the difficulties surrounding the appropriate choice of assessment tool.

## **7.5 THE HCAM IN THE CONTEXT OF OUTCOME ASSESSMENT**

Significant changes to the mental healthcare delivery system over the last decade in this country and others have placed an increasingly greater emphasis on the evaluation of services. In America this has been epitomised by two Task Force reports: the Division 12 Clinical Psychology Task Force on Promotion and Dissemination of Psychological Procedures (1995; Chambless, 1998) and the American Psychological Association Task Force on Psychological Intervention Guidelines (1995). In this country, Roth & Fonagy conducted a comprehensive review of 'What works for whom?' (Roth & Fonagy, 1997), addressing child and adolescent interventions. Given the reluctance of service providers to fund therapies without proven effectiveness, the design, validity and applicability of outcome assessment has developed into an engaging and provocative debate (see for example Garfield, 1996; 1998 and Chambless 1998).

A primary component of this debate has focused on optimising the scientific rigour with which outcome research is approached. For example, some researchers hold up the randomised control trial (RCT) as the 'gold standard' of evaluation research and argue that observational methods 'provide no useful means of assessing the value of therapy' (Doll, 1994 p.534). Others argue cogently against this (e.g. Fonagy, 1997; Fonagy & Higgitt, 1989; Garfield, 1996), focusing on the limitations of randomised controlled trials in comparison to observational methods, particularly in the assessment of children (see Black, 1996). A number of these issues are directly related to the choice of assessment measures and these are presented below.

There is emerging evidence that the effectiveness of psychotherapy in a research setting is significantly greater than in a clinic setting (Kendall & Southam-Gerow, 1995; Weisz & Weiss, 1989; Weisz et al., 1995), and while there is not yet sufficient evidence to reliably confirm the causes for this, it is possible that it is partly due to inadequate assessment (Fonagy, 1997). Research-based assessment measures tend to rely on quick, specifically focused and quantifiable means of measuring, usually relating solely to symptomatology. In contrast, clinic-based assessments are more diffuse, targeting issues relevant to further

therapeutic circumstances (Weisz & Weiss, 1995). The HCAM bridges this gap by designing the manual equally within a clinical and research environment. While the creation of the rating system adhered to quantitative methodology, the conceptualisation and utility integrated the diverse clinical approaches of a number of childcare specialists, piloted in 'real' situations of a working clinic.

Although research methodology has historically focused predominantly on the measurement of symptomatology, an increasing number of investigators, even in highly technical medical models, have acknowledged that the cessation of symptomatology cannot be considered the sole, or even the most important, criteria of an individual's improvement (Fonagy, 1997). Recent meta-analyses have also demonstrated that treatment evaluated solely with measures of symptomatology lead to a potentially misleading overestimation of the effect of the treatment, at least in terms of effect size (Weisz et al., 1995). To address this, a number of assessment models have been suggested to ensure the adequate breadth of information is captured during the measurement of outcome (e.g. Achenbach, 1995a; 1995b; Fonagy, 1997; Hoagwood et al., 1996). The identified level of functioning targeted by the HCAM is adaptation, the least represented domain of functioning, at least in terms of adequate assessment measures (Fonagy, 1997; Hoagwood et al., 1996). (For a detailed discussion of all five levels of functioning identified by Fonagy (1996) see chapter two).

A further issue which frequently emerges in the debate of outcome is that of manualisation of treatment. It is estimated that the number of treatment therapies currently on offer to children exceeds 200 (Kazdin, 1988). This number does not consider the different theoretical divergences within any given therapeutic style, nor the number of psychotherapists who consider themselves eclectic in approach (estimated between 20 and 68%) (Garfield, 1994). While validity issues surrounding operationalisation and standardisation of treatment provided are crucial to the measurement of outcome, it is the effect on measurement choice that is relevant in the current context.

The measure chosen to demonstrate the effectiveness of treatment must be compatible with the type of therapy under investigation. Emphasis on an integrationist approach (Garfield & Bergin, 1991; Goldfried, 1999) may well bring divergent therapies closer

together. There are already indications that cognitive therapies are becoming increasingly interested in non-conscious mental processes (Heard & Linehan, 1993; Safran & Segal, 1991; Strauman, 1992; Vitousek & Ewald, 1993), while contemporary psychodynamic therapists are concerned with the nature of knowledge representation and deficits in cognitive functions which could account for slow progress in treatment (Horowitz, 1995; Sandler, 1995; Westen & Cohenn, 1993). Chosen assessment measures must accommodate these shifting priorities without losing focus and structure of original construct targets, potentially compromising validity and rendering the collected information ineffectual. This is particularly crucial in the light of current trends towards meta-analyses, where vastly different design methodologies may be compared across studies. The development of a measure sensitively flexible to differing contexts of clinic and researched-based methodologies would greatly facilitate outcome research.

The HCAM aimed to address this issue firstly by incorporating the perspectives of a number of different approaches, and secondly by grounding rating on developmental norms. Adaptation is conceptualised along a continuum of behaviours, independent of descriptive categories. This allows researchers to identify differences according to particular psychological functioning and how these may predict responsiveness to treatment, regardless of treatment type or revision (Piper et al., 1991).

This section outlined the issues relevant to the choice of assessment measure in outcome research. (For a detailed discussion of the more general issues in outcome research see, for example, Chambless (1998); Chambless & Hollon (1998); Fonagy (1996); Garfield (1996); Goldfried & Wolfe (1996) and Kazdin (1993). Deliberation surrounding such issues as the ideal scientific ideology or application of treatment has prompted the reconceptualisation of historically held tenets. What has emerged is a growing awareness of the multi-factorial aspect of functioning and the need for a developmental perspective as well as a standardisation of service assessment. The HCAM has addressed these issues by maintaining a grounding in a variety of theoretical models, establishing clinical utility alongside psychometric properties and remaining focused on the psycho-social aspects of children's adaptive and maladaptive behaviour most likely to differentiate between normative and impaired functioning in children.

## **7.6 FUTURE DIRECTION AND FURTHER WORK**

While many issues have been answered by the current work, other questions and areas of investigation have presented themselves, all equally pressing and valid. This section outlines these possibilities and offers a potential structure for that exploration.

The HCAM was developed in response to the need for a psychometrically sound and developmentally sensitive assessment of childhood functioning that would measure change due to clinical intervention. While this thesis has addressed the majority of these goals, the last, sensitivity to change in behaviour due to therapy, remains. Examining this would require a larger study than the current work, and would need to include specific areas not explored in the previous chapters presented here.

### **7.6.1 INCLUSION OF AN IN-PATIENT SAMPLE**

The first of these would be investigating the complete range of coding represented in the HCAM manual. Because the current work excluded an out-patient sample, conclusions could not be drawn concerning the most severe levels of functioning characterised. Evidence demonstrated in the current study supporting the validity and reliability of the HCAM manual cannot be generalised to a more disturbed sample, nor is it clear if the HCAM is an appropriate assessment tool for the level of impairment that would be demonstrated at this range.

Two areas would need to be explored relating to this issue. The first addresses the same questions concerning the psychometric soundness of the manual at this range, paralleling those explored in chapters five and six of the current thesis. These questions would be investigated in the same way and with the same criteria outlined previously. The second returns to the issue of the HCAM manual's universality in the context of an out-patient sample. The HCAM was developed to be an instrument of change, and for some children scoring at these more acute levels, this may not be appropriate. For example, it is possible that some parameters may be associated with specific developmental disorders that may characterise this level of impairment, for example, autism or learning disabilities. For these children, a scale detailing current behaviours in more detail may be more appropriate, for example, the VABS (discussed earlier in chapter six) assesses age-appropriate skills such as addressing envelopes. Any further work investigating an

inpatient sample would need to examine the relevance of the HCAM for the population studied.

### 7.6.2 INCREASING THE NUMBER OF INFORMANTS

Although the current work explored the relationship between mother's perception of mood and child's reporting of anxiety and depression, this study was limited. It would be important for any future studies to continue this investigation by expanding the number and breadth of informants. The first priority of such a study would be to compare mother's report of the child's functioning with another informant reporting as closely on the same behaviour and in the same context as possible, for example, the child's father. The second priority would be to compare the child's reporting of their own behaviour with the mother's, particularly in relation to peer relationships.

As well as confirming the validation of the HCAM manual, increasing the number of informants would be required to fully represent the child's functioning in a variety of contexts. This is now a well-established criterion for good outcome research and should include as many different people in as many different environments as possible.

The inclusion of multi-informants may also include the development of parallel HCAM interview protocols. For example, an interview adapted towards older children or adolescents and teachers would be highly appropriate.

### 7.6.3 MEASURING CLINICAL INTERVENTION

The crucial characteristic of any future investigation would be the inclusion of pre-, mid- and post-treatment assessments. While the value of pre- and post-treatment measurement is self-evident, mid-treatment assessment is equally important. Outcome research with the sole purpose of demonstrating evidence of effectiveness for receipt of funding is concerned only with whether or not a child is seen to improve over time. However, there is a wider context under which treatment effectiveness is of interest. By measuring the fluctuations in treatment, conclusions may be reached concerning development over time, resilience, and other pathways shifting maladaptive to adaptive functioning.

#### 7.6.4 THE HCAM IN A CLINIC SETTING

Finally, there are two characteristics of the HCAM relating to a clinic setting to be considered. Firstly, the current format of the HCAM requires coding from transcription of audiotape, a lengthy, expensive and cumbersome procedure. A more streamlined version of the HCAM, collapsing and selecting the parameters demonstrating most utility, would allow interviewers to rate parameters immediately after the interviewing process, requiring only an additional ten to fifteen minutes. The current work has made significant progress in identifying these parameters and it is envisioned that the overall manual could be reduced from fourteen parameters to five or six. Secondly, qualitative experiences and informal feedback from families has shown the HCAM to be a positive learning experience for parents. The comprehensive approach, detailing adaptive as well as maladaptive behaviours, created an environment where parents were able to think about their children in new and appreciated ways. It is possible that the experience of interviewing, particularly at intervals during outcome research, could be included in the therapeutic process.

This section outlined possible areas of investigation indicated by the studies presented in the current work. Particular issues concerning sample characteristics, informant validation, and frequency of assessment were addressed, in part to continue the exploration of the HCAM manual and in part to ensure rigorous methodological standards for a large-scale outcome study.

### 7.7 CONCLUSION

This chapter outlined the goals and conclusions drawn from the combined studies in this thesis. Strengths and limitations were outlined within the context of the current thesis design and execution. Future directions were suggested as indicated by the current work, and a possible structure for how this might be accomplished was outlined.

The aim of this thesis was to develop an assessment measure designed specifically for children by a wide range of child experts, a measure that would bridge the gap between research and clinic-based evaluation. Specifically, to be developmentally sensitive, relevant to presenting referral behaviours, psychometrically sound and suitable for outcome research. Although the current work has raised many avenues for future



exploration, the collective studies presented have demonstrated the Hampstead Child Adaptation Measure to fulfil the majority of requirements targeted.

Achenbach, T. M. (1991a). Manual for the Child Behavior Checklist/4-18 and 1991 Profile. Burlington, University of Vermont Department of Psychiatry.

Achenbach, T. M. (1991b). Manual for the Teacher's Report Form and 1991 Profile. Burlington, University of Vermont Department of Psychiatry.

Achenbach, T. M. (1995a). "Diagnosis, Assessment, and Comorbidity in Psychosocial Treatment Research." Journal of Abnormal Child Psychology 23(1): 45-65.

Achenbach, T. M. (1995b). "Empirically Based Assessment and Taxonomy: applications to Clinical Research." Psychological Assessment 7(1): 261-274.

Achenbach, T. M. (1995c). Empirically based assessment and taxonomy: Applications to clinical research. Psychological Assessment, 7(3), 261-274.

Achenbach, T. & Edelbrock, C. S. (1978). "The classification of child psychopathology: A review and analysis of empirical efforts." Psychological Bulletin 85: 1275-1301.

Achenbach, T. M. & Edelbrock, C. S. (1983). Manual for the Child Behaviour Checklist and Revised Child Behaviour Profile. Burlington, VT, Achenbach, Thomas, A.

Achenbach, T. M., McConaughy, S. H., & Howell, C. T. (1992). "Child/adolescent behavioral and emotional problems: Implications of cross-informant correlations for situational specificity." Psychological Bulletin 101: (213-232).

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). Patterns of Attachment: A psychological study of the Strange Situation. Hillsdale, New York. Erlbaum Associates.

Alaja, R., Tienari, P., Seppae, K., Tuomisto, M., Leppaeuori, A., Huyse, F.J., Herzog, T., Malt, U.F., Lobo, A. (1999). Patterns of Comorbidity in Relation to Functioning (GAF) among General Hospital Psychiatric Referrals. Acta Psychiatrica Scandinavica. Vol99(2), 135-140

American Psychiatric Association (1987). Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R). Washington, American Psychiatric Association.

American Psychiatric Association (1994). Diagnostic and statistical manual of mental disorders. Washington, DC, Author.

Anastasi, A. (1993). A century of psychological testing: origins, problems and progress. In Exploring applied psychology: Origins and critical analyses. Fagan, T.K., Vandenbos, G.R et al., (Ed). Washington, American Psychological Association.

Anastasi, A., and Urbina, S. (1997). Psychological Testing. Upper Saddle River, New Jersey, Prentice-Hall, Inc.

Anastopoulos, A. D., Barkley, R. A., et al. (1996). Family-based treatment: Psychosocial intervention for children and adolescents with attention deficit hyperactivity disorder. Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice. E. D. Hibbs & P. S. Jensen. Washington, DC, American Psychological Association: 267-284.

Anderson, J. C., Williams, S., et al. (1987). "DSM-III disorders in preadolescent children: Prevalence in a large sample from the general population." Archives of General Psychiatry 44: 69-76.

Angleitner, A., and Riemann, R. (1991). What can we learn from the discussion of personality questionnaires for the construction of temperament inventories? In Explorations in temperament: international perspectives on theory and measurement. Strelau, J. (Ed). New York, Plenum Press.

Angold, A. (1989). Structured assessments of psychopathology in children and adolescents. Chichester, England UK, John Wiley & Sons.

Bandura, A. (1962). Social learning through imitation. Nebraska Symposium on Motivation. M. R. Jones. Lincoln, University of Nebraska Press.

Bandura, A. L. (1969). Principles of Behaviour Modification. New York, Holt, Reinhart & Winston.

Bandura, A. (1977). Social Learning Theory. Englewood Cliffs, NJ, Prentice-Hall.

Bandura, A. (1986). Social Learning Theory. Englewood Cliffs, NJ, Prentice-Hall.

Barkley, R. A. (1981). Hyperactive Children: A handbook for diagnosis and treatment. New York, Guilford.

Barnett, R. J., Docherty, J. P., et al. (1991). "A review of psychotherapy research since 1963." Journal of the American Academy of Child and Adolescent Psychiatry 30: 1-14.

Barr, R. G., Boyce, W. T., and Zeltzer, L. K. (1996). The stress-illness associations in children: A perspective from the bio-behavioral interface. Stress, Risk and Resilience in Children and Adolescents. R. J. Haggerty, Sherrod, L. R., Garmezy, N., and Rutter, M. London, Cambridge University Press.

Barrett, C. J., Hampe, I. E. & Miller, L.C. (1978). Research on child psychotherapy. In S. G. Garfield & A. E. Bergin (Eds) Handbook of Psychotherapy and Behavior Change (2nd ed.), New York: Wiley.

Barnett, R. J., Docherty, J. P. & Frommelt, G. M. (1991). "A review of psychotherapy research since 1963." Journal of the American Academy of Child and Adolescent Psychiatry 30: 1-14.

Bate, L. M. (1994). Information for the health outcome indicators: Outcome briefing: Viewpoints. Leeds, UK Clearing House on Health Outcomes.

Beck, A. T. (1976). Cognitive therapy and the emotional disorders. New York, International Universities Press / Meriden.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). "An Inventory for measuring depression." Archives of General Psychiatry 4: 561-71.

Bee, H. (1995). The Developing Child. New York, Harper Collins.

Berndt, T., & Keefe, K. (1995). "Friend's influence on adolescents adjustment to school." Child Development 66: 1312-1329.

Bernstein, G. A. & Garfinkel, B. D. (1986). "School phobia: The overlap of affective and anxiety disorders." Journal of the American Academy of Child Psychiatry 25: 235-241.

Berti, A. E., & Bombi A. S. (1988). The Child's Construction of Economics. Cambridge, England, Cambridge University Press.

Beutler, L.E. & Howard, K. (1998). Clinical Utility Research: an introduction. Journal of clinical Psychology. Vol 54(3), 297-301.

Biederman, J., Faraone, S. V., Doyle, A., Lehman, B. K., Kraus, I., Perrin, J., & Tsuang, M. T. (1993). "Convergence of the Child Behavior Checklist with structured interview-based psychiatric diagnoses of ADHD with and without comorbidity." Journal of Child Psychology & Psychiatry 34: 1241-1251.

Bigelow, B. J., Tesson, G., & Lewko, J. H. (1996). Learning the Rules. New York, Guilford Press.

Bird, H. R., Canino, G., Rubio-Stipec, M., Gould, M. S., Ribera, J., Sesman, M., Woodbury, M., Huertas-Goldman, S., Pagan, A., Sanchez-Lacy, & A., Moscoso, M. (1988). "Estimates of the prevalence of childhood maladjustment in a community survey of Puerto Rico: the use of combined measures." Archives of General Psychiatry 45: 1120-26.

Bird, H., Canino, G., Rubio-Stipec, M. & Ribera, J. (1987). "Further measures of the psychometric properties of the Children's Global Assessment Scale (CGAS)." Archives of General Psychiatry 44: 821-824.

Bird, H. R., Yager, T.J., Staghezza, B., Gould, M. S., Canino, G. & Rubio-Stipec, M. (1990). "Impairment in the Epidemiological Measurement of Childhood Psychopathology in the Community." Journal of the American Academy of Child and Adolescent Psychiatry 29: 796-803.

Black, N. (1996). "Why we need observational studies to evaluate the effectiveness of health care." British Medical Journal 312: 1215-1218.

Bolles, R. C. (1974). Cognition & motivation: Some historical trends. Cognitive views of human motivation. B. Weiner. New York, Academic Press.

Bond, C. R. & McMahon, R. J. (1984). "Relationships between marital distress and child behaviour problems, maternal personal adjustment, maternal personality, and maternal parenting behaviour." Journal of Abnormal Psychology 93: 348-351.

Booth, C.L., Rubin, K.H., Rose-Krasnor, L. (1998). Perceptions of Emotional Support from Mother and Friend in Middle Childhood: links with social-emotional adaptation and pre-school attachment security. Child Development. Vol69(2), 427-442.

Borland, M., Laybourn, M.H., Brown, J. (1998). Middle Childhood: The perspectives of Children and Parents. London and Philadelphia, Jessica Kingsley Publishers.

Bowlby, J. (1969). Attachment and Loss, Vol. 1: Attachment. London, Hogarth Press and the Institute of Psycho-Analysis.

Bowlby, J. (1973). Attachment and Loss, Vol. 2: Separation: Anxiety and Anger. London, Hogarth Press and Institute of Psycho-Analysis.

Bowlby, J. (1982). "Violence in the family as a disorder of the attachment and caregiving system." Journal of the American Psychoanalytic Association 44: 9-27, 29-31.

Boyle, M. H., Offord, D. R., et al. (1996). "Identifying Thresholds for Classifying Childhood Psychiatric Disorder: Issues and Prospects." Journal of the American Academy of Child and Adolescent Psychiatry 35(11): 1440-1448.

Boyle, M. H., Offord, D. R., Racine, Y. A., Szatmari, P., Sanford, M., & Fleming, J. E. (1997). "Adequacy of interviews Vs checklists for classifying childhood psychiatric disorder based on parent reports." Archives of General Psychiatry 54: 793-799.

Bretherton, I. (1985). "Attachment theory: Retrospect and prospect." Monographs of the Society for Research in Child Development 50(1-2): 3-35.

Bretherton, I., Ridgeway, D. & Cassidy, J. (1990). Assessing internal working models of the attachment relationship: An attachment story completion task. Attachment in the Pre-school Years: Theory, Research and Intervention. M. T. Greenberg, D. Cicchetti & E. M. Cummings. Chicago, University Chicago Press: 273-308.

Bricker, D., & Cripe, J. J. W. (1992). An activity-based approach to early intervention. Baltimore, Paul H. Brookes Publishing Co.

Brown, J. (1987). "A review of meta-analyses conducted on psychotherapy outcome research." Clin. Psychol. Rev. 7: 1-23.

Burman, E., (1994). Deconstructing Developmental Psychology. London, Routledge.

Cantwell, D. (1988). DSM-III studies. Assessment and diagnosis in child psychopathology. M. Rutter, A. H. Tuma & I. S. Lann. New York, Guilford Press: 3-36.

Cantwell, D. P. (1996). "Classification of Child and Adolescent Psychopathology." Child Psychology and Psychiatry 37(1): 3-12.

Cantwell, D. P. & Rutter, M. (1994). Classification: conceptual issues and substantive findings. Child and Adolescent Psychiatry: Modern Approaches. M. Rutter, E. Taylor & L. Hersov. Oxford, England, Blackwell Scientific Publications: 3-21.

Casey, R. J. & Berman, J. S. (1985). The outcome of psychotherapy with children. Psychological Bulletin 98: 388-400.

Cassidy, J. and Shaver, P. R. (Ed) (1999). Handbook of attachment: Theory, research, and clinical applications. New York, The Guilford Press.

Cattell, R. B., (1979). Personality and learning theory: Vol i. The structure of personality and its environment. New York: Springer.

Chambless, D., Baker, M. J., Baucom, D. H., Beutler, L. E., Calhoun, K. S., Crits-Cristoph, P., Daiuto, A., DeRubeis, R., Detweiler, J., Haaga, D. A. F., Johnson, S. B., McCurry, S., Mueser, K. T., pope, K. S., Sanderson, W. C., Shoham, V., Stickle, T., Williams, D. A., (1998). "Update on empirically validated therapies II." Clinical Psychologist 51: 3-13.

Chambless, D., Hollon, S.D. (1998). Defining Empirically Supported Therapies. Journal of Consulting and Clinical Psychology. Vol. 66(1), 7-18.

Children's Defence Fund. (1990). S.O.S. America! A children's defence budget. Washington D. C., Children's Defence Fund.

Chronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 297-334.

Cicchetti, D. (1990). A historical perspective on the discipline of developmental psychology. Risk and protective factors in the development of psychopathology. J. Rold, A. Master, D. Cicchetti, K. Neuchterlein & S. Weintraub. New York, Cambridge University Press: 2-28.

Clark, D. C., Pynoos, R. S., & Goebel, A. E. (1996). Mechanisms and processes of adolescent bereavement. Stress, Risk and Resilience in Children and Adolescents. R. J. Haggerty, Sherrod, L. R., Garnezy, N., & Rutter, M. London, Cambridge University Press.

Clark, H. B., Prange, M. E., et al. (1994). "Improving adjustment outcomes for foster children with emotional and behavioral disorders: Early findings from a controlled study on individualized services." Journal-of-Emotional-and-Behavioral-Disorders Vol 2(4)(Oct): 207-218.

Clark, D.C., & Watson, P.M., (1995). A psychometric perspective on psychophysiological measures. Psychological Assessment, 7(3), 387-395.

Cole, M., & Cole, S. R. (1989). The Development of Children. New York, Scientific.

Compas, B. E., & Hammen, C. L. (1996). Child and adolescent depression: Covariation and comorbidity in development. Stress, Risk and Resilience in Children and Adolescents. R. J. Haggerty, Sherrod, L. R., Garnezy, N., & Rutter, M. London, Cambridge University Press.

Cooper, A. M. & R. Michels (1988). "Review of Diagnostic and Statistical Manual of Mental Disorders." American Journal of Psychiatry 145: 1300-1301.

Costello, E. J. (1982). Clinical Decision Making in Child Psychiatry. Journal of the American Academy of Child Psychiatry, Washington, DC.

Costello, E. J. & Edelbrock, C. S. (1985). "Detection of psychiatric disorders in paediatric primary care: a preliminary report." Journal of the American Academy of Child Psychiatry 24: 771-774.

Cowen, E. L., Wyman, P. A., et al. (1990). "The Rochester Child Resilience Project: Overview and summary of first year findings." Development and Psychopathology 2: 193-212.

Cox, J.L. (1994). Perinatal Psychiatry: East is East and West is West. British Journal of Psychiatry. Vol 164, 420.

- Cox, M. V. (1980). Are Young Children Egocentric? London, Batsford.
- Crain, W., (1992). Theories of Development: concepts and applications. Englewood Cliffs, New Jersey: Prentice Hall.
- Dahl, E. K., Cohen, D. J., & Provence, S. (1986). "Clinical and multivariate approaches to nosology of pervasive developmental disorders." Journal of the American Academy of Child Psychiatry 25: 170-180.
- Dember, W. N. (1974). "Motivation and the cognitive revolution." American Psychologist 29: 161-168.
- Department of Health (1989). Working for patients. London, HMSO.
- Department of Health (1993). Managing the New NHS. The White Paper on the Government's Proposals Following it's Review of the NHS. London, HMSO.
- Dill, D. L., Eisen, S.V. & Grob, M.C. (1989). "Validity of record ratings of the global assessment scale." Comprehensive Psychiatry 30(4): 320-323.
- Distler, L. S., May, P.R., & Tuma, A.H. (1964). "Anxiety and ego strength as predictors of response to treatment in schizophrenic patients." Journal of Consulting Psychology 28: 170-177.
- Doepfner, M., Berner, W. et al. (1995). Internal consistency and validity of the CBCL and TRF in a German sample: a cross-cultural comparison. Eunethydis: European Approaches to Hyperkinetic Disorder. J. Sergeant. Universiteit van Amsterdam, Zurich, Fotorotar: 51-81.
- Doll, R. (1994). "Summation of conference, Doing more good than harm: The evaluation of health care interventions." American New York Academy of Science 705: 313.
- Dollard, J., & Miller, N. E. (1950). Personality and Psychotherapy. New York, McGraw-Hill.
- Donabedian, A. (1982). Explorations in quality assessment and monitoring. The Criteria and Standards of Quality. Michigan, Health Administration Press.
- Donaldson, M. (1978). Children's Minds. London, Fontana Press.
- Dunst, C. J., & Gallagher, J. L. (1983). Piagetian approaches to infant assessment. Topics in Early Childhood Special Education, 3, 44-62.
- Durlak, J. A. & Wells A. M. (1997). "Primary prevention mental health programs for children and adolescents: A meta-analytic review." American Journal of Community Psychology 25: 115-152.
- Edelbrock, G. & Costello A. J. (1988). "Convergence between statistically derived behavior problem syndromes and child psychiatric diagnoses." Journal of Abnormal Child Psychology 16: 219-231.
- Edelbrock, C. & Rancurello M. D. (1985). "Childhood hyperactivity: An overview of rating scales and their applications." Clinical Psychology Review 5: 429-445.

Edwards, A.L, and Klockars, A.J. (1981). Significant others and self-evaluation: Relationships between perceived and actual evaluations. *Personality and Social Psychology Bulletin*. Vol 7(2), 244-251.

Eisenberg, N., & Mussen, P. H. (1989). The roots of prosocial behavior in children. Cambridge, England, Cambridge University Press.

Elander, J., & Rutter, M. (1996). "An update on the status of the Rutter Parents' and Teachers' Scales." Child Psychology and Psychiatry Review 1: 31-35.

Endicott, J., & Spitzer, R. L. (1978). "A diagnostic interview: The Schedule for Affective Disorders and Schizophrenia." Archives of General Psychiatry 35: 837-844.

Endicott, J., Spitzer, R.L., Fliess, J.L. & Cohen, J. (1976). "The Global Assessment Scale: A procedure for measuring overall severity of psychiatric disturbance." Archives of General Psychiatry 33: 766-771.

Erikson, E. H. (1963). Childhood and Society. New York, W. W. Norton & Co.

Erwin, P. (1992). Friendship and Peer Relations in Children. Chichester, Wiley.

Ezpeleta, L., de la Osa, N., Domenech, J. M., Navarro, J. B., Losilla, J. M., & Judez, J. (1997). "Diagnostic agreement between clinicians and the Diagnostic Interview for Children and Adolescents - DICA-R- in an outpatient sample." Journal of Child Psychology and Psychiatry 38(4): 431-440.

Flavell (1963). The Developmental Psychology of Jean Piaget. Princeton, NJ, Van Nostrand.

Fonagy, P. (1989). "On the integration of psychoanalysis and cognitive behaviour therapy." British Journal of Psychotherapy 5: 557-563.

Fonagy, P. (1996). "The future of an empirical psychoanalysis." British Journal of Psychotherapy 13: 106-118.

Fonagy, P. (1997). "Evaluating the effectiveness of interventions in child psychiatry." The Canadian Journal of Psychiatry 42(6): 584-593.

Fonagy, P. & Higgitt, A. (1989). "Evaluating the performance of departments of psychiatry." Psychoanalytic Psychotherapy 4: 121-153.

Fonagy, P., Kachele, H., et al. (1999). An open door review of outcome studies in psychoanalysis. London, International Psychoanalytical Association: 320.

Fonagy, P. & Target, M. (1994). "The efficacy of psychoanalysis for children with disruptive disorders." Journal of the American Academy of Child and Adolescent Psychiatry 33: 45-55.

Fonagy, P. & Target, M. (1995). "Clinical implications of the retrospective study of child psychoanalysis and psychotherapy at the Anna Freud Centre." <None Specified>.



Fonagy, P. & Target, M. (1996). "Predictors of outcome in child psychoanalysis: A retrospective study of 763 cases at the Anna Freud Centre." Journal of the American Psychoanalytic Association 44: 27-77.

Fonagy, P., Target, M., Steele, H., Steele, M., Charman, T. & Ensink, K. (Unpublished Manuscript). The Affect Task Manual, The Anna Freud Centre/University College London.

Foster, S. L., & Cone, J. D. (1995). "Validity issues in clinical assessment." Psychological Assessment 7: 248-260.

Fournet, D. L., Wilson, K. L., Wallander, J. L. (1998). "Growing or Just Getting Along? Technical & Adaptive Competence in Coping among Adolescents." Child Development 69(4): 1129-1144.

Freud, A. (1963). "The concept of developmental lines." The Psychoanalytic Study of the Child 18: 245-265.

Freud, A. (1965). Normality and pathology in childhood. Harmondsworth, Penguin Books Ltd.

Freud, S. (1908). "Civilized" sexual morality & modern nervous illness. The standard edition of the complete psychological works of Sigmund Freud. J. Strachey. London, Hogarth Press. 9: 177-204.

Friedlander, S., Weiss, D. S. et al. (1986). "Assessing the influence of maternal depression on the validity of the Child Behaviour Checklist." Journal of Abnormal Child Psychology 14: 123-134.

Garfield, S. L. (1991). "Common and specific factors in psychotherapy." Journal of Integrative and Eclectic Psychotherapy 10: 5-13.

Garfield, S. L. (1996). "Some problems associated with "validated" forms of psychotherapy." Clinical Psychology: Science and Practice 3.

Garfield, S. L. & Bergin, A. E. (1994). Introduction and historical overview. Handbook of Psychotherapy and Behaviour Change. A. E. Bergin and S. L. Garfield. New York, Wiley.

Garmezy, N. & Masten, A. (1994). Chronic Adversities. Child and Adolescent Psychiatry: Modern Approaches. M. Rutter, E. Taylor & L. Hersov. Oxford, Blackwell Scientific Publications: 191-208.

Garmezy, N. & Rutter, M. (1983). Stress, Coping, and Development in Children. New York, McGraw-Hill.

Garralda, M. E. (1994). Primary care Psychiatry. Child and Adolescent Psychiatry: Modern Approaches. M. Rutter, Taylor, and Hersov, L. Oxford, Blackwell.

Geddes, J., Reynolds, S., Streiner, D., Szatmari, P., & Haynes, B. (1998). "Evidence-based practice in mental health." Evidence-Based Mental Health 1: 4-5.

Gessel, A. (1945). The Embryology of Behaviour. New York, Harper & Row.

Gessel, A. (1946). The ontogenesis of infant behaviour. New York: Harper & Row.

Ghate, D., and Daniels, A. (1997) Talking about MY Generation. London: NSPCC

Goldfried, M.R. (1999). A participant-observer's perspective on psychotherapy integration. Journal of Psychotherapy Integration. Vol 9(3), 235-242.

Goldfried, M. R. & Wolfe B. E. (1996). "Psychotherapy practice and research: Repairing a strained alliance." American Psychologist 51: 1007-1016.

Goodwin, D. W. & Guze, S. B. (1979). Psychiatric Diagnosis. New York, Oxford University Press.

Gore, S. and Eckenrode, J. (1996). Context and process in research on risk and resilience. In Stress, risk and resilience in children and adolescents: processes, mechanisms, and interventions. Haggerty, R.J. (Ed). New York, Cambridge University Press.

Gould, M. S., Bird, H. R., & Jaramillo, B. S. (1993). "Correspondence between statistically derived problem syndromes and child psychiatric diagnoses in a community sample." Journal of Abnormal Child Psychology 21: 287-313.

Graham, P. J. (1993). "Treatment of child psychiatric disorders: Types and evidence for effectiveness." International Journal of Mental Health 22: 67-82.

Greenspan, S. (1982). The second other. Father and Child: Developmental and Clinical Perspectives. S. Cath, A. Gurwitt and J. Ross. Boston, Little Brown: 123-139.

Greenspan, S. I. (1992). Infancy and Early Childhood: The Practice of Clinical Assessment and Intervention with Emotional Developmental Challenges. Madison, CT, International Universities Press.

Hanna, G. L. (1995). "Demographic and clinical features of obsessive-compulsive disorder in children and adolescents." Journal of the American Academy of Child and Adolescent Psychiatry 34(1)(Jan): 19-27.

Happe, F. G. E. (1994). "An advanced test of theory of mind: Understanding of story characters' thoughts and feelings by able autistic, mentally handicapped and normal children and adults." Journal of Autism and Developmental Disorders 24: 129-54.

Harter, S. (1985a). Manual for the Self Perception Profile for Children (revision of the Perceived Competence Scale for Children). University of Denver.

Harter, S. (1985b). Manual for the Social Support Scale for Children. University of Denver.

Heard, H. L. & Linehan, M. M. (1993). The Self in Emotional Distress: Cognitive and Psychodynamic Perspectives. Z. V. Segal & S. J. Blatt. New York and London, The Guilford Press: 301-325.

Heard, H. L. & Linehan, M. M., (1993). The Self in Emotional Distress: Cognitive and Psychodynamic Perspectives. Z. V. Segal and S. J. Blatt. New York and London, The Guilford Press: 301-325.

Heinicke, C. M. & Strassman, L. H. (1975). "Toward more effective research on child psychotherapy." Journal of the American Academy of Child and Adolescent Psychiatry 4: 561-588.

Herjanic, B., & Campbell, W. (1977). "Differentiating psychiatrically disturbed children on the basis of a structured interview." Journal of Abnormal Child Psychology 5: 127-134.

Hewitt, L. E., & Jenkins, R. L. (1946). Fundamental patterns of maladjustment: The dynamics of their origin, Springfield, IL: State of Illinois.

Hibbs, E. D., & Jensen, P. S. (1996). Analyzing the research: What this book is about. E. D. Hibbs, & Jensen, P. S.

Hill, M., Laybourn, A. and Borland, M. (1995) Children's Well-Being. Report to the Health Education Board for Scotland University of Glasgow

Hill, M., and Tisdall, K. (1997) Children and Society. Harlow: Longman

Hiller, W., von-Bose, M., Dichtl, G. & Agerer, D. (1990). "Reliability of checklist-guided diagnoses for DSM-III-R affective and anxiety disorders." Journal of Affective Disorders 20(4): 235-247.

Hinshaw, S. P. (1994). Attention deficits and hyperactivity in children. Thousand Oaks, CA, Sage.

Hoagwood, K., Jensen, P.S., Petti, T., & Burns, B.J. (1996). "Outcomes of mental health care for children and adolescents: I. A comprehensive conceptual model." Journal of the American Academy of Child and Adolescent Psychiatry 35: 1055-1063.

Hodges, K. (1995). The Child and Adolescent Functioning Assessment Scale, University of Washington.

Hoffman, L. (1993). "An introduction to child psychoanalysis." Journal of Clinical Psychoanalysis 2: 5-26.

Hog, R.D., Andrews, D.A., Leschied, A.W. (1996) An investigation of risk and protective factors in a sample of youthful offenders. Journal of Child Psychology and Psychiatry and Allied Disciplines. Vol 37(4), 419-424.

Holcomb, W. R. & Otto, R. L. (1988). "Concurrent validity of the Global Assessment Scale: What's in a number?" Psychol. Rep 62: 279-282.

Holmes, T.H. and Rahe, R.H. (1967). The social readjustment rating scale. Journal of Psychosomatic Research. Vol 11(2), 213-218.

Hulley, J.B. & Cummings, R. (1988). Designing clinical research. Baltimore, Williams & Wilkins.

Jacobson, N. & Truax, P. (1991). "Clinical significance: A statistical approach to defining meaningful change in psychotherapy research." Journal of Consulting and Clinical Psychology 59: 12-19.

Jenkins, R. L. & Glickman, S. (1946). "Common syndromes in child psychiatry: I. Deviant behavior traits. II. The schizoid child." American Journal of Orthopsychiatry 16: 244-261.

Jensen, P. S. & Hoagwood, K. (1997). "The book of names: DSM-IV in context." Devilment and Psychopathology 9: 231-249.

Jensen, P. S., Hoagwood, K., et al. (1996). "Outcomes of mental health care for children and adolescents: II. Literature review and application of a comprehensive model." Journal of the American Academy of Child and Adolescent Psychiatry 35: 1064-1077.

Jensen, P. S., Salzberg, A. D., et al. (1993). "Scales, diagnoses, and child psychopathology: I. CBCL and DISC relationships." Journal of the American Academy of Child and Adolescent Psychiatry 32: 397-406.

Kasius, M. C., Ferdinand, R. F., Van den Berg, H., & Verhulst, F. C. (1997). "Associations between Different Approaches for Child and Adolescent Psychopathology." Journal of Child Psychology and Psychiatry 38(6): 625-632.

Kazdin, A. E. (1985). Treatment of Antisocial Behavior in Children and Adolescents. Homewood, IL, Dorsey Press.

Kazdin, A. E. (1988). Child psychotherapy: Developing and identifying effective treatment. New York, Pergamon Press.

Kazdin, A. E. (1990). Premature termination from treatment among children referred for antisocial behavior. J. Child. Psychol. Psychiat., 31: 415-425.

Kazdin, A. E. (1993). "Evaluation in Clinical Practice: Clinically Sensitive and Systematic Methods of Treatment Delivery." Behavior Therapy 24: 11-45.

Kazdin, A. E. (1994). Psychotherapy for children and adolescents. Handbook of Psychotherapy and Behaviour Change. A. E. Bergin and S. L. Garfield. New York, Wiley: 543-594.

Kazdin, A. E. (1995). "Child, parent, and family dysfunction as predictors of outcome in cognitive-behavioural treatment of antisocial children." Behavioural Research and Therapy 33: 271-281.

Kazdin, A. E. (1996). Developing effective treatments for children and adolescents. Psychosocial Treatments for Child Adolescent Disorders. E. D. Hibbs, & Jensen, P. S.

Kazdin, A. E., D. Bass, et al. (1990). "Cognitive behavioral treatment and relationship therapy in the treatment of children referred for antisocial behavior." Journal of Consulting and Clinical Psychology 58: 76-85.

Kazdin, A. E. & Heidish, I.E. (1984). Convergence of clinically derived diagnoses and parent checklists among inpatient children. Journal of Abnormal Child Psychol., 12: 421-436.

Kendall, P. C., Ed. (1991). Child and Adolescent Therapy: Cognitive-Behavioral Procedures. New York, Guilford Press.

Kendall, P. C. & Southam-Gerow, M. A. (1995). "Issues in the transportability of treatment: The case of anxiety disorders in youths." Journal of Consulting and Clinical Psychology 63: 702-708.

Kernberg, O., Burnstein, E., Coyne, L., Appelbaum, A., Horowitz, L., & Voth, H. (1972). Psychotherapy and psychoanalysis - The final report of the Menninger Foundation's Psychotherapy Research Project. Bull. Menninger Clin., 36: 1-275.

Klein, D. N., & Riso, L. P. (1993). Psychiatric disorders: Problems of boundaries and comorbidity. Basic Issues in Psychopathology. C. G. Costello. New York, Guildford Press.

Kline, P. (1993). The Handbook of Psychological Testing. New York, Routledge.

Kohlberg, L. (1958). The Development of Modes of Thinking and Choice in the Years 10 to 16. Chicago, University of Chicago.

Kohlberg, L. (1964). Development of moral character and moral ideology. Review of Child Development Research. M. L. Hoffman, and Hoffman, L. W. New York, Russell Sage Foundation. 1.

Kovacs, M., Feinberg, T.C., Crouse-Novak, M. A., Paulauskas, S. L. & Finkelstein, R. (1984a). "Depressive disorders in childhood. I. A longitudinal prospectus study of characteristics and recovery." Archives of General Psychiatry 41: 229-237.

Kraemer, H. (1981). "Coping strategies in psychiatric clinical research." Journal of Consulting and Clinical Psychology 49: 309-319.

Kraepelin, E. (1892). Über die Beeinflussung einfacher psychischer Vorgänge durch einige Arzneimittel. Jena: Fischer.

Kuder, G.F., & Richardson, M.W. (1937) The theory of estimation of test reliability. Psychometrika, 2, 151-160.

Lambert, J., & Hill, C. E. (1994). Assessing psychotherapy outcomes and processes. Handbook of Psychotherapy and Behaviour Change. A. E. Bergin, & Garfield, E. D. New York, John Wiley: 72-113.

Lazare, A. (1973). "Hidden conceptual models in clinical psychiatry." New England Journal of Medicine 288: 345-350.

Levitt, E. E. (1957). "The results of psychotherapy with children: an evaluation." Journal of Consulting Psychology 21: 186-189.

Levitt, E. E. (1963). "Psychotherapy with children: A further evaluation." Behaviour and Research Therapy 60: 326-329.

Lewinsohn, P. M., Clarke, G. N. et al. (1996). A course in coping: A cognitive-behavioral approach to the treatment of adolescent depression. Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice. E. D. Hibbs & P. S. Jensen. Washington, DC, American Psychological Association: 109-135.

Lindon, J. (1996). Growing Up: From Eight Years to Young Adulthood. London: National Children's Bureau.

Lipsey, M. W. & Wilson, D. B. (1993). "The efficacy of psychological, educational, and behavioral treatment." American Psychologist 48: 1181-1209.

Lipsky, D. K. (1985). "A parental perspective on stress and coping." American Journal of Orthopsychiatry 55: 614-617.

Locke, J. (1689). Two Treatises on Government. Cambridge, England, Cambridge University Press.

Locke, J. (1693). Some thoughts concerning education. John Locke on Education. P. Gay. New York, Bureau of Publications, Teacher's College, Columbia University (1964).

Loevinger, J. (1966a) The meaning and measurement of ego development. American Psychologist, 21, 195-206

Loevinger, J. (1966b) A theory of test response. In A. Anastasi (Ed.), Testing problems in perspective. 545-556, Washington, DC: American Council on Education.

Loevinger, J. (1976). Ego development. San Francisco, Jossey-Bass.

Loevinger, J. (1993) Measurement of personality: True or false? Psychological Inquiry, 4, 1-16.

Lorenz, K. (1935). Companions as factors in the bird's environment. Studies in Animal and Human Behavior. K. Lorenz. Cambridge, MA, Harvard University Press. 1.

Lorenz, K. Z. (1952). King Solomon's Ring. New York, Thomas Y. Crowell.

Luborsky, L. (1962). "Clinician's Judgements of Mental Health: A proposed scale." Archives of General Psychiatry 7: 407-417.

March, J. S., Parker, J. D. A. et al. (1997). "The Multidimensional Anxiety Scale for Children (MASC): Factor Structure, Reliability, and Validity." Child and Adolescent Psychiatry: 554-565.

Mash, E. J. & Johnston, C. (1983). "Parental perceptions of child behaviour problems, parenting self-esteem, and mothers' reported stress in younger and older hyperactive and normal children." Journal of Consulting and Clinical Psychology 51: 68-99.

Masten, A. S., Best, K. M., & Garnezy, N. (1990). "Resilience and development: Contributions from the study of children who overcome adversity." Development and Psychopathology 2: 425-444.

Masten, A. S. & Braswell, L. (1991). Developmental psychopathology: An integrative framework for understanding behaviour problems in children and adolescents. Handbook of Behaviour Therapy and Psychological Science: An Integrative Approach. P. R. Martin. New York, Pergamon.

Masten, A. & Coatsworth, J. (1995). Competence, resilience, and psychopathology. Developmental Psychopathology. D. Cicchetti & D. Cohen. New York, Wiley. 2: 715-752.

Masten, A., Coatsworth, J., Neemann, J. Gest, S., Tellegen, A., & Garmezy, N. (1995). "The structure and coherence of competence from childhood through adolescence." Child Development 66: 1635-1659.

Mathews, G., Jones, D. M., & Chamberlain, A. G. (1992) Predictors of individual differences in mail-coding skills and their variation with ability level. Journal of Applied Psychology, 77, 406-418.

May, P. R. & Tuma, A. H. (1964). "Choice of criteria for the assessment of treatment outcome." J. Psychiatr. Res 2: 199-209.

Mayman, M. (1967). "Object-representations and object-relationships in Rorschach responses." J. Proj. Tech. Pers. Assess 31: 17-24.

McGee, R., Williams, S. & Silva, P. (1984a). "Behavioural and Developmental Characteristics of Aggressive, Hyperactive and Aggressive-Hyperactive Boys." Journal of the American Academy of Child Psychiatry 23(3): 270-279.

McConaughy, S.H. & Achenbach, T.M. (1992). Relations between parent and teacher ratings on the Child Behavior Checklist. Paper presented at the American Academy of Child Psychiatry Meeting, San Antonio TX.

McGlashan, T. (1973). The Documentation of Clinical Psychotropic Drug Trials.

Mellsop, G.W., Thomas, C. S., Ellis, P.M., Purdie, G., Crawshaw, J. & Mendis, N. (1991). "Reliability of the draft diagnostic criteria for research of ICD-10 in comparison with ICD-10 and DSM-III-R." Acta. Psychiatr. Scand 84: 332-335.

Miller, J. M. (1993). The Manualization of Child Psychoanalysis. Unpublished doctoral dissertation, University of London.

Montessori, M. (1917). The Advanced Montessori Method: Spontaneous Activity in Education.

Montessori, M. (1948). The Discovery of the Child. Notre Dame, NJ, Fides Publishers.

Morss, J.R. (1996) Growing Critical: Alternatives to Developmental Psychology. London: Routledge.

Morton, J. & Frith, U. (1996). Causal Modelling: A Structural Approach to Developmental Psychopathology. Developmental Psychopathology. D. Cicchetti & D. J. Cohen, John Wiley & Sons, Inc. 1: 357-390.

Murphy, L. G. & Moriarty, A. E. (1976). Vulnerability, coping and growth. New Haven, Yale University Press.

Nettle, S.M. and Pleck, J.H. 1996). Risk, Resilience and development: the multiple ecologies of black adolescents in the United States. In Stress, risk and resilience in children and adolescents: processes mechanisms and interventions. Haggerty, R.J. and Sherrod, L.R. (Ed). New York, Cambridge University Press.

Newman, J. L., Roberts, L. R., & Syre, C. R. (1993). "Concepts of family among children and adolescents: effect of cognitive level, gender and family structure." Development Psychology 29(6): 951-62.

Nunnally, J. (1960). The place of statistics in psychology. Educational and Psychological Measurement. Vol 20, 641-650.

O'Brien, M., Alldred, P., & Jones, D. (1996). Children's constructions of family and kinship. Children in Families. J. Brannen, & O'Brien, M. London, Falmer Press.

Offord, D. R., Boyle, M., Satzmari, P., Rae-Grant, N. I., Links, P. S., Cadman, D., T., Byles, J. A., Crawford, J. W., Munroe Blum, H., Byrne, C., Thomas, H., Woodward, C. A. (1989). "Ontario Child Health Study: Correlates of disorder." Journal of the American Academy of Child and Adolescent Psychiatry 28: 856-860.

Ollendick, T. H. (1986). Child and adolescent and behavior therapy. Handbook of Psychotherapy and Behavior Change. S. L. Garfield & A. E. Bergin. New York, Wiley.

Olweus, D. (1991). Bully/victim problems among schoolchildren: Basic facts and effects of a school-based intervention programme. The development and treatment of childhood aggression. D. J. Pepler & K. H. Rubin. Hillsdale, NJ, Erlbaum: 411-448.

Orvaschel, H. (1995). Schedule for Affective Disorders and Schizophrenia for School-Age Children: Epidemiologic Version 5 (K-SADS-E). Florida, Nova Southeastern University.

Parry, G. (1992). "Improving psychotherapy services: Applications of research, audit and evaluation." British Journal of Clinical Psychology 31: 3-20.

Patterson, G. (1982). Coercive family processes. Aegean, Oregon, Castilia Publishing Co.

Pavlov, I. P. (1927). Conditioned Reflexes. London, Oxford University Press.

Pavlov, I. P. (1928). Lectures on Conditioned Reflexes. New York, International Publishers.

Piacentini, J., Shaffer, D. et al. (1993). "The Diagnostic Interview Schedule for Children-revised version (DISC-R). III. Concurrent criterion validity." Journal of the American Academy of Child and Adolescent Psychiatry 32: 658-665.

Piaget, J. (1923). The Language & Thought of the Child. New York, Harcourt Brace.

Piaget, J. (1926). The Child's Conception of the World. New York, Harcourt-Brace.

Piaget, J. (1947). The Psychology of Intelligence. Totowa, N.J, Littlefield, Adams, 1972.

Piaget, J. (1936). The Origins of Intelligence in Children. New York, Norton, 1963.

Pilling, S. (1991). Monitoring Clinical Activity: The workload measurement system. Aspects of Audit: Collecting and using clinical information. M. Berger, Association for Child Psychology and Psychiatry: Occasional Papers. 4: 10-15.



Piper, W. E., Azim, A. H. F., et al. (1991). "Quality of object relations vs. interpersonal functioning as a predictor of the therapeutic alliance and psychotherapy outcome." Journal of Nervous and Mental Diseases 179: 432-438.

Pless, I. B., & Stein R. E. K. (1996). Intervention research: Lessons from research on children with chronic disorders. Stress, Risk and Resilience in Children and Adolescents. R. J. Haggerty, Sherrod, L. R., Garmezy, N., & Rutter, M. London, Cambridge University Press.

Plomin, R. (1986). Development, genetics and psychology, Hillside, NJ: Erlbaum.

Quay, H. C. (1986). A critical analysis of DSM-III as a taxonomy of psychopathology in childhood and adolescence. Contemporary directions in psychopathology: Toward the DSM-IV. New York, Guilford: 151-165.

Rice, D. P., Kelman, S., Miller, L. S., & Dunmeyer, S. (1990). The economic costs of alcohol and drug abuse and mental illness: 1985. Report submitted to the Office of Financing and Coverage Policy of the Alcohol, Drug Abuse, and Mental Health Administration, DHHS. San Francisco, Institute for Health and Ageing, University of California.

Richters, E. & Cicchetti, D. (1993). "Mark Twain meets DSM-III-R: Conduct disorder, development and the concept of harmful dysfunction." Development and Psychopathology 5: 5-29.

Robbins, cited by Luborsky, L. (1962). "Clinician's judgements of mental health: A proposed scale." Archives of General Psychiatry 7: 414.

Roberts, W., & Strayer, J. (1996). "Empathy, emotional expressiveness and prosocial behaviour." Child Development 67: 449-470.

Robins, L. N. & Rutter, M. Eds. (1990). Straight and Devious Pathways From Childhood to Adulthood. London, Oxford University Press.

Robin, A. L., Bedway, M. et al. (1996). Therapy for adolescent anorexia nervosa: Addressing cognitions, feelings, and the family's role. Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice. E. D. Hibbs and P. S. Jensen. Washington, DC, American Psychological Association: 239-259.

Rogers, C. et. al. (1967). The therapeutic relationship and its impact. Madison, University of Wisconsin Press.

Ross, D. M. & Ross, S. A. (1982). Hyperactivity. New York, Wiley.

Rousseau, J. J. (1762). Emile, or Education (translated by B. Foxley). London, J.M. Dent & Sons (1948).

Roth, A. & Fonagy, P. (1997). What works for whom? A Critical Review of Psychotherapy Research. New York, Guilford Press.

Rousseau, J. J. (1750). Discourse on the Sciences and Arts. The First and Second Discourses. R. D. Masters. New York, St Martin's Press.

Rutter, M. (1983). Stress, coping, and development: Some issues and some questions. Stress, coping, and development in children. N. Garnezy, and Rutter, M. New York, McGraw-Hill.

Rutter, M. (1988). Depressive disorders. Assessment and diagnosis in child psychopathology. M. Rutter, Tuma, A. H., & Lann, I. S. New York, Guilford Press.

Rutter, M. (1990). Psychosocial resilience and protective mechanisms. Risk and protective factors in the development of psychopathology. J. Rolf, A. S. Masten, D. Cicchetti and S. Weintraub. New York, Cambridge University Press: 181-214.

Rutter, M. (1993). "Resilience: Some conceptual considerations." Journal of Adolescent Health 14: 626-631.

Rutter, M. (1994). Developmental psychopathology as a research perspective. Longitudinal Research on Individual Development: Present Status and Future Perspectives. D. Magnusson and P. Casar. New York, Cambridge University Press.

Rutter, M. (1996). Stress research: Accomplishments and tasks ahead. Stress, Risk and Resilience in Children and Adolescents. R. J. Haggerty, Sherrod, L. R., Garnezy, N., & Rutter, M. London, Cambridge University Press.

Rutter, M., Dunn, J., et al. (1997). "Integrating nature and nurture: Implications of person-environment correlations and interactions for developmental psychology." Development and Psychopathology 9: 335-364.

Rutter, M., Giller, H., et al. (1998). Antisocial Behavior by Young People. Cambridge, Cambridge University Press.

Rutter, M. & O'Connor, T. (1999). Implications of attachment theory for child care policies. Handbook of Attachment. J. Cassidy & P. R. Shaver. New York, Guilford Press: 823-844.

Rutter, M. & Quinton, D. (1984). "Parental psychiatric disorder: effects on children." Psychological Medicine 14: 853-880.

Rutter, M., & Rutter, M. (1993). Developing Minds. Harmondsworth, Penguin.

Rutter, M. & Shaffer, D. (1980). "DSM-III: A step forward or back in terms of the classification of child psychiatric disorders." Journal of the American Academy of Child Psychiatry 19: 371-394.

Rutter, M., Tizard, J. et al., (1970). Education, Health and Behaviour. London, Longmans.

Rutter, M., Tizard, J., et al. (1976). "Isle of Wight Studies 1964-1974." Psychological Medicine 6: 313-332.

Rutter, M., Tizard, J., & Whitmore, K. (1987). Education, Health and Behaviour. London, Longman.

Rutter, M. & Tuma, A. H. (1988). Diagnosis and Classification: Some Outstanding Issues. Assessment and Diagnosis in Child Psychopathology. M. Rutter, A. H. Tuma and I. S. Lann. London, David Fulton Publishers.

Rutter, M., Tuma, A. H., & Lann, I. S. (1988). Assessment and diagnosis in child psychopathology. New York, Guilford Press.

Safran, J. D. & Segal, Z. V., (1991). Interpersonal processes in cognitive therapy. New York, Basic Books.

Sameroff, A. J. & Chandler, M. J. (1975). Reproductive risk and the continuum of caretaking causality. Review of child development research. F. D. Horowitz. Chicago, University of Chicago Press: 187-244.

Sameroff, A. J., & Fiese, B. H. (1990). Transactional regulation and early intervention. Handbook of early childhood intervention. S. J. Meisels, & Shonkoff, J. P. Cambridge, MA, Cambridge University Press.

Sandler, J. (1995). "Fantasy, defence & the representational world." Infant Mental Health Journal.

Schwab-Stone, M., Fisher, P. et al. (1993). "The Diagnostic Interview Schedule for Children-revised version (DISC-R), II. Test-retest reliability." Journal of the American Academy of Child and Adolescent Psychiatry 32: 651-657.

Shaffer, M.B. (1985) Review of the Children's Apperception Test. Ninth Mental Measurements Yearbook, 1, 316-317.

Shaffer, D., Gould, M. S., Brasie, J., Ambrosini, P., Fisher, P., Bird, H. & Aluwahlia, S. (1983). "A children's global assessment scale (CGAS)." Archives of General Psychiatry 40: 1228-1231.

Shaffer, D., Schwab-Stone, M. et al. (1993). "The Diagnostic Interview Schedule for Children - Revised Version (DISC-R): I. Preparation, field testing, interrater reliability, and acceptability." Journal of the American Academy of Child and Adolescent Psychiatry 32: 643-650.

Shapiro, T. (1995). "Developmental Issues in Psychotherapy Research." Abnormal Child Psychology 23(1): 31-43.

Silverman, W. K., La Greca, A. M., & Wasserstein, S. (1995). "What do children worry about? Worry and their relation to anxieties." Child Development 66: 671-686.

Silverman, W. K. & Nelles, W. B. (1988). "The Anxiety Disorders Schedule for Children." Journal of the American Academy of Child & Adolescent Psychiatry 27(6): 772-778.

Skinner, B. F. (1938). The Behavior of Organisms. Englewood Cliffs, NJ, Prentice Hall.

Skinner, B. F. (1959). Cumulative Record. Englewood Cliffs, NJ, Prentice Hall.

Smith, P. K. & Sharp, S. Eds. (1994a). School bullying: Insights and perspectives. London, Routledge.

Smith, P.K. & Sharp, S. Eds. (1994b) Tackling bullying in your school: A practical handbook for teachers. London, Routledge.

Sparrow, S. S., Balla, D. A., & Cicchetti, D. V. (1984) Vineland Adaptive Behavior Scales: Interview Edition Expanded Form Manual. Circle Pines, MN: American Guidance Service.

Sparrow, S. S., A. Carter, S., et al. (1996). Comprehensive Psychological Assessment Through the Life Span: A Developmental Approach. Developmental Issues in Assessment, Taxonomy, and Diagnosis of Child and Adolescent Psychopathology. 81-105.

Spielberger, C. D. (1973). State-Trait Inventory for Children. Consulting Psychologists Press.

Sroufe, L. A. (1990). An organizational perspective on the self. Transitions from infancy to childhood: The self. D. Cicchetti & M. Beeghly. Chicago, The University of Chicago Press: 281-307.

Sroufe, L. A. (1997). "Psychopathology as an outcome of development." Development and Psychopathology 9: 251-268.

Sroufe, L. A., & Cooper, R. F. (1988). Child Development: Its Nature and Course. New York, Knopf.

Steingard, R., Biederman, J. et al. (1992). "Psychiatric comorbidity in attention deficit disorder: Impact on the interpretation of Child Behavior Checklist results." Journal of American Academy of Child and Adolescent Psychiatry 31: 449-461.

Steinhausen, H. (1987). "Global assessment of Child Psychopathology." Journal of the American Academy of Child and Adolescent Psychiatry 26: 203-206.

Stone, H. K. & Dellis, N. P. (1960). "An exploratory investigation into the levels hypothesis." J. Proj. Tech. Pers. Assess 24: 333-340.

Strauman, T. (1992). "Self-guides, autobiographical memory, and anxiety and dysphoria: Toward a cognitive model of vulnerability to emotional distress." Journal of Abnormal Psychology 101: 87-95.

Svanborg, P., Gustavsson, P.J., Mattila-Evenden, M. and Asberg, M. (1999). Assessment of maladaptiveness: A core issue in the diagnosing of personality disorders. Journal of Personality Disorders. Vol 13(3), 241-256.

Szatmari, P., Boyle, M. & Offord, D. R. (1989). "ADHD and Conduct Disorder: Degree of Diagnostic Overlap and Differences among Correlates." Journal of the American Academy of Child and Adolescent Psychiatry 28(6): 865-872.

Target, M., & Fonagy, P. (1994a). "Efficacy of Psychoanalysis for Children with Emotional Disorders." Journal of the American Academy of Child Adolescent Psychiatry 33(3): 361-371.

Target, M., & Fonagy, P. (1994b). "Efficacy of Psychoanalysis for Children: Prediction of Outcome in a Developmental Context." Journal of the American Academy of Child Adolescent Psychiatry 33(8): 1134-1144.

Target, M. & Fonagy, P. (1996). The psychological treatment of child and adolescent psychiatric disorders. What Works for Whom? A Critical Review of Psychotherapy Research. A. Roth and P. Fonagy. New York, Guilford Press: 263-320.

Target, M. & Fonagy, P. (1997). The efficacy of treatments for child and adolescent psychiatric disorders. The search for effective psychotherapy: Implications and limitations of the research evidence. Report commissioned by the Department of Health. A. Roth and P. Fonagy. New York, Guilford Press.

Taylor, E., Sandberg, S. et al. (1991). The epidemiology of childhood hyperactivity. Institute of Psychiatry Maudsley Monographs. London, Oxford University Press.

Terman, L. M. & Merrill, M. A. (1960). Stanford-Binet Intelligence Scale: Manual for the third revision, Form L-M. Boston: Houghton-Mifflin.

Undheim, J. (1981). On intelligence: Broad ability factors in 15-year-old children and Cattell's theory of fluid and crystallized intelligence. Scandinavian Journal of Psychology. Vol 22(3), 171-179.

Vaillant, G. E. (1977). Adaptation to Life. Boston, MA, Little, Brown.

Vaillant, G. (1984). "The disadvantages of DSM-III outweigh its advantages." American Journal of Psychiatry 141: 542-545.

Vaughn, B.E., and Bost, K.K. (1999). Attachment and temperament: Redundant, independent, or interacting influences on interpersonal adaptation and personality development? In Handbook of attachment: Theory, research, and clinical applications. Cassidy, J and Shaver, P.R, et al., (Ed). New York, The Guilford Press.

Vitousek, K. B. & Ewald, L. S. (1993). Commentary. The Self in Emotional Distress: Cognitive and Psychodynamic Perspectives. Z.V.Segal and S.J.Blatt. New York and London, The Guilford Press: 288-300.

Wakefield, J. C. (1992a). "The concept of mental disorder: On the boundary between biological facts and social values." American Psychologist 47: 373-388.

Wakefield, J. C. (1992b). "Disorder as harmful dysfunction: A conceptual critique of DSM III-R's definition of mental disorder." Psychological Review 99: 232-247.

Wakefield, J. C. (1997). "When is development disordered? Developmental psychopathology and the harmful dysfunction analysis of mental disorder." Development and Psychopathology 9: 269-290.

Watson, J. B. (1928). Psychological Care of Infant and Child. New York, W. W. Norton.

Watterson, cited by Luborsky, L. (1962). "Clinician's judgements of mental health: A proposed scale." Archives of General Psychiatry 7: 413.

Webster-Stratton, C. (1984). "Randomized trial of two parent training programs for families with conduct - disordered children." Journal of Consulting and Clinical Psychology 52: 666-678.

Weschler, D. (1975). Intelligence Scale for Children Manual - Revised. New York: Psychological Corporation.

Weisz, J. R., Donenberg, G. R., Han, S. S., & Kauneckis, D. (1995). "Child and Adolescent Psychotherapy Outcomes in Experiments versus Clinics: Why the Disparity?" Journal of Abnormal Child Psychology 23(1): 83-105.

Weisz, J. R. & Weiss, B. (1989). "Assessing the effects of clinic-based psychotherapy with children and adolescents." Journal of Consulting and Clinical Psychology 57: 741-746.

Weisz, J. R., Weiss, B. et al. (1992). "The lab versus the clinic: Effects of child and adolescent psychotherapy." American Psychologist 47: 1578-1585.

Weisz, J. R., Weiss, B. et al. (1995). "Effects of psychotherapy with children and adolescents revisited: A meta-analysis of treatment outcome studies." Psychological Bulletin 117: 450-468.

Welner, Z., Reich, W., Herjanic, B., Jung, K. G. & Amado, H. (1987). "Reliability, validity and parent-child agreement: studies of the Diagnostic Interview for Children and Adolescents (DICA)." Journal of the American Academy of Child and Adolescent Psychiatry 26: 649-653.

Werner, E. (1989). "High-risk children in young adulthood: A longitudinal study from birth to 32 years." American Journal of Orthopsychiatry 59: 72-81.

Werner, E. E. & Smith, R. S. (1982). Vulnerable, but Invincible: A Longitudinal Study of Resilient Children and Youth. New York, McGraw-Hill.

Werner, E. E., & Smith, R. S. (1991). Against the odds: High risk children from birth to adulthood. Ithaca, NY, Cornell University Press.

Werry, J. S. & McClellan, J. M (1992). "Predicting outcome in child and adolescent (early onset) schizophrenia and bipolar disorder." Journal of the American Academy of Child and Adolescent Psychiatry 31: 147-150.

Werry, J. S. & Wollersheim, J. P. (1989). "Behaviour therapy with children and adolescents: A twenty-year overview." Journal of the American Academy of Child and Adolescent Psychiatry 28: 1-18.

Westen, D. & Cohen, R. P (1993). The self in borderline personality disorder: A psychodynamic perspective. The self in emotional distress: Cognitive and psychodynamic perspectives. Z.V.Segal and S.J.Blatt. New York and London, The Guilford Press: 334-360.

Williams, T., Wetton, N., & Moon, A. (1989). A Way In. Southampton, Health Education Authority/University of Southampton.

Williamson, G. G., Szczepanski, M., & Zeitlin, S. (1993). Coping frame of reference. Frames of reference in paediatric occupational therapy. P. Kramer, & Hinojosa, J. Baltimore, Williams & Wilkins.

Wimmer, H. & Perner, J. (1983). "Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception." Cognition 13: 103-128.

World Health Organisation (1992). International Statistical Classification of Diseases and Related Health Problems. Geneva, WHO.

Wright, D. M., Moelis, I. et al. (1976). "The outcome of individual child psychotherapy: Increments at follow-up." Journal of Child Psychology and Psychiatry 17: 275-285.

Yule, W. & Rutter, M. (1987). Language development and disorders: Clinics in developmental medicine, Nos. 101-102. London, MacKeith/Blackwell.

Zeitlin, S. (1985). Coping Inventory. Bensenville, IL, Scholastic Testing Service.

Zeitlin, S., & Williamson, G. G. (1990). Coping characteristics of disabled and nondisabled young children. American Journal of Orthopsychiatry 60: 404-411.

Zeitlin, S., & Williamson, G. G. (1994) Coping in Young Children: Early intervention practices to enhance adaptive behavior and resilience. London: Paul H. Brookes

### APPENDIX 3.1: THE GLOBAL ASSESSMENT OF FUNCTIONING (GAF)

## Global Assessment of Functioning (GAF) Scale

Consider psychological, social, and occupational functioning on a hypothetical continuum of mental health–illness. Do not include impairment in functioning due to physical (or environmental) limitations.

**Code** (Note: Use intermediate codes when appropriate, e.g., 45, 68, 72.)

- |                |  |
|----------------|--|
| 100<br> <br>91 | <b>Superior functioning in a wide range of activities, life's problems never seem to get out of hand, is sought out by others because of his or her many positive qualities. No symptoms.</b>  |
| 90<br> <br>81  | <b>Absent or minimal symptoms</b> (e.g., mild anxiety before an exam), <b>good functioning in all areas, interested and involved in a wide range of activities, socially effective, generally satisfied with life, no more than everyday problems or concerns</b> (e.g., an occasional argument with family members).  |
| 80<br> <br>71  | <b>If symptoms are present, they are transient and expectable reactions to psychosocial stressors</b> (e.g., difficulty concentrating after family argument); <b>no more than slight impairment in social, occupational, or school functioning</b> (e.g., temporarily falling behind in schoolwork).   |
| 70<br> <br>61  | <b>Some mild symptoms</b> (e.g., depressed mood and mild insomnia) <b>OR some difficulty in social, occupational, or school functioning</b> (e.g., occasional truancy, or theft within the household), <b>but generally functioning pretty well, has some meaningful interpersonal relationships.</b>  |
| 60<br> <br>51  | <b>Moderate symptoms</b> (e.g., flat affect and circumstantial speech, occasional panic attacks) <b>OR moderate difficulty in social, occupational, or school functioning</b> (e.g., few friends, conflicts with peers or co-workers).   |
| 50<br> <br>41  | <b>Serious symptoms</b> (e.g., suicidal ideation, severe obsessional rituals, frequent shoplifting) <b>OR any serious impairment in social, occupational, or school functioning</b> (e.g., no friends, unable to keep a job).  |
| 40<br> <br>31  | <b>Some impairment in reality testing or communication</b> (e.g., speech is at times illogical, obscure, or irrelevant) <b>OR major impairment in several areas, such as work or school, family relations, judgment, thinking, or mood</b> (e.g., depressed man avoids friends, neglects family, and is unable to work; child frequently beats up younger children, is defiant at home, and is failing at school). |
| 30<br> <br>21  | <b>Behavior is considerably influenced by delusions or hallucinations OR serious impairment in communication or judgment</b> (e.g., sometimes incoherent, acts grossly inappropriately, suicidal preoccupation) <b>OR inability to function in almost all areas</b> (e.g., stays in bed all day; no job, home, or friends).  |
| 20<br> <br>11  | <b>Some danger of hurting self or others</b> (e.g., suicide attempts without clear expectation of death; frequently violent; manic excitement) <b>OR occasionally fails to maintain minimal personal hygiene</b> (e.g., smears feces) <b>OR gross impairment in communication</b> (e.g., largely incoherent or mute).  |
| 10<br> <br>1   | <b>Persistent danger of severely hurting self or others</b> (e.g., recurrent violence) <b>OR persistent inability to maintain minimal personal hygiene OR serious suicidal act with clear expectation of death.</b>  |
| 0              | Inadequate information.  |

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The rating of overall psychological functioning on a scale of 0–100 was operationalized by Luborsky in the Health-Sickness Rating Scale (Luborsky L: "Clinicians' Judgments of Mental Health." *Archives of General Psychiatry* 7:407–417, 1962). Spitzer and colleagues developed a revision of the Health-Sickness Rating Scale called the Global Assessment Scale (GAS) (Endicott J, Spitzer RL, Fleiss JL, Cohen J: "The Global Assessment Scale: A Procedure for Measuring Overall Severity of Psychiatric Disturbance." *Archives of General Psychiatry* 33:766–771, 1976). A modified version of the GAS was included in DSM-III-R as the Global Assessment of Functioning (GAF) Scale.



## APPENDIX 3.2: POSITIVE AND NEGATIVE CHARACTERISTICS FOR EACH DOMAIN

### RESPONSIBILITY FOR OWN BODY NEEDS

For positive development, a child would be expected to look after his body as well as would be expected for his age and physical capacity. Causes of concern would be if the child failed to develop appropriate self care, refusal or inability to take responsibility for his body resulting in e.g. enuresis or encopresis, lack of hygiene, overly dependent help required for dressing or inadequate eating.

### CAPACITY FOR WORK AND LEARNING

Children would be expected to show curiosity and try to find out about things at an age-appropriate level, while any restricted or absent interest in learning, or the capacity to do so would be considered problematic.

### PLAY, HOBBIES, INTERESTS

Children would be expected to be capable of sustaining constructive play with an interest in a wide range of activities. A child who might be often bored and restless, unable to occupy himself, would be considered to be displaying difficulties. This child may flit from one activity to another without being able to concentrate on anything or he may be unwilling to take an active role in entertaining himself, interested only in passive entertainment such as television and videos.

### FRUSTRATION TOLERANCE, IMPULSE CONTROL

A child functioning appropriately would be able to contain his impulses and defer gratification at an age-appropriate level. A child demonstrating difficulty may not be able to accept normal levels of frustration, showing socially inappropriate behaviour such as tantrums, excessive demandingness or crying whenever thwarted, aggressive outbursts or unacceptable sexual behaviour.

### RELATIONSHIP WITH PARENTS

It is expected that the child has warm and increasingly mutual relationships with his parents. There is co-operation and pleasure in each other's company as appropriate to the child's age. The child who may be demonstrating feelings or behaviour obstructing the development of a good relationship, e.g. the child is constantly rude, aggressive, withdrawn, anxiously demanding or controlling, etc. would be considered problematic.

### RELATIONSHIP WITH SIBLING(S)

Children at the positive end of this domain would have developed generally positive relationships with siblings, able to enjoy their companionship, taking into account age and sex differences. At the lower end there might be excessive competition, conflict, or unhealthy dependence between the child and his siblings, which disturbs the balance of the family.

### SEXUAL DEVELOPMENT

A child at the higher end of this domain shows recognition of, and pride in, his gender identity. Interest in sexual matters would be appropriate to the child's age and physical development. At the lower end, the child might behave in an age-discrepant manner in relation to sexual concerns. He may be inhibited and embarrassed or ashamed and unhappy about normal sexual feelings and about his sexual identity; alternatively he may be obsessively curious and excessively disinhibited.

### MORAL DEVELOPMENT

It is expected that the healthy functioning child will develop a sense of his own contribution to events, an understanding that what he says and does affects and influences other people. He will learn to take this into account before he acts. He will be able to appreciate that others' points of view may call for equal consideration with his own. However, at the lower end of functioning child might remain the centre of his world and fail to make allowances for the needs of other people. He might insist on having his own way, and may not be capable of considering the needs of others.

### SOMATISATION

At the higher end of this domain the child has generally good health, or, any illnesses or disabilities seem independent of psychological factors. At the lower end, physical symptoms e.g. allergies, headaches, diarrhoea, insomnia, may appear at times of stress.

### ADAPTABILITY TO CHANGE IN ROUTINE

It is expected that a child is not intolerably dismayed by occasional changes of school, moves of house, etc. and is able to adapt flexibly to most alterations in general routine. The child who might react with anger or anxiety to minor changes; his need for predictability becoming restricting and inflexible both for himself and for other members of the family, would be considered at the lower end of this domain.

### APPENDIX 3.3: ADDING A DEVELOPMENT PERSPECTIVE TO HCAM DOMAINS

#### RESPONSIBILITY FOR OWN BODY NEEDS

A physically normal child would generally be able to manage most washing and dressing tasks, and be independent in using the lavatory, by the age of about five years. He or she would continue to need guidance in deciding how often to wash hair, how to ensure adequate diet, etc., for a further few years, but would be able to cope with day-to-day self-care pretty competently.

#### CAPACITY FOR WORK AND LEARNING

In very young children, learning will take place largely through physical play, observation and manipulation. A healthy child will appear alert, socially responsive and keen to explore objects. An active interest in how things work generally progresses in school-age children from manipulation through dismantling and construction to the increasing ability to do these operations in imagination, and eventually to think about wholly abstract concepts.

#### PLAY, HOBBIES, INTERESTS

The very young child will not be able to occupy himself for very long at a time and will need to be played with and entertained by his caretakers. By the age of three or four he should be able to play happily by himself or with peers and siblings for short periods of time but will still require a good deal of adult attention and participation. During the early school years, the healthy child will show an increasing capacity to think up games and activities and be able to amuse himself without constant adult supervision and involvement though he will still enjoy and benefit from shared activities with parents, teachers and other adults. He should be discovering a variety of different interests, both active and outdoors (as in sport and running and chasing games) and quieter, more solitary, pursuits such as reading, drawing, music, collecting, and model making. By ten or eleven many children will have one or two favourite hobbies about which they may be quite knowledgeable and interested in finding out more. They will be able to maintain a balance between becoming obsessed with one specific activity to the exclusion of everything else and having insufficient concentration to persist in any occupation for long enough to develop a real interest. During the teenage years many of these hobbies will fall away under the pressures of increased schoolwork and the social activities of adolescence but some should remain and survive into adulthood.

#### FRUSTRATION TOLERANCE, IMPULSE CONTROL

Babies and toddlers have very little tolerance of frustration, but from the age of about two years most children develop some capacity to wait for increasing lengths of time for things they want, and gradually learn to understand why gratification will sometimes be delayed or refused. By the time they start school, most children can control their more antisocial impulses and wait their turn for a few minutes. However, while learning to fit in at school the child may regress to more demanding, impulsive behaviour at home for some time. By the age of about eight years, children are generally able to channel and subliminate impulses when

appropriate, and to accept normal levels of frustration without displaying socially unacceptable behaviour. Adolescence brings an increase in drives and to some extent the process of learning appropriate expression and control needs to be gone through again.

#### RELATIONSHIP WITH PARENTS

A healthy child becomes less physically and emotionally dependent on the parents with age, so that after about the age of six or seven the parents are less central in the child's world, and with adolescence even their practical support and encouragement is less necessary. The often passionate, though short-lived, battles of a toddler usually die down in middle childhood though they may re-emerge for a time with all the old intensity as adolescence is reached. However, the overall relationship between a child and his parents should always be warm and enjoyable, as long as the parents are able to provide a positive basis for the child's development.

#### RELATIONSHIP WITH SIBLING(S)

Very young children up to the age of about two are not able to appreciate that siblings have equal claim on resources and on parental attention. This has to be learned gradually. The birth of a younger brother or sister is a major, and often traumatic, event for a small child. Many under-fives will slip back into earlier behaviour patterns at this time, becoming clinging or demanding or with a recurrence of bed-wetting and other regressive behaviours. This should ideally be short-lasting, diminishing as the child adjusts to the new situation. Arguments among siblings occur in almost all families from time to time and are not in themselves a cause for concern. By the time a child reaches school-age he or she ought to be learning to negotiate, compromise, and understand another's point of view sufficiently well to be able to sort out most of his quarrels with brothers and sisters without constant parental intervention. This is a process that continues throughout childhood. The different ages of siblings in a family allow the child to learn how to accept help from those older than himself and to offer protection and support to the younger members of the family.

#### RELATIONSHIP WITH PEERS

Very young children of two years or less may enjoy playing in the company of others, but are normally still focused on family relationships. In the pre-school years, peers become increasingly important, and most children learn to behave in ways that are acceptable and, ideally, attractive to others of their age. Sharing valued possessions, from a favourite toy to the attention of the mother or nursery teacher, becomes easier, and the benefits of being liked and befriended more obvious. However, relationships with peers are still relatively fickle. After the age of five or six, peers become of great importance as the child spends much of his time at school or developing interests in the company of other children, and the influence of parents (while still powerful) gradually moves into the background. Popularity with peers generally becomes of crucial concern, and the development of some close stable friendships is very important. In the primary school years, same-sex friendships tend to dominate, and there is often some antagonism between boys and girls. In adolescence, although same-sex friendships usually remain strong and important, heterosexual interest generally provides a strong impetus for being accepted and admired by peers of the other sex, and all peer relationships may acquire some sexual tinge.

### RELATIONSHIP WITH ADULTS OUTSIDE THE FAMILY

While all children should ideally be responsive and to some extent positive towards friendly adults, they would not be expected to be generally polite and co-operative until the age of around three or four. Once the child starts school, it becomes very important that he should learn to deal with a variety of unknown adults in that setting and others. Difficulties in doing this create obstacles to his learning, pursuit of out-of-school interests and sports, and development of relationships with peers (staying at friends' houses, etc.). During adolescence, relationships with adults need to become somewhat more like relationships between adults; i.e. the child becomes more able to present himself as an independent person and to relate on a basis of more mutual respect and benefit. Adults will still be in positions of authority over the adolescent, who needs eventually to make the transition from a child's to an adult's attitude to this.

### CONFIDENCE AND SELF-ESTEEM

Childhood is a time of constant progress and development. Very young children take pleasure in learning to feed themselves, to walk and talk, and to enlarge the scope of their abilities. As a child becomes more able to perform tasks for himself he will become more independent of his parents and learn increasingly to trust in his own capabilities. Children who are sufficiently reinforced by the approval and encouragement of parents and teachers will usually persist in mastering new areas of competence and developing a sense of their own worth. By the time a child starts school it is important that he should have confidence in his own ability to meet and cope with the many new challenges he will be faced with. His self-esteem should be sufficiently robust by the age of 5 that he can assimilate occasional failure though he will continue to need help from others in learning how to evaluate himself. As his personal identity becomes more firmly established in the middle years of childhood the child begins to construct a relatively stable picture of himself which relies heavily on his perceptions of his attributes. The early teenage years are often times of great self-doubt and uncertainty alternating with a sense of great potential and capacity. This continues throughout adolescence, but the child should also become capable at this time of making a fairly realistic assessment of both his strengths and limitations and should be looking for ways to best realise his potential.

### CAPACITY TO COPE WITH ANXIETY

Children of all ages suffer extreme stress from events such as the death or serious illness of a primary caregiver, separations, hospitalisations and other losses. Babies and very young children rely almost totally on parents and others to protect them from the effects of severe stress. As the child becomes increasingly able to talk about his anxieties and to understand the reason why some events occur, he should be able, provided he has appropriate support, to cope with most stresses without excessive disorientation. All children need help in understanding events that cause extreme distress but the child with a secure sense of self should not be overwhelmed by feelings of guilt or hopelessness. The ability to cope with stress increases consistently, as the child grows older.

### LEVEL AND STABILITY OF MOOD

Children are born with varying temperaments and some are naturally more equable than others. These individual differences contribute to the development of the total personality and should be taken into account when assessing whether a child's behaviour is a cause for concern. Babies and toddlers often show rapid changes of mood, shifting very fast from, say, distress to pleasure or from contentment to anger but by school age the child should be learning to monitor his reactions to events and to be capable of some control over his moods. By about nine or ten he should seldom need to resort to less-adaptive ways of coping such as sulking or screaming or unpredictable changes of mood and should, ideally, be able to retain a generally well-balanced frame of mind. During adolescence, mood-swings and previously discarded emotional responses such as crying, sulking and shouting may re-appear for a while, though often only in certain environments (e.g. home) with the child able to behave in a more mature way when necessary.

### SEXUAL DEVELOPMENT

By the age of about two children have generally developed an increasingly stable sense of their own gender identity and are beginning to understand sexual difference. All healthy children are curious about sex and reproduction and will show interest in their own, and others' bodies. If they are given relevant answers to their questions they should gain a growing understanding of sexual issues appropriate to their physical and psychological stage of development. Up to the age of about four they may be relatively sexually disinhibited, but develop increasing modesty and a growing awareness of social sanctions against unacceptable public behaviour (e.g. masturbation). Throughout the middle years of childhood, interests and energy are focused more on school work, friendships and hobbies than on sexual matters, but physical development at puberty brings a sharp increase in sexual awareness, which may be experienced as either pleasurable or anxiety-provoking or, often, both. The healthy adolescent will be comfortable enough with the idea of his own sexual identity to be able to cope sufficiently well with any anxiety, and to find ways of appropriately expressing his sexuality, leading eventually, usually in late adolescence or early adulthood, to a mutual and caring sexual relationship with a suitable partner.

### MORAL DEVELOPMENT

A sense of moral responsibility evolves only gradually and is rarely fully secure before late adolescence, if then. At first the baby demands that his wishes should be met without delay and he cannot wait for gratification. By the time he begins to understand language he should be able to tolerate occasional short delays before his needs are met and also to realise that not everything he wants will be given to him. As the child forms relationships with others he will have to begin to consider people in their own right and not simply as extensions of himself, though it will not be until he is about eight years old that he has a genuine capacity to consider what it would be like to be in someone else's position. He gradually learns to consider the consequences of his actions and to accept responsibility for what he does. All this happens slowly and often inconsistently so that the older child can display altruistic behaviour one day and be making unreasonable demands for his own needs to be met the next. A true sense of moral responsibility has not always developed

even by adulthood but some ability to make decisions based on a realistic perception of one's own and others' needs should be slowly evolving throughout childhood.

### SOMATISATION

Emotional distress in babies and the very young child often shows itself in physical symptoms, although individuals vary considerably in their tendency to do this. As mental capacity develops and the ability to verbalise feelings of anxiety and stress increases there should be less need to use physical means to express psychological pain or discomfort. Most children (and adults) will express physical expressions of worry and distress from time to time but the psychologically stable child should not be in the habit of doing so.

### ADAPTABILITY TO CHANGE IN ROUTINE

Generally speaking, the younger the child the more security he gets from a set routine and the greater the need to keep significant change to a minimum. No child can be expected to cope with continual change or with major change, say, in primary caretakers, without signs of distress, nor is it easy to cope with many changes at once as might happen if moving house also meant leaving friends behind and going to a new school but most children should manage less drastic alterations without too much anxiety. Toddlers often protest at even minor changes in daily routine, seeing unfamiliar people, trying different foods and so on but most children should be more flexible than this by about four or five. Schooldays demand a certain ability to cope with change and new teachers and lessons and the healthy child will generally be able to cope with this, though he may need a little extra support and understanding at particularly difficult times such as the beginnings of the school year.

### APPENDIX 3.4: ANCHORING THE DOMAINS IN THE 100-POINT SCALE

#### 100 - 91: EXCELLENT FUNCTIONING

The child shows excellent functioning in every aspect of his life. He has good relationships with parents and siblings, is popular with peers and well liked by teachers and other adults. He has a wide range of interests, and participates in a variety of activities. He is exceptionally mature, of equable temperament, copes well in all situations and obviously enjoys life.

#### 90 - 81: GOOD FUNCTIONING

The child functions well (i.e. at least an average level for his age) in all areas. He is usually co-operative and pleasant, forms positive relationships with those around him, and makes good use of his abilities and skills both at school and in pursuing extra-curricular interests. The child has generally good relationships within the family, with both parents and siblings, although there may be some areas of minor conflict at times. The child will be able to cope quite comfortably with everyday situations, but this may break down partially at times of unusual stress, so that the child becomes mildly unsettled, for instance anxious, insecure, or irritable.

#### 80 - 71: ADEQUATE FUNCTIONING

The child shows a good level of functioning and generally copes well at school, at home and elsewhere. He has friends and is able to pursue his own interests. He is regarded as being of average maturity and competence for his age. This category would be used where the child has been showing some mild symptoms, such as bedwetting, temper tantrums, hostility towards a sibling, mild phobic rituals, disobedience, poor school work, impaired relationships with peers, but where these symptoms are felt to be **temporary** reactions to identifiable stress. Alternatively, the child may have longer-term but very minor symptoms (not warranting a psychiatric diagnosis), such as occasional incidents of bed-wetting in an under-five, a rather poor relationship with one sibling, a tendency to minor psychosomatic symptoms (e.g. sometimes has stomach-aches before school). The child is functioning normally in other areas of his life, and is certainly not regarded as disturbed or generally difficult by those around him.

#### 70 - 61: MILDLY IMPAIRED FUNCTIONING

The child functions fairly well in most situations, although his ability to cope is rather erratic and liable to break down under stress. He is generally accepted by those around him and has friends. He has the capacity to act effectively and in accordance with his age but this is not demonstrated consistently. These are children who will usually be worrying their parents and probably also their teachers, but whose symptoms may not be evident to acquaintances. Examples common in the AFC files are children who have developed a school phobia but do continue to attend school with considerable support, who have some minor obsessional symptoms confined to the home, who have an entrenched 'batling' relationship with a parent, nightmares and other sleep disturbances, regular bed-wetting or occasional soiling in a child over 4 years, stuttering, excessive difficulty in separating from parents, a specific learning disorder such as reading retardation, and so on. A child with more than one of these difficulties would usually be better placed in the category below.



60 - 51: SIGNIFICANTLY IMPAIRED FUNCTIONING

The child shows variable functioning, coping better with some aspects of his life than with others. For example, he may manage more adequately at home than in school, or vice versa. He may have friends and be capable of pursuing particular interests but he will probably be seen as lacking confidence or being particularly aggressive or anxious at times. This category is used where the child shows a number of established difficulties such as those listed above, but the disturbance does not affect most areas of the child's life. The level of impairment in any area should not be more than mild - moderate. If the disturbance is more global, or there is a severe symptom affecting an important area of the child's life, then the category below is more appropriate. An example of the children seen who should be placed in this category would be a child who has for a considerable time shown a specific learning difficulty of moderate severity, resisted going to school and had battles with parents over homework, but who has good relationships otherwise within the family, with peers, and with teachers, enjoys a range of sports, and is not generally an anxious child.

50 - 41: SIGNIFICANTLY IMPAIRED FUNCTIONING

Others will regard the child as a definite problem. His level of functioning is below expectation in all areas of life. Although he is capable of relating to others adequately, and does so at times, his relationships are more often severely disturbed by, for instance, anxious, aggressive or negativistic behaviour. His friendships and occupations are generally immature, lacking social sensitivity and depth of engagement. These are children whose difficulties inevitably affect most of their lives, and the disturbance will be obvious to observers. They can generally be managed with difficulty within the home and mainstream schooling, but will be causing considerable concern to all adults involved with them, and are likely to have only poor peer relationships, if any. The symptoms will be established, not transient, but these children will still be able to understand the demands of external reality and to cope with them fairly well when not immediately involved in their symptoms (when not caught up in, for instance, obsessional rituals, or uncontrolled aggressive attacks).

40 - 31: SEVERE IMPAIRMENT OF FUNCTIONING

Many, but not all, children in this category will be unable to use ordinary schooling, requiring special educational or medical provision. These children have difficulties in all areas of their life. Most of their relationships are severely disturbed, marked by extreme withdrawal, aggression or anxiety. They may show occasional glimpses of more normal behaviour but are unable to sustain this for any length of time. These are children who have no significant area of their life free from emotional difficulty and whose disturbance is obvious to the most casual observer. It is seldom that such children can be easily accommodated within mainstream education; nor are they often able to participate in peer-group activities or to take part in relatively conflict-free relationships. However, at times when they are not totally dominated by their anxieties and aggression these children may have brief periods of more normal functioning and are usually capable of sustaining short periods of age-appropriate involvement with people and in any activity that particularly holds their attention.

30 - 21: GROSS DISTURBANCE OF FUNCTIONING

The child shows gross defects in all areas of functioning. He is unable to communicate with, or relate to, people in an appropriate way and does not participate socially. His speech will usually be retarded, and often

difficult to understand either because of poor articulation or general incoherence. Any interest shown by the child is likely to be directed towards objects rather than people, and will probably be inappropriately maintained, being either all-consuming and obsessive, or else fleeting and transient. Most children whose functioning falls within this category will be regarded as brain damaged, autistic or psychotic, incapable of most simple acts of social and intellectual functioning. Few children this grossly disturbed are taken on for psychoanalytic treatment but some may be regarded as responding to extreme environmental stress. Such children may thus be seen as potentially capable of making positive use of psychological intervention.

#### 20 - 11: VERY POOR AND DEPENDENT FUNCTIONING

The child functions at a very low level indeed in relation to the norms for his age, being unable to cope without a great deal of extra help and supervision. He shows extreme impairment in even basic tasks such as toileting and feeding. He is unable to relate acceptably to other people and may show lack of control over aggressive, violent or sexual impulses.

#### 10 - 1: MINIMAL PSYCHOLOGICAL FUNCTIONING

The child needs constant care and attention, both day and night. These children may be destructive and/or self-mutilating. They show gross impairment in every part of their lives and are unable to relate to others or to communicate in any effective way.

### APPENDIX 3.5: THE ORIGINAL HCAM PROSPECTIVE MANUAL (AGES 6 – 9)

#### PARAMETER : ABILITY TO LOOK AFTER OWN BODY NEEDS

##### *1 - 20 range*

The child cannot take care of any of his physical needs for himself, and in fact is probably unaware of what those needs are. He may be able to perceive physical sensations, but does not necessarily make a connection with what will make him feel better.

##### *21 - 40 range*

The child is aware of feeling hungry, cold, needing to urinate, etc., but is not able to take appropriate action for most of his own needs. He may be able to do some things for himself, e.g. eat food if it is put in front of him, use the lavatory if placed on it, but be fairly helpless otherwise (e.g. often incontinent, cannot get drink for himself, absolutely unable to judge safety on roads, etc.). The specific capacities of children at this level will vary, but generally they could be characterised as at about a 2-3 year level. There may also be active self-harm or refusal to cooperate with efforts to look after the child physically, perhaps based on delusional ideas about the carers, poison in food, etc..

##### *41 - 60 range*

The child has significant trouble in looking after his physical needs. He may sometimes be encopretic or enuretic during the day as well as at night. There may be frequent accidents, due to poor judgement of safety, or an apparent wish to get hurt, e.g. an 8 year old often runs into the road in front of cars, occasionally gets hit, or does daredevil climbing / jumping feats which inevitably lead to accidents every week or two. The child may either badly neglect or exaggerate routine self-care, e.g. washing, dressing, keeping clothes fairly clean. An example of the first would be a child who always looks a mess because he or she never washes, combs hair, changes muddy clothes, etc., unless made to, and where this is taken far beyond the normal dislike of "fuss" to a seeming obliviousness to appearance, hygiene, and so on. The child may seem to get some pleasure out of being smelly and repellent to others, or may appear not to know what peers are talking about when they complain about his condition (e.g. encopretic child smells disgusting, but seems unconcerned). An example of over-concern would be an obsessional child who has obsessions or rituals involving body care which are in fact damaging, e.g. washes so much that skin is raw, eats too little because of fear of germs or other contamination.

##### *61 - 80 range*

The child is able to manage many aspects of self-care for himself, but remains dependent or uncooperative in other ways, e.g. requires help with bathing, cannot be trusted at 8 years to look before crossing a minor road, will not allow doctor to treat an illness or injury. The child may be unusually accident-prone, or inclined to put himself at risk through trying mildly dangerous stunts, wandering away from adult supervision in public places, etc.. He may seem insensitive to his own sensations, so that for instance he often gets very cold before thinking of doing anything about it. He may be over-careful, refusing to do anything that looks difficult in school gym classes, not so much through fear as through difficulty in judging what is safe or not. The child may tend persistently to eat more or less than is healthy, or be faddy over food so that his diet is not fully adequate. Nocturnal enuresis, or very rare soiling, in the absence of other self-care problems, would probably place the child in this range, although by 9 yrs it might justify placement in the category below.

##### *81 - 100 range*

The child at 6 years is able to dress himself independently, and often takes the initiative to do so when appropriate (e.g. getting ready for school if clothes are in usual place, putting on coat when weather looks cold). He already has preferences in clothing, but is prepared to compromise most of the time as necessary, e.g. for school uniform. As the child gets older within this range, the wish to express himself through having haircut and clothes as admired by peers becomes more assertive, but still gives way to adult social pressure. The child brushes and washes his own hair, cuts nails, generally keeps himself clean, to the extent that this is expected by adults around him. He is completely independent about going to the lavatory, only needing help rarely when ill. He is aware by 7 or 8 of when he needs help with a symptom (e.g. when a sore throat warrants attention), and is prepared to accept examination and treatment from doctors and dentists even when this is unpleasant.

Girls in this age group are mostly a good deal more keen to be clean and smart than boys, who like to be neat very occasionally and scruffy much of the time. The child by 7 or 8 years is eating and drinking much as an adult would (making minimal mess, using knife, fork and spoon, etc.). The child is moderately well able to judge safety, learning during this age period to cycle on minor public roads, cross them carefully, climb without frequent accidents, avoid getting involved with dubious looking older people, etc..

PARAMETER: ABILITY TO LEARN AND WORK*1 - 20 range*

The child is unable to learn new skills or ideas, or to work purposefully.

*21 - 40 range*

The child shows gross interference with all aspects of learning. If this level of functioning has been persistent for years, then he is unlikely to have acquired any basic academic skills, such as reading. In any case, attention and thinking at this level are severely impaired, so that progress in work, self-care, social skills, etc., will be very slow or non-existent. The child cannot be managed in mainstream education, and is likely to be placed in a special school or hospital unit.

*41 - 60 range*

Children rated as within this range will show moderate to severe learning difficulties. These may be due to constitutional limitations, such as mental retardation or developmental disorder, or to psychiatric disturbance. The major difficulty may be poor attention, slowness, severe anxiety, limited understanding or poor motivation. The result is likely to require some form of special education, although (especially for children at the higher end of the range) this may be feasible in mainstream schools.

*61 - 80 range*

The child functions fairly well in all areas where he has opportunities to learn. School performance may be rather patchy, but not seriously worrying. Some children in this range will learn successfully in school but be very incurious and withdrawn at home, or vice-versa. His interests may be quite fully developed but restricted in range. The child may seem keen to learn, but lose interest in each new thing after a few hours or days. A child may be functioning at an adequate level but not up to his full potential.

*81 - 100 range*

Children at this level are showing a rapid expansion of diverse interests, perhaps pursued to quite an expert level, and with great seriousness. It is common for children to be very influenced by the interests, hobbies, etc., currently fashionable with their peers. The child will show enthusiasm for learning in general, and a willingness to persist with work to find out more about something that has caught his imagination. He may concentrate for years on an absorbing subject or hobby, or may be interested in everything, collecting scraps of information for the pleasure of finding things out. A project such as designing and making a complex model, may be followed quite voluntarily for days or weeks. Games or sports requiring skill are often passionately enjoyed and practised, both because of peer approval and for the pleasure of learning. School work may be less assiduously done, but is still a source of stimulus and challenge.

PARAMETER: ABILITY TO TOLERATE FRUSTRATION AND CONTROL IMPULSES*1 - 20 range*

The child is entirely unable to contain impulses or to manage frustration. His reaction is strong, and unmoderated by a wish to please others or to consider their feelings at all. Sexual, aggressive and other wishes are expressed and gratification is pursued (if the child is able to see how to achieve this) without inhibition. It is pointless for others to try to reason with or persuade the child into more acceptable behaviour, instead the environment must be made sufficiently protected, lacking in provocation, and tolerant, for the child to be containable.

*21 - 40 range*

Minor frustration sets off severe reactions in a child at this level of adaptation, so that stressful situations have to be minimised, and angry outbursts prepared for. Often, it may not be obvious what has set off a tantrum or aggressive attack, particularly if the observer does not know the child well. The frustration may not be related to objective external events, but more to the child's internal state or distorted interpretation of what is happening around him. A slight delay or change in routine may seem to the child unmanageable, (possibly because it reminds him of a similar occasion previously when he lost his temper, and now it feels as though people are still not aware of his needs and feelings).

The child may have little control over sexual and aggressive feelings, desire for food or other satisfactions, so that his behaviour makes very few concessions to social norms. Instead, the environment has to accommodate to him, and to a large extent protect him from ordinary expectations, for instance by placing the child in a special unit where age-appropriate self-control is not expected. However, the child will still be able to grasp

what is meant by control and rules, so that he may be able to be helped to fit in to the extent expected in a child, say, four years younger.

#### *41 - 60 range*

The child has great difficulty in coping with his feelings, and the demands of school and home at this age. His family, peers and school teachers will be aware of the likelihood of unpleasant outbursts if the child is thwarted or upset. Minor obstacles, such as not being chosen first for a game, a shop having run out of the particular ice-cream he wanted, having to wait two minutes to go home on a day when he has a cold, may spark off major tantrums which take several minutes at least to subside. During this, the child may hurt other people or property.

The child will probably find it very difficult to sit still or be quick for the times expected in a normal school, and may have to be taught in a special class. His learning will also be interfered with by his difficulty with the frustration of mastering new things, such as practising writing legibly, learning something in arithmetic which involves steps towards a solution. He will tend to avoid learning (either academically or joining in a new "craze" amongst his peers), if this requires practice, but may then be frustrated and angry at being left out.

The child will be difficult for parents to handle, more in public than at home (where circumstances can perhaps be adapted as for a child perhaps 2 - 3 years younger). In shops, the child is likely to make embarrassing demands for things to be bought immediately, and attracting disapproval from passers-by. There may occasionally be loud scenes, in which the child has a full-scale tantrum, physically grabs something that has been demanded, or attacks the restraining adult.

There may also be problems over the expression of sexual impulses, so that the child openly masturbates, touches others inappropriately, frequently uses a lot of obscene words, etc.. (This behaviour is also rated under sexual development; if it is an isolated problem, than the rating in this area is not reduced as much as if there are other signs of low frustration tolerance / impulse control.)

#### *61 - 80 range*

The child has an uncertain temper, and may react to trying circumstances, such as a journey in a hot car, or waiting 20 minutes for a meal to arrive, by crying, whining, generally making a fuss. The family finds themselves adapting to the child's wishes (which feel to him like needs) as to those of a child 1 - 2 years younger. The teacher may be aware of needing to estimate the child's capacity to contain his feelings when planning expeditions or project groups. (He will probably be one of a group in any class who will all present the possibility of scenes if things go wrong or are delayed. The teacher has to decide how much they can cope with, and whether to make somewhat special provision.) The child may have more difficulty than most of his peers in controlling impulses, for instance to interrupt the teacher, keep getting out of his seat in class, enter into a fight in any situation of conflict.

The child may act on aggressive feelings with little restraint, for instance hitting out most days at a younger sibling with little provocation, or destroying something another child has built, because he is annoyed with that child. At 6 or 7, this could be expected at the top of this range of adaptation, but at 8 or 9 it would suggest a rating at the lower end or in the previous category.

It is very difficult for the child to accept failure or incompetence, for instance in learning a rather difficult new skill, or losing in a game with peers. This may lead occasionally to destroying the game, hitting his companion, shouting that it is not fair, etc. (6-7 yrs), or rudeness, tears and complaints (9-10 yrs). If this behaviour happens more often, e.g. several times a week, then the category below is appropriate.

#### *81 - 100 range*

The child is able to restrain aggressive and sexual impulses, so that they are nearly always restricted to socially acceptable situations (rough and tumble fights, sports, occasional arguments, sex play with a consenting friend). This behaviour, of course, evolves over this age period, so that a well-functioning 6 year old is likely to hit others occasionally in anger, or offer his teacher a stream of "rude" words in an excited moment, instead of saving them for the playground. A 6 year old may also chat in class or assembly occasionally in spite of knowing that this is not allowed. By 7 years, a child in this range is pretty reliable about subordinating his immediate impulses to the demands of the external world, particularly at school. At home, the child is likely to be allowed to do what he likes as long as it does not hurt or obstruct others, but when required to fit in, e.g. to remain at the table throughout a meal, he can manage this without much strain.

He has enough self-control (and self-esteem) to allow himself to be taught games that are difficult for him; he does not avoid failure and frustration in the path of learning something of interest. He can keep his head above water in the face of external stresses, such as disappointments when parents are unable to deliver a promised treat, or the child's birthday party goes wrong. A 6 or 7 year old would be likely to show acute frustration and disappointment in these situations, which might well spill over into tears, but would not reach tantrum proportions, or persist for more than an hour. An 8 or 9 year old, would be able to maintain his protest at a verbal level, and resist temptations to (for instance) resort to prolonged whining or to retaliate by spoiling something for someone else. In the face of major setbacks, such as losing a very close friend whose family moves away, or having to change schools to one which he dislikes, the child is likely to show signs of strain such as some withdrawal or unusual dependence, but does not collapse.

The child is able to wait for something he wants, and protests mostly verbally, if at all. For instance, on a long journey to reach a holiday destination, the child can understand that there is no way of speeding it up, and may try to find ways of occupying himself without causing extra stress to everybody. This forbearance will come under strain if the thing / event is strongly desired, if the child is under 7, or if the delay seems to him to be unfair (e.g. if a sibling does not have to wait). Even in these circumstances, the child will not usually express his frustration through tears and tantrums, but may sulk, argue, kick permissible objects particularly hard.

#### PARAMETER: RELATIONSHIP WITH PARENTS

##### *1 - 20 range*

Most children at this level of functioning will be living in an institution rather than at home, and appear to have little or no meaningful relationship with either the parents or the paid caretakers. The child may be very withdrawn or aggressive towards his parents. There is very poor communication, if any. The child may recognise the parents or regular caretakers, but does not recognise their feelings, or possibly the fact that they are other people at all.

An alternative possibility is that the parent is so seriously disturbed that there is no possible healthy relationship at all. An example would be a parent who is actively trying to kill the child, as part of a psychotic state.

##### *21 - 40 range*

This child is too difficult for parents to handle effectively; ordinary parenting is very insufficient for the child's needs. Alternatively, the parent may be providing grossly deficient or abusive care.

The child may show a pervasive disturbance, e.g. extreme aggression, regressive behaviour, overwhelming anxiety or withdrawal, which affects his relationship with his parents as well as the rest of his life. Alternatively, there may be a more specific difficulty at home between the child and his parents. This could include extreme demandingness (e.g. continuous clinging, whining and crying with refusal to separate), very frequent angry tantrums, physical battling and destructiveness (e.g. the child may often injure a parent, or break doors, precious objects, etc.).

The parent may behave in ways which severely undermine the relationship, for instance, injuring the child on a number of occasions, seriously sexually assaulting him, or consciously allowing somebody else to abuse him. There is little or no positive emotional contact between the child and parents / caretakers.

##### *41 - 60 range*

If the child functions generally at this level, then the parent or caregiver is likely to be constantly concerned about the child's disturbed behaviour or mood, so that even when things are peaceful the parent is worried, angry or guilty in relation to him. Alternatively the child's disturbance may be more focused on the parent-child relationship, and the parent may of course be contributing substantially to the difficulties. The most marked feature of the relationship is likely to be constant tension and lack of enjoyment, perhaps complicated by the child and parents' feelings about the relationship of each to other siblings (for instance, the child may feel very jealous of the parent's better relationship with his sister, or the parent may be most angry about the child's effect on an otherwise healthy younger sibling).

A child would be rated in this range if there were a abusive, or otherwise very inappropriate relationship between parent and child, for example physical or sexual abuse at a level which would justify action by the statutory authorities, but which would probably not lead to separation of child and parent (serious, repeated physical assault, rape, etc., would place the relationship in a lower category).

*61 - 80 range*

The relationship is marred by some evidence of unhappiness - an absence of the care-freeness which can be characteristic of this age. There may be attention-seeking behaviour, defiance, clinging, temper tantrums. The child may express anxiety that the parent does not love him, or tend to complain about everything (with or without justification). It is difficult for either child or parent to feel sustained pleasure in each other's company, although some activities may be mutually enjoyable, and the child (or parent) may be easier in some moods, only difficult on some days or in certain situations.

The relationship may be poor because of the parent's limitations, for instance the parent may be over-protective, or resentful, or emotionally dependent on the child, resulting perhaps in symptoms of school refusal in the child.

*81 - 100 range*

The child becomes increasingly independent of the parents, and focuses on peers. He will often chat with a parent but not confide everything, as by about 7 yrs, the child becomes quite conscious of privacy, and of wanting to keep some aspects of his experience to share with friends. He is full of ideas, and some of these need to be negotiated to accommodate the parents' needs, which the child is increasingly able to notice. He is sometimes mischievous, but in a playful rather than really disobedient or risky way.

For a child to function at this level, he needs parents who are themselves well-functioning, available both physically and emotionally, able to respond to the child's needs, but also able to respect his increasing independence from them.

PARAMETER: RELATIONSHIP WITH SIBLINGS*1 - 20 range*

The child is unable to tolerate his siblings at all, or he has no meaningful relationship with them and may ignore them or treat them as concrete objects. The relationship may be so negative that the most common form of interaction is destructive and vindictive as he attacks his siblings viciously with the result that he cannot be trusted to be alone with them. A child will be in this range if he severely puts his sibling's life in danger. Alternatively, a child in this category may be terrified of his siblings and be forced to withdraw from them totally.

*21 - 40 range*

The child's relationship with his siblings is disturbed and unhappy and he may need to be watched continuously, especially when he is with younger siblings because of aggressive tendencies - e.g. pushing sibling into a swimming pool. Alternatively, he may be frequently bullied, teased or attacked by his siblings. The child is very likely to be so intolerable and disturbed that he needs constant attention from his parents resulting in strained familial relationships as the child is seen to be dominating everything and the other sibling may get very jealous and angry about all the attention he is receiving.

*41 - 60 range*

Mutual pleasure between the child and his siblings is very limited, so time spent together often results in anger, jealousy, competition and viciousness if the child attacks and bully his siblings, or he may be bullied by them. The child is likely to regress following the arrival of a younger sibling and may refuse to go to school or cause problems if he does go; other behaviours may re-emerge such as soiling. The child is unable to find anything positive out of being the big brother/sister in terms of increased independence and responsibility. Instead, he is aggressive and unkind towards his sibling and may retreat from other activities and people in his life. His behaviour shows disregard for his sibling's feelings and existence as he takes things from him and tries to 'shut him out' especially when a parent is present.

*61 - 80 range*

The child has some positive relationship with his siblings but there are outbursts of anger, jealousy and competition. The intensity of these disputes or fights is some cause for concern in the family, but is probably not obvious to outsiders, e.g. teachers. He may have a difficult relationship with one particular sibling. In this category, he may also be very over-dependent on his siblings so that his peers play too little role in his social development. With younger siblings, he may be bossy / controlling or overweening. The arrival of a sibling results in a disagreeable and uncooperative relationship. He is attention-seeking and demanding with his parents and hard to satisfy. Daily he may try in minor ways to harm his sibling (pushing him over or play fighting). He may go to his mother and whine about how he is being neglected. The child does not even enjoy

his peers as much as the younger sibling is dominating his life and he wishes to compete for privileges of the younger sibling.

With older siblings, he may be competitive and envious of them. The child may complain about the older sibling, in particular his privileges (e.g. bedtimes). He may frequently interfere in his sibling's activities or games and push his sibling so far that he is rejected. The relationship may be mutually distressing with arguments and fights most days. However, the siblings are still able to enjoy some moments of mutual satisfaction.

#### *81 - 100 range*

The child enjoys his siblings but will be spending more and more time with his peers who are usually of a similar age. However, he is able to act thoughtfully and sympathetically towards younger siblings without being over-weening or bossy. With older siblings, competition, jealousy, envy and hostility may occur but it is short-lived as the positive sides of the relationship are too strong and potent.

He is helpful with younger siblings and if he is irritated instead of getting into a conflict he will usually withdraw temporarily from the situation. He enjoys the role of "big brother/sister", although he can sometimes stretch the bossiness and superiority; however, there is clearly some pride and even love for his sibling.

### PARAMETER: RELATIONSHIPS WITH PEERS OUTSIDE THE FAMILY

#### *1 - 20 range*

The child shows little recognition that other children of his age are his peers, and has little interest in, or capacity for, making contact with them. He may show aggression, sexual excitement, fear, or other responses to other people, including peers, but these do not provide the basis for a relationship. He does not appear to form attachments to other children, so that for instance a child at this level of functioning living in a residential institution does not seem to miss familiar fellow patients, and is not interested in new arrivals, although both may impinge on him as part of the environment.

#### *21 - 40 range*

The child has considerable difficulty in making relationships with peers, although he may be able to coexist with them without trouble. He may treat them more as objects than as people, with little understanding of their thoughts or feelings. At the same time, the child may seem to enjoy having others of his age around, even though at times they seem to do little more than share a space.

#### *41 - 60 range*

The child's relationships are clearly disturbed. He may be bullied by others, may be the bully himself, may simply be ignored, or actively excluded by peers. If the child has a particular friend, it is likely to be another obvious misfit, or possibly a healthier child who has been a long-term playmate and remains loyal. The tolerance of any playmate is likely to be taxed, as this child cannot easily understand others' feelings, cooperate in play, or contain frustration. The child's unpopularity is likely to be reflected in parents of peers leaving him out of parties, etc., because he is generally known to be unable to fit in.

#### *61 - 80 range*

The child is not very popular in his class, he has a few children whom he regards as friends, but relationships are not very well sustained. He might have a special friend, but this may be another child in some difficulty or one who likes befriending others who are in danger of being isolated. Interest in another child may be either transient or inappropriately persistent. The child may be able to stay the night with a special friend, but this is a less straightforwardly positive experience than for healthier children. The child can pursue activities (particularly physical activities) with others, but is not securely linked emotionally to a group of peers. Friendships can be easily spoilt by moods, reactions to frustration and competition, unless the other child is similarly mildly difficult, and they accept each others' limitations.

#### *81 - 100 range*

Peer relationships are of primary importance to the child. The child probably gets on well with most others of his age, but has between one and three close friendships which last for several months at least. Friends are often chosen for similar interests and are generally among the more mature of the child's class or neighbourhood. Through friendships, the child learns to give and take, and to negotiate over what to do together. He gradually realises that by taking turns, sharing ideas, equipment, etc., many more activities can be



enjoyed. It is very important at this age for the child to be able to impress his peers, without necessarily stirring up envy or awe. The child will be keen to acquire toys, games, skills, etc., which other children will admire, and to have things about his family or his own experience which he can use to interest and impress others, and to be proud of himself. The well-functioning child can, however, learn during this age period that boasting and showing off new assets does not win real friends, and he will by about 8 years become fairly discreet and tactful. Shifts in friendships, where a pair no longer enjoy doing things together and turn to other children, are potentially very painful and important to each child. A child in this range of adaptation can weather these experiences, but feels them quite acutely until a new firm friendship is established. If the other child has taken the initiative in moving away, then his self-esteem may be shaken for a period; however, the child is able to draw on support from other friends, parents and siblings.

#### PARAMETER: RELATIONSHIPS WITH ADULTS OUTSIDE THE FAMILY

##### *1 - 20 range*

The child has no apparent attachments to adults around him, and does not seem to acknowledge them as other people, more as objects which may be obstructive, gratifying, or whatever, but no continuing relationship develops. The child may be engrossed in psychotic experiences, completely cut off from contact with others, or so overactive or destructive that no link can be built with him.

##### *21 - 40 range*

The child's relationships to adults outside the family are fraught with difficulty, although there is the capacity for the child to make some relationship. The child may be very withdrawn and uncommunicative, or hyperactive and unmanageable, so that the time is spent setting limits on his behaviour, or he may (for instance) insist on an adult becoming part of obsessional rituals, so that there is a constant struggle over this. It is likely that most of the other adults with whom the child has contact will be professional staff, e.g. of a hospital unit, but he will probably tax the tolerance of even paid and trained caretakers.

##### *41 - 60 range*

Although the child can perhaps be managed outside a special school or hospital, his relationships with adults other than his main caretakers are far from rewarding. The child cannot fit into social expectations normal for his age, and will need special consideration at all times. It is very unlikely that the child could be managed in an ordinary class of 30 children; whether in a special school, or given special teaching in a mainstream school, he will not be comfortable sharing the attention of his teacher with more than perhaps 8 others. The child's behaviour may be (for instance) overactive, aggressive, defiant, anxious, excessively dependent or withdrawn, but in any case will present problems both in managing the child's behaviour and in forming any positive relationship. The constructive cooperation and companionship, which can be a hallmark of relationships with adults in this age group, will be rare or non-existent for this child. Some children with deprived backgrounds form superficial, indiscriminate links with any available adult, talking to and being inappropriately physically affectionate with casual acquaintances.

##### *61 - 80 range*

The child can form positive attachments to adults outside the family, such as teachers, but there are some obstacles. The child may be uneven in his behaviour, so that he is pleasant and interested on some occasions, aggressive, babyish or very distractible at other times. These occasions may be predictable, e.g. the child is easy to be with in a calm, structured situation, but agitated and unmanageable on a school outing or at the home of a friend. Alternatively, the child may be consistently rather difficult, very shy, boisterous, bossy towards other children (hence a problem to the adult in charge), clingy and demanding, timid and tearful. All these tendencies make it harder for the adult to like the child and enjoy his company. Another possibility is that the child relates rather inappropriately to adults outside the family, probably because of previous distorting experiences. For instance, the child may be bullied or abused at home, and relate to adults outside with the same expectations - being fearful, suspicious, withdrawn or perhaps seductive.

##### *81 - 100 range*

The child develops good, easy relationships with adults, but is very interested in them after 7 or 8 years old, except for how they can help him in developing other interests (skills, friendships). He has likes and dislikes among adults, but is not very keen to be close to them except when given 'ego help' e.g. taught an exciting game. By about 8 years, he does not have to seek emotional support from adults outside the family, but often seeks practical help. A 6 year old may have a more intense and sometimes dependent relationship, e.g. seeking to be comforted by teacher after an upset. The child has comfortable expectations of adults as mostly helpful

and friendly, i.e. that if the child asks for something reasonable he is likely to get it. However, the child has also learned to be somewhat circumspect with strangers, showing realistic caution.

#### PARAMETER: DEVELOPMENT OF CONFIDENCE AND SELF-ESTEEM

##### *1 - 20 range*

Notions of confidence or self-esteem are of little relevance, as the child has no evident sense of himself, or of being competent in any area. He has no capacity to assess himself or form stable ideas about himself. He may assert demands, but this does not imply a sense of self-worth, more that he does not think about himself or others as real people with qualities or value. Behaviour such as aggression when frustrated by failure, or routine self-mutilation, which might possibly seem to indicate an evaluation of the self, are based on more primitive levels of experience.

##### *21 - 40 range*

The child has little realistic appreciation of his qualities, and has great difficulty in expressing himself appropriately to others. He may need considerable coaxing to risk something new or difficult, or may be quite reckless, having failed to assess his capacities at all accurately. The latter may sometimes look like over-confidence, but has more to do with lack of reality-testing.

##### *41 - 60 range*

The child has consistent and at least moderate difficulty in maintaining a sense of himself and his worth. He may seem very unconfident, obsessively worried about things he may have done wrong, work he cannot do, friends he has not got, or whatever. Alternatively, there may be an unconvincing denial of any self-doubt or vulnerability, bolstered by frequent, obvious lies or evasions. The child is likely to be unpopular with peers, neglected if self-denigrating and anxious, actively rejected if self-aggrandizement goes too far and has no credibility in the wider group. The child may become an established bully, or victim of others.

##### *61 - 80 range*

The child in this range is able most of the time to hold onto a positive image of himself, but this is rather more shaky than is comfortable or reliable. He may sometimes show vulnerable self-esteem by defensively boasting, inventing impressive stories, anxiously seeking reassurance or avoiding a situation which might risk exposure of some worrying aspect of himself. The child may clearly under-rate his abilities, popularity with peers, and so on. Often this will be more marked in school than at home or vice-versa. Development of independence from the family, which should be a hall-mark of this age-group, is likely to be mildly delayed and restricted.

##### *81 - 100 range*

The child is mostly buoyant, and enjoys the sense of a widening social and cognitive field. He welcomes new challenges, such as staying away from home, with friends, at camp or on holidays with other families. These reinforce a sense of growing autonomy, with the background confidence that parents are still available for 'back-up'. The child seeks out things which he is good at, and enjoys demonstrating these to others as well as to himself. At the same time, he can try out more difficult things, such as a new sport or playing solo in a school concert, without serious fear of failure or embarrassment. Occasional 'gaffes' or shaming incidents are taken in the child's stride as long as he has support from teachers, peers or parents. The child has a tendency to recall or select positive aspects of his experience to bolster his self-esteem, glossing over less flattering episodes. He can also learn from his difficulties, and does not have to deny them.

#### PARAMETER: ABILITY TO COPE WITH VERY STRESSFUL EVENTS

##### *1 - 20 range*

The child in this range may be fairly oblivious to events around him, so that he is less vulnerable to things such as losses of usual caretakers, that other children of his age would find stressful. However, there may be other things, taken for granted by better-functioning children, which this child finds intolerable, such as being washed or given medication. Also, the child may be sensitive to his physical environment, so that unexpected noises, a new picture on the wall, may have a disturbing effect. This may be far from predictable. Although it may be hard to know what will disturb a child at this level of adaptation, there are sometimes things which can be found which seem to have a consistently calming effect, such as particular music, or repetitive movement, anything which helps to reduce awareness of any outside events.

*21 - 40 range*

The child reacts strongly to the ordinary, hour-by-hour events of life, so that things like another child having something the child wants to eat, or a teacher not listening to what the child has said, or the child falling over, may lead to outbursts of rage or misery which persist until another event triggers off another reaction. The child may be more responsive to apparently trivial events than to more serious ones like a parent being ill. However, events which directly impinge on the child's daily life, like a new home, school or teacher, may be experienced as entirely unmanageable to the child, so that he regresses for a long period or develops serious symptoms such as self-mutilation or psychotic phenomena.

*41 - 60 range*

The child is very vulnerable to stress. Every day there may be events which are too difficult for the child to handle, for instance, the child tries to play a board game with a peer, loses, then has a tantrum in which the game pieces are thrown all over the room; the mother is ten minutes late in collecting the child from school, so he has an anxiety attack which requires the full-time attention of a teacher until mother arrives; the child has a cold and will not return to school afterwards. More severe pressures, such as changing school, will require a great deal of preparation and support, with the child in an anxious or angry mood for some weeks around that time.

*61 - 80 range*

The child's ability to manage stress is rather low. Mild pressures, such as moving to a higher class after the summer holidays, or one parent going away for a few days on business, may produce some regression to more dependent behaviour: occasional and transient bed-wetting, stomach-aches before school for a few days, etc.. More severe stresses, such as parental divorce, moving to a different country for reasons the child does not accept, may mean that the child becomes significantly depressed for a time, or develops other symptoms, such as persistent headaches, school refusal, sleep disturbance. These may continue for some weeks. The child may be able to manage certain stresses normally, but be vulnerable to particular types of event, such as rejection by a friend or illness in a parent, so that these are experienced as disastrous, and evoke excessive anxiety or depression.

*81 - 100 range*

The child has a variety of ways of coping with upsets (e.g. withdrawal, dependence) and these are effective in ordinary situations. He will be "wobbly" in the face of severe stress, but does not succumb to the extent of developing physical or psychiatric symptoms. He can use alternative sources of support, e.g. teachers, siblings, as well as parents, so that if the parents are involved in producing the stress (e.g. in marital conflict) the child has other social resources to fall back on. Sublimation is a source of strength, and the child may bury himself more than usual in a hobby, a musical instrument or sporting activities at times of upheaval.

PARAMETER: GENERAL MOOD AND VARIABILITY OF MOOD*1 - 20 range*

The child is always in a grossly abnormal mood. This may be constant or variable in type, but never seems like the states of mind of normal children, and (if disturbing to others) is not easily contained. No single mood is typical of this level of functioning, but the most common ones may be apathetic or frightened withdrawal, aggression, and a variety of possible moods induced by hallucinations. The child's state may not be troublesome to those around him, for instance he may be passively withdrawn and mute, or seemingly preoccupied with a mannerism such as hand-twirling, or attending to hallucinations. Environmental changes and medication may have some impact on the child's prevailing mood, but social contact seems to be of little help.

*21 - 40 range*

The child is usually in a very abnormal mood, not really resembling the transient tempers, anxieties, miseries, etc. of healthy children. There may be little that can be done to prevent this or to persuade the child out of it, although medication may be used to alleviate the symptoms. There may, however, be some periods of more equable temper, reduced agitation or anxiety, for instance if a severely obsessional child can sometimes arrange everything to fit in with his rituals, or a violently aggressive child may have a quiet time when tired at the end of the day.

*41 - 60 range*

The child tends to get stuck in moderately difficult moods - these may be anxiety states, such as irritability or depression. There is rarely a sustained normal mood, though it may with skill and patience be possible to spot

warning signals and improve the general level. It is very difficult to distract the child from his prevailing mood, once established, and those at home and school may find themselves constantly working round the child's affective state.

#### *61 - 80 range*

The child quite often has mildly difficult moods -sulking, withdrawal, fussy demandingness, inappropriate aggression, or rapid changes from one mood to another. It is usually possible for someone who knows the child to help him out of this state, but the distraction may only last for minutes unless maintained by somebody else. Alternatively, there may be a continuous but mild anxious, angry or depressive state. The presence of outsiders (e.g. family friends) may help by distracting the child, or may make the child's mood worse and more stubborn, so that he loses peer contacts, and gradually the family may even become somewhat isolated.

#### *81 - 100 range*

The child shows an even temper. He gets angry, excited, anxious, etc., sometimes, in response to external events, but the child's mood returns quite easily to his usual basically calm, positive outlook, focused on things outside himself more than on his internal state. He is becoming conscious of his own mood, able to acknowledge and discuss it, and able sometimes to improve a disgruntled or anxious state, for instance going out with friends, reading, practising a game. He can also control the expression of affective states fairly well, so that even when cross or anxious, the child can still fit in with social demands, perhaps being well-controlled at school, but letting his mood show once back at home.

### PARAMETER: SEXUAL DEVELOPMENT

#### *1 - 20 range*

The child may show no interest at all in his own body or other people's. Alternatively, he may show unrestrained sexual drive, resulting in compulsive unyielding masturbation and exhibitionism. He may think he is the other sex, or attack his genitals dangerously. The child have a delusional belief that he is, or is becoming, a member of the other sex.

#### *21 - 40 range*

There may be a good deal of socially unacceptable sexual behaviour, with insistent, open masturbation or sexual play with others of either sex who are willing to join in. He may act seductively, especially towards older children and adults, and may try to coerce peers and younger children into unwanted activity. There may be a history of an incestuous or other abusive relationship. The child may be confused about his gender identity and show strong desires to be the other sex - a gender identity disorder - which are acted on, e.g. by attacking the genitals, claiming to be of the other sex, adopting a name appropriate to the other gender, flying into a rage when reference is made to the child's future as a man/ woman.

#### *41 - 60 range*

Sexual identity may be tenuous and there may be intense wishes to be the other sex. Masturbation may sometimes be open and embarrassing to others, hence a cause for concern. Sexual enactment with peers may take the form of frequent mutual masturbation or displays of genitals, with little attempt at privacy. As in the category below, the child may be confused about his gender identity and wish to be the other sex, but the actions associated with this will be less extreme, e.g. the child says he/she would like to be a girl/boy, but accepts reality, and acts on the wish only in relatively minor ways, such as by wearing clothes appropriate to the other sex when this is acceptable, e.g. at home but not at school, or by drawing pictures of himself/herself as the other sex, etc.. Behaviour such as that described for the category below may be seen, but less consistently and with more awareness and control.

#### *61 - 80 range*

The child has some anxieties or inappropriate sexual behaviour. For instance, the child may be somewhat disinhibited about masturbation, make unwanted (but easily deflected) approaches to others for sexual exploration, very frequently ask or talk to parents about genitals or sexual matters, or occasionally ask less familiar adults or older children in a way that is inappropriate to the relationship. The child may develop anxieties, for instance about the intactness, shape or size of his body and genitals, distinctly beyond the normal, e.g. a girl diets mildly to put off feared breast development / onset of menstruation, a boy avoids sports because his penis looks "wrong". The child may become anxiously preoccupied about what growing up will mean physically and sexually, so that the present body is not fully enjoyed.

*81 - 100 range*

The child shows discreet curiosity in his and other's bodies. He will mix sufficiently well with the opposite sex, although both boys and girls prefer the company of their own. The child has good control over his impulses. Body changes cause intense interest and speculation, but are coped with comfortably. There is likely to be some sex play and mutual inspection of genitals, etc., but this is kept pretty well secret especially from adults.

PARAMETER: PLAY, HOBBIES, INTERESTS*1 - 20 range*

Play, in the normal sense, does not occur. Any activities may be repetitive and stereotypical without apparent pleasure, and perhaps with pain (e.g. head-banging). The child develops no interests or social activities.

*21 - 40 range*

Children in this category may be compulsively absorbed in one activity (e.g. watching violent videos, playing computer games, arranging a stamp collection), to the total exclusion of others. They are preoccupied with solitary play (self- or object-centred) rather than interactive play. The child may try to be part of others' games, but this generally goes wrong because the child may be very intrusive, and/or unable to adapt to social roles and rules, or may usually get caught up in gratuitous aggressive physical interaction. Play may alternatively be absent as the child cannot pretend, everything is too real. He may express no curiosity in exploring things.

*41 - 60 range*

Solitary play probably takes place more often than social group play, which may not be tolerated as he cannot usually play with peers in an agreeable manner. One interest or activity may tend to dominate, although this is not as fixed and repetitive as in the lower categories, e.g. he may prefer to watch TV most of the time, but does do a wider range of things if encouraged, and may get some enjoyment from these at times. Play may tend to be spoiled by difficulty in distinguishing between fantasy and reality, so that for instance games of secret agents with his peers are impossible for him to understand, he cannot grasp the pretence. He may have difficulty in sustaining interest in one activity constantly flitting from one thing to another.

*61 - 80 range*

The child may have difficulties with interactive play, for instance not liking to share props, and sulking or opting out if another child gets a better part in the activity. Rough and tumble play may spill over into actual aggression. The child may rather often prefer solitary play, or passive entertainment such as video and television, although he does have other interests. The child uses pretend and fantasy play although this may be limited and rather repetitive. Play does not tend to be as spontaneous as for those children in the top category, and pleasure and learning may often be reduced - for instance by difficulty with give-and-take, lack of adventure and exploration. Hobbies may be constantly taken up and abandoned, or become excessive preoccupations, excluding other people and activities to an extent.

*81 - 100 range*

The child engages in different types of play, and has a variety of interests to occupy his time, probably too many to fit in. There may be quite a lot of physical play, cycling, climbing, etc., and increasingly this tends to be formalised into learning sports skills, skate-board routines etc. There is still often an enjoyment of fantasy, and pretend play, as children invent increasingly ingenious scenarios. The child may enjoy developing games with peers which carry over even for weeks, e.g. clubs, teams, secret gangs. The child is able to balance playing by himself with participating in group activities or shared things with other peers or adults. He is rarely bored and if he is, this is short-lived if there is a range of possibilities available for him. Competition becomes more important, as the impulse to surpass others is fed by incentives, prizes etc.. Hobbies may become serious and life-long interests in model-making, horse-riding, playing music, etc..

PARAMETER: SENSE OF MORAL RESPONSIBILITY*1 - 20 range*

The child has no sense of responsibility or of the effect of his behaviour on other people, or in fact of other people as people (who have thoughts or feelings, rights, needs).

*21 - 40 range*

The child in this range is more likely to be showing absence of guilt or consideration than to be showing extreme self-blame such as one might see in clinical depression or severe obsessional behaviour. The child may have enough awareness of social rules to enjoy breaking them: he may frequently, seriously and deliberately torment other children, or show hurtful or destructive behaviour, such as fire-setting or mugging elderly people. He shows no concern about others, and is very difficult or impossible for adults to control, except by physical restraint or perhaps threat of severe punishment. The child may respond to such threats by defiant bravado rather than by fear, or any sense that something serious is happening.

In some cases, the absence of moral sense takes the negative form of egocentricity, such as would be more characteristic of a child under three years, rather than of active or intentional destructiveness. For example, a child who had a moderate pervasive developmental disorder or mental handicap might show some awareness of other people as people (unlike the severely handicapped children in the category below), but no sense of the effect of his actions on anybody else. The child would not be able to understand this connection even with patient explanation and demonstration, but his lack of consideration would not be intentional.

*41 - 60 range*

The child's view of his responsibilities is constantly distorted. He may be as egocentric and unreliable as a child two-three years younger, which infringes other people's rights by accident, or he may be very severe on himself for minor or non-existent failings, or there may be very callous and destructive behaviour.

The child may frequently and carelessly hurt or annoy others while preoccupied with getting his own way, or may frequently deliberately destructively interfere with them. He may enjoy upsetting other children and adults, or have little awareness of their feelings, or be unable to control his own behaviour in spite of some understanding of its effect on others.

An alternative, equally abnormal picture is that the child is weighed down by guilt and anxiety about what he has done or might do. He may constantly seek reassurance that he is doing things right, or he may show his anxiety by developing obsessional rituals, such as checking or repeating (he may be unable to finish pieces of school work because they are crossed out and redone so many times, never feeling good enough).

*61 - 80 range*

The child is able to show awareness of the effect of his behaviour on others, but this is patchy, and easily lost in the excitement of the moment or in the pressure of what he wants for himself. There may be quite callous disregard for the truth (e.g. the child blames others for something he was also involved in), or a capacity to ignore the feelings of others, constrained only by fear of punishment (e.g. bullying other children when out of sight of the teacher). Although the child can understand that something was wrong when it is explained, or when he is helped to put himself in somebody else's shoes, he may not easily see this spontaneously. Even when he does see that something was destructive or hurtful to somebody else, he does not feel remorseful so much as annoyed with himself for getting caught.

Alternatively, the child may be oppressed with a sense of responsibility, so that he becomes joyless and guilty about trivial things. He may be anxiously compliant, spending an excessive amount of time and energy on trying to anticipate what people want, or what he might be blamed for. He may even do things which he knows will be punished, because he feels this is deserved (e.g. a child with a depressed, nagging mother is disobedient to his teacher, and only feels better when she has become angry). He may develop mild ritualistic behaviour, such as arranging things in a special way in his room, or always asking a parent to check his homework, so that his fear of doing something wrong is reduced.

*81 - 100 range*

The child usually shows some real awareness of others' feelings and needs. This should not be a preoccupation, but by seven years old, the child can quite easily appreciate another point of view, with an accompanying feeling of responsibility not to hurt or seriously offend others. However, he does not feel burdened by this responsibility, e.g. he can have an occasional rage or be disobedient at school without excessive guilt. He is likely to feel more interested in and concerned about the needs of his peers than of his parents or other adults. Thus, he may spend time trying to understand why another child was angry or upset by something he did, or (where there is a close relationship) how he might help a sibling with a problem which they have agreed not to tell the parents about.

He will rightly expect adults to be able to look after themselves on the whole, but when there is a special reason for showing consideration for an adult, such as an illness in a parent, or meeting a stranger who is disabled, the child may be pleased and proud to show how kind and helpful he can be. He may also show an intermittent

appreciation of the efforts adults (parents and teachers) make for him, and may offer to help at times (e.g. the child volunteers to clear up after a messy game, or stays at the end of school to help a busy teacher) because of his sense of fairness, or give and take. By about 8 years, he can take responsibility for some routine tasks such as tidying his bedroom or getting school things ready in time (this usually comes earlier with girls, and some otherwise responsive boys never get to this). However, he still takes most of what is provided for him for granted and concentrates on enjoying himself most of the time, having to be reminded quite often about what needs to be done.

The child will feel real guilt if he has done something which has seriously hurt someone else (either physically or emotionally), or has got them into trouble (for instance, if another child has been punished for something he did). He will then try to think of ways of putting this right.

#### PARAMETER: SOMATISATION

##### *1 - 20 range*

The child's physical health is always very poor and clearly related to emotional factors. The child may damage himself frequently and seriously, or develop life-threatening symptoms when faced with something slightly stressful for the average child of this age. There may be other physical symptoms sufficient to require repeated hospitalization, such as deliberate sabotage of a diabetic regimen so that life is seriously endangered.

##### *21 - 40 range*

The child tends to have a lot of anxious and emotional feelings in response to stress. There may be chronic, severe asthma or eczema, persistent insomnia, chronic bowel disorder, chronic eating disorder or chronic allergies, sleeping problems clearly related to or exacerbated by emotional tension. There may be a prolonged relapse into frequent wetting and soiling in a child who had reliable control. His general physical and psychological health is poor as symptoms prevail and substantially interfere with his everyday life, e.g. school attendance. However, the symptoms are not life-threatening, or if they are they are less clearly linked to the child's emotional state.

##### *41 - 60 range*

The child is significantly physically affected by mild-moderate emotional stress. He may suffer from acute eating disorders, bowel disorders, asthma, migraines, eczema, allergies and insomnia. Such disorders may continue for days at a moderate level, following for instance an upset at school, or an argument at home. He may suffer from a nervous habit such as a tic or stammer which flares up with little provocation, and may continue for weeks after the stress is over.

##### *61 - 80 range*

The child has some complaints due to emotional stress (when anxious, angry or frustrated), for example headaches, stomach aches, sleeping problems, toileting. He may also be mildly, occasionally asthmatic or allergic due to stress. He may suffer from mild nervous habits - minor tics or speech impairments, or simply restlessness and fidgeting. However, children in this category react mildly in terms of physical symptoms - the symptoms are transient and never last for long or require much in the way of assistance. If the child shows more than one of these symptoms in response to moderate stress, such as loss of a pet, and they last for more than a few days, he should probably be placed in the category below. The same picture in response to major stress, such as death of a parent, going into hospital for major surgery, would place the child in this category.

##### *81 - 100 range*

The child is in generally good health, and illness tends to be independent of psychological factors. The child may experience rare, mild and transient complaints such as sleeping problems, feeling sick or headache when stressed, but this is not characteristic.

### APPENDIX 3.6: THE ORIGINAL HCAM INTERVIEW PROTOCOL

#### RELATIONSHIP WITH PARENTS

- 1) Can you tell me a little about how ----- gets on with you and your husband / wife / partner *[as indicated by answer to question on front of form]*?
- 2) What kinds of things do you and ----- do together?
- 3) How often do you do these things?
- 4) Who usually initiates them?
- 5) Do you have one-to-one chats with -----?
- 6) How often do you have these chats with -----?
- 7+ 7) Does ----- tell you what s/he is doing or where s/he is going?
- 8) Does ----- talk to you about what s/he is feeling?
- 9) How does ----- react to separations from you?  
*[PROMPT if needed: e.g. childminder, school, camp, hospital, adjusted for age and experience of child]*
- 10) Does ----- get worried or show understanding if you or other adults are ill or upset?  
*[Can you give an example?]*

**Parents can sometimes find their children hard to handle -- for example, they will not do as they are told.**

- 11) Do you find some situations difficult with -----?
- 12) How often do you tend to have a disagreement?
- 13) What are the disagreements mostly about?
- 14) How do they usually end?

#### RELATIONSHIP WITH SIBLINGS

- 1) How would you say ----- gets along with his brothers / sisters?
- 2) What sorts of things do they do together?
- 3) Are there sometimes arguments, for instance if ----- wants what his / her sister / brother has, or their may be jealousy the other way? What happens on such occasions?
- 4) If in trouble, does ----- turn to his / her brother / sister for help? Would he / she offer help if needed?  
*[Can you give a recent example?]*

#### RELATIONSHIP WITH PEERS

- 1) Does ----- prefer group activities or being with one or two others or by him/herself?
- 2) How easily does ----- seem to make friends?



- 3) How long do -----'s friendships seem to last?
- 4) What sort of things does ----- do with his / her friends?
- 5) Roughly how many friends does ----- have at the moment?
- 6) How close are these friends?
- 7) Does ----- have arguments or fights with his / her friends?  
[PROMPT if needed: *What about? What happens? Example?*]
- 8) How does ----- behave in a group?  
[Does ----- involve himself with other children's activities or does s/he wait to be asked? Does ----- share his / her things with others? Competitiveness? What happens if there are arguments?]
- 9) Are there children who seem to dislike or be aggressive towards -----?  
[PROMPT if needed: *Why do you think this is?*]

#### RELATIONSHIP WITH BOTH PEERS AND SIBLINGS

- 1) If ----- had to choose who to spend time with, would it be with his / her brothers / sisters or his / her friends?
- 2) Is ----- able to show that s/he understands the feelings of his / her friends or brothers / sisters?  
[Can you give an example?]

#### RELATIONSHIP WITH ADULTS OUTSIDE THE FAMILY

- 1) How much contact does ----- have with other adults?
- 2) How does ----- get on with other adults, such as your friends, teachers or parents of his / her friends?  
[Is it different according to whether ----- is at home?]
- 3) How does ----- react if an unfamiliar adult friend of yours talks to him / her?
- 4) If approached by a stranger, how would ----- behave?

#### ABILITY TO LOOK AFTER BODILY NEEDS

- 1) How does ----- usually get ready in the mornings?
- 2) Is there anything that ----- is particularly careful about in his / her daily routine, such as washing a lot, or being very fussy about which clothes he / she wears?
- 6 - 10 3) Does ----- need to be told to eat, wash and dress appropriately, or does s/he realise the need to do it for him/herself?
- 11 4) Do you worry or are there arguments about any aspect of the way ----- looks after him/herself, such as clothes, keeping clean, going to doctor or dentist when necessary, etc.?
- 5) What does ----- do if s/he is not feeling well?

Eating

6) What are ----'s general eating habits?

*[PROMPT if needed: eats regular meals, snacks in between]*

Is there anything about his / her eating which worries you?

7) How much do you feel ----- eats in relation to others of his / her age or height?

8) Does ----- eat what is served or does s/he need encouragement?

6 - 10 9) How does ----- behave whilst eating a meal?

*[PROMPT if needed: plays with food / spills food, general manners, uses hands, cutlery]*

Sleep

10) How well does ----- sleep at night?

*[PROMPT if needed: Does ----- ever have trouble getting to sleep, or with nightmares, or other disturbances in the night? ]*

Toileting

6 11) Is ----- able to go to the toilet by him/herself?

6 - 10 12) If a toilet is not immediately available, for example during a long car journey or during a school outing, how does ----- cope?

**Children occasionally wet and soil themselves:**

*[Note: extend age-range upwards if wetting or soiling has been mentioned in the referral of an older child / adolescent]*

6 - 10 13) Has ----- wet him/herself or wet the bed within the last month?

(If no: go to Q.15)

6 - 10 14) How many times has this happened?

6 - 10 15) Has ----- soiled him/herself within the last month?

(If no: go to Q.17)

6 - 10 16) How many times has this happened?

6 - 10 17) What does ----- seem to feel about his/her own faeces and urine?

*[PROMPT if necessary: disgusted, fascinated, indifferent, amused]*

Safety

18) Has ----- been badly hurt in the past 3 months?

19) How often does that sort of thing happen?

20) How does ----- usually get to and from school or friends' houses?

21) Would you be worried if ----- was by him/herself, either at home or outside?

6 - 10 22) How aware is ----- of potential dangers such as open windows, poisons, fire, drugs, or people who might harm him / her?

23) Have there been times when ----- has hurt him/herself on purpose?

*[PROMPT if needed: What happened? When was this?]*

### PLAY AND HOBBIES

- 1) Does ----- have favourite activities / hobbies / interests?  
*[If not mentioned: What about television or video games? What kind of programmes / games does he / she like?]*
- 2) How much time do they take up in an average day?
- 3) Does ----- tend to flit from one thing to another or sustain interest in what s/he is doing?
- 4) Have any of -----'s play activities / hobbies / interests become real fads or crazes?
- 5) Are -----'s play activities / hobbies / interests usually shared with other children or adults, or does he / she do them by himself / herself?
- 6) Does ----- get bored at times?
- 7) Is ----- particularly imaginative in his / her play?

### CAPACITY FOR LEARNING AND WORK

- 1) Is ----- interested in learning and working?
- 2) Does ----- like exploring things, learning new games or skills?
- 3) How does ----- react when shown how to do things?  
*[PROMPT if needed: Does it make any difference whether he / she is shown by an adult or another child?]*
- 4) Does praise and attention affect -----'s interest in what s/he is doing?
- 5) Does ----- have any difficulties at nursery / school / college / work?  
*[PROMPT if needed: What does s/he have problems with? What does ----- feel about going to nursery / school / college / work?]*
- 6) Does ----- often become distracted from what he / she is doing?
- 7) Does ----- tend to complete tasks that s/he has set out to do?  
*[Does he / she tend to feel pleased or proud?]*
- 8) How does ----- cope with his / her homework, if s/he has any?

### FRUSTRATION TOLERANCE AND IMPULSE CONTROL

- 1) What sort of things does ----- find really annoying or frustrating?
- 2) Can you describe how ----- behaves when s/he feels like this?
- 3) How does ----- react to being told s/he must wait before s/he can get what s/he wants?

**Some children may behave unacceptably, e.g. when they are denied their own way, they may become demanding, aggressive, or have tantrums/outbursts.**

- 4) Has ----- behaved like this within the last few months?  
**(If no: go to next section)**
- 5) Can you describe what happened the last time?
- 6) How often does it happen?

- 7) What most often sets it off?
- 8) Has ----- ever hurt him/herself or anyone else like this?  
[PROMPT if needed: *What happened on the last time?*]
- 9) Has ----- damaged things around him / her when behaving like this?  
[PROMPT if needed: *What happened on the last occasion?*]
- 10) Can ----- control these feelings in public?  
(If no: what happened the last time?)

#### DEVELOPMENT OF CONFIDENCE AND SELF-ESTEEM

- 1) What do you think ----- feels about himself / herself in relation to others?  
[PROMPT if needed: *positive, negative examples*]
- 2) Does ----- get dissatisfied with him/herself at times?
- 3) Does ----- often compare him/herself with others?  
(If yes: prompt for detail. If no: go to Q.5)
- 4) How aware is ----- of his / her strengths and weaknesses?
- 5) How does ----- talk about how he / she is getting on, or his / her achievements?
- 6) Does ----- try to do things that s/he is clearly not capable of?  
[PROMPT if needed: *Can you give a recent example?*]

#### ABILITY TO COPE WITH STRESSFUL EVENTS

Sometimes children have to cope with big changes or stresses. Some examples would be a new baby, moving house, being bullied, death of somebody close to them, serious illness, being mugged, parents separating. *[Feel free to substitute appropriate examples]*

- 1) Have there been important stresses in -----'s life? What sort of things have happened in the past year?
- 2) How did ----- react?
- 3) Does ----- seek or accept help and support from others when upset?
- 4) How does ----- deal with more common stresses, such as a school test, staying away from home, a friend changing school, or minor illnesses?
- 5) How does a change in routine affect -----?  
*[For instance: changing bedroom, going on holiday, getting to school by a different route? For young children, could substitute something about different child care arrangement or change of food]*
- 6 - 10 6) Does ----- have particular habits he / she uses to cope with change, such as cuddly toys he / she likes to use, thumb-sucking, asking to come into your bed?

#### GENERAL MOOD AND VARIABILITY OF MOOD

- 1) What moods would you say ----- has been in over the last week?
- 2) How changeable is -----'s mood?

- 3) On the whole, how predictable are -----'s moods?  
*[PROMPT if needed: e.g. does he / she tend to like or be upset by the same thing every time?]*
- 4) What usually brings about a change in mood? For instance, is ----- easily distracted from a bad mood or do good moods easily get spoilt?
- 5) How much control over -----'s moods does s/he seem to have?

#### SEXUAL DEVELOPMENT

- 1) How curious / interested is ----- about his / her own body?
- 6 - 10 2) Does ----- talk much about his / her or other people's bodies?
- 6 - 10 3) Is there anything about -----'s sexual behaviour that concerns you?  
*[e.g. some parents worry about a lot of masturbation, very often wanting to play sex games with other children, or seeming to know a lot about sex]*
- 10+ 4) How does ----- cope with his / her own physical and sexual development? Does s/he talk about it?
- 11 5) Would you say that -----'s sexual development and behaviour was normal for his / her age?
- 11 6) Does any aspect of -----'s sexual behaviour concern you?
- 7) Does ----- especially like doing things more often done by girls / boys *[other sex]*, such as always wanting to wear girls / boys' clothes, or saying he / she would like to be a girl / boy? Does it bother you?
- 10+ 8) Does ----- seem to be confused or worried about his / her body or sexuality?
- 9) How does ----- get on with girls / boys *[other sex]*?
- 11 10) Does ----- have a special boyfriend or girlfriend?  
*[PROMPT if needed: How intense do you think their relationship is?]*

#### SENSE OF MORAL RESPONSIBILITY

- 1) Does ----- usually understand what is right and wrong?  
*[PROMPT if needed: Give an example of how s/he last behaved?]*
- 2) How does ----- react when s/he does something wrong accidentally?
- 3) How does ----- react when s/he does something wrong on purpose?
- 4) Has ----- ever hurt another person intentionally?  
*[PROMPT if needed: Can you give an example]*
- 5) Has ----- ever hurt another person accidentally?  
*[PROMPT if needed: Can you give an example]*

**Children sometimes break rules, and they can do so either knowingly or accidentally.**

- 6) What are your main rules that ----- is expected to keep to?  
*[PROMPT if needed: language, going out, eating]*
- 7) Does ----- break rules?  
 (If no: go to Q.13)

8) What are the usual rules that ----- breaks?

9) How do you discipline -----?

**Children sometimes lie to their parents and friends.**

10) Are there things you know ----- has lied about within the last few months?

*[If at least one instance acknowledged: How often to your knowledge does ----- not tell the truth?]*

11) Does ----- seem to think about how his / her behaviour affects others?

12) Does ----- sometimes put others before him/herself?

13) How does ----- react when someone else's view differs from his / her own?

#### SOMATISATION

1) How would you describe -----'s temperament?

*[PROMPT if needed: e.g. calm, difficult, resilient]*

2) How is -----'s general physical health?

3) Would you describe ----- as a worrier?

4) When he / she does worry, what is it most often worry about?

5) Does ----- react physically to worry or stress?

**(If no: go to Q.9)**

*[PROMPT if needed: How does s/he react? e.g. headaches, stomach problems, insomnia, allergies]*

6) What kinds of stresses cause these reactions?

7) How long do these reactions tend to last?

8) Have they ever resulted in days off?

9) Does ----- have any nervous habits?

*[PROMPT if needed: e.g. a stammer or a tic? Are you concerned about this?]*

#### GENERAL

Is there anything you feel that is important about -----'s development or behaviour at the moment that we have not talked about, and you would like to mention?

APPENDIX 3.7: EXCERPT FROM PILOT RESPONSE SHEET

Parameter	Examiner Prompted example	Participant spontaneous example	Suggest prompt Or question
Body needs		Hates getting up in morning	Who gets him ready for school?
	Washing regularly		
	Morning routines		
	Nightmares	Loves to make toast  Won't eat breakfast	Will he ever cook a meal (age dependent)  What does he do if he gets up in the middle of the night

APPENDIX 3.9: ETHICAL APPROVAL FOR NORMATIVE SAMPLE

UNIVERSITY COLLEGE LONDON MEDICAL SCHOOL

Administration  
Gower Street  
London  
WC1E 6BT

Telephone 0171 387 7050  
Direct Line 0171 209 6305  
Fax 0171 383 2462

All correspondence to:

Mrs Vanessa Revill  
Committee Secretary  
Joint UCL/UCLH Committees on the Ethics of  
Human Research: Committee Alpha  
(External address as above.  
Internal address/deliveries by hand - 6th Floor, St.  
Martin's House, 140 Tottenham Court Road  
(opposite Warren Street Underground Station).



7 February 1996

Dr M Target  
The Anna Freud Centre  
21 Maresfield Gardens  
London NW3 5SH

Dear Dr Target,

Joint UCL/UCLH Committees on the Ethics of Human Research: Committee Alpha

No: 95/2994 (Please quote in all correspondence)  
Title: A core battery of change measures for the psychological treatment of children

Thank you for your letter of 29 January supplying further information at the request of the Committee. I am writing to let you know that this application is now approved. You may therefore go ahead with the study.

Please note that it is important that you notify the Committee of any adverse events or changes (name of investigator etc) relating to this project. You should also notify the Committee on completion of the project, or indeed if the project is abandoned. Please remember to quote the above number in any correspondence.

Yours sincerely,

Professor M Hobsley  
Chairman



APPENDIX 3.10: LETTER SENT TO HEAD-TEACHERS

28th November 1995

Dear 

*Re: UCL / Yale University Joint Research Project*

Thank you again for offering your time to myself and Mary Target to discuss our working together. We appreciate your offer to, provisionally, work within the school grounds and will certainly do all we can to fit in smoothly and inconspicuously with the school's schedule.

The enclosed forms should cover everything we discussed: the list of students who expressed a wish to participate, a letter to the parents seeking consent to see their child's school records, and an example of the forms we would like to ask your teacher's to fill out. Please let me know if I can be of any further help or any changes you would like to make to the letter. I understand that if a large percentage of the students come from a single class this may put unrealistic time pressure on the teacher, perhaps you could let me know if this is the case.

I look forward to hearing from you.

Yours sincerely,

**Tiffany Schneider M.Sc.**  
*Research Fellow*

### **APPENDIX 3.11: INFORMATION SHEET AND CONSENT FORMS SENT TO FAMILIES**

#### ***\*PARENT INFORMATION SHEET\****

#### **The Study's Purpose:**

The purpose of this study is to understand normal child development and change. The standard tasks you and your child are invited to participate in will increase our knowledge of normal childhood growth. The results will be shared with therapists working with children with emotional disturbances and subsequently aiding their therapy. We will be able to share with you the overall results of the project as they become clear to us, if you would like us to.

#### **What the Study Involves:**

##### **For you:**

You will be asked to complete three questionnaires (total time of 15 minutes) about your child's behaviour. You will also participate in two interviews asking you about your child's milestones and development. The main interview lasts approximately 60 minutes, the other two will last a total of 45 minutes.

##### **For your child:**

The tasks with your child could take place in the school, given the consent of the Head Teacher and the Class Teacher, at our research centre in Swiss Cottage or in your home. These standard tasks are fun and administered in the manner of play. There is an interview about friends, a story that will need to be completed using playmobil, a story with pictures needing faces with the appropriate expressions, and two self-administered questionnaires. These tasks should take approximately four hours and are normally completed over two sessions. Lastly, it is hoped that your child's teachers will participate and fill in three questionnaires about interests and relationships at school.

##### **Participation:**

Although we hope that you and your child will help us in carrying out the appropriate tasks, you are of course free to withdraw from the study at any time for any unstated reason. However, we are hoping to follow up a group of children over five years, to look at change over time, and will greatly appreciate those families who feel able to stay involved for follow-up assessments.

##### **Confidentiality:**

Written records of all research assessments will be kept securely and anonymously, identified by serial numbers. Three of the tasks will need to be audio- or video-taped, and in these cases, the material will be stored very securely without names. Apart from being the basis of some ratings for the project, they may also be used for research training purposes within the project, but not outside the Centre. Publication of results will be based on statistical descriptions of groups, and not involve disclosure of individual or identifiable information. Parents would be able to see all research records relating to their child, if they wished.

##### **Appreciation:**

We have found that the child's experience of his / her involvement in the project is an enjoyable and memorable one, and a copy of the video-taped portion of the tasks will be made available as a memento.

***The Research Team can answer any further  
problems or queries, please contact Tiffany Schneider on [REDACTED]***

***\*\* All proposals for research using human subjects are reviewed by an ethics committee before they can proceed. This proposal was reviewed by the Camden & Islington Community Health Services NHS Trust on the Ethics of Human Research as well as the Joint UCL / UCLH Committees on the Ethics of Human Research: Committee Alpha \*\****

## ***\*Child Information Sheet\****

### **Why Are You Doing This Study?**

We would like to know more about people your age, and the only way to find out is to ask.

### **What Will I Be Asked About? What Will I Have To Do?**

You will be asked to do a number of different things :

- a) Be interviewed about your friendships;
- b) Listen to stories and use playmobil to make up the endings;
- c) Listen to stories with matching pictures and put different faces on the people in the stories;
- d) Fill-in two questionnaires about how you feel and what you think.

We will also be seeing your mother or father and teacher, to ask them a few questions. But primarily, we are interested in people your age.

### **How Long Will It Take To Do This? Where Will I Do It?**

It will take about three hours to complete all of the above games. You and your parents will decide where you want to do this. We will come to see you at home, at school (if your teacher says it is OK) or you can come to our research centre.

### **What If I Change My Mind?**

You must remember if you find anything distressing or you change your mind in the middle, just tell us and you can stop. It is no problem, and you wouldn't need to tell us why.

### **Will Anyone Else Know What I Say?**

Everything you do and say will be kept anonymously and confidentially - that means no one will know it is you - we use numbers and not your real names. Also, all forms will be kept locked away so no one can get to it.

Some of the things we will do together will be video-taped. When we have finished, we will send you a copy of the tape so you can see yourself on television!

*\*\* All proposals for research using human subjects are reviewed by an ethics committee before they can proceed. This proposal was reviewed by the Camden & Islington Community Health Services NHS Trust on the Ethics of Human Research as well as the Joint UCL / UCLH Committees on the Ethics of Human Research: Committee Alpha \*\**

# C O N F I D E N T I A L

## PARENT CONSENT FORM

### Consent to Participate in University College Research Study

I (name of Parent/ .....  
primary carer\*)

of (name of child) .....

address .....  
.....  
.....

agree that my child/ward\* may take part in the research project undertaken by the University of London.

I give my consent for members of the research team to contact my child's/ward's school and for teachers at the school to complete questionnaires on my child's/ward's abilities and behaviour at school.

I confirm that the nature and demands of the research have been explained to me and that I understand and accept them.

I also understand that I may withdraw and may withdraw my child/ward from the research project if I find that I am/they are unable to continue for any reason or at any time.

Signed ..... Date .....

Witnessed by ..... Date .....

### INVESTIGATOR'S STATEMENT

I have explained the nature, demands and foreseeable risks of the above research to the subject.

Name ..... Position .....

Signed ..... Date .....

\* delete as appropriate

# C O N F I D E N T I A L

## PARENT CONSENT FORM

*Consent to Participate in University College Research Study*

### CONSENT TO PARTICIPATE IN RESEARCH STUDY

**I (name of Child** .....

**of (school)** .....

agree to take part in the research project by the University of London.

I have been told what the Study is about and/or I have read the information sheet about this study which explains what I have to do. I have asked any questions I might have.

I know that at any time I may decide not to continue if I do not want to.

Signed ..... Date .....

Witnessed by..... Date .....

### INVESTIGATOR'S STATEMENT

I have explained the nature, demands and foreseeable risks of the above research to the subject.

**Name** ..... **Position** .....

**Signed by**..... **Date** .....

**APPENDIX 4.1: ETHICAL APPROVAL FOR REFERRED SAMPLE**

**UNIVERSITY COLLEGE LONDON MEDICAL SCHOOL**

Administration  
Gower Street  
London  
WC1E 6BT

Telephone 0171 387 7050  
Direct Line 0171 209 6305  
Fax 0171 383 2462

**All correspondence to:**

*Mrs Vanessa Revill  
Committee Secretary  
Joint UCL/UCLH Committees on the Ethics of  
Human Research: Committee Alpha  
(External address as above.  
Internal address/deliveries by hand - 6th Floor, St.  
Martin's House, 140 Tottenham Court Road  
(opposite Warren Street Underground Station).*



7 February 1996

Dr M Target  
Senior Research Fellow & Lecturer  
Sub-Department of Clinical Health Psychology  
UCL

Dear Dr Target,

**Joint UCL/UCLH Committees on the Ethics of Human Research: Committee Alpha**

**No: 2735** (Please quote in all correspondence)

**Title: The effectiveness of psychodynamic psychotherapy for children with severe anxiety disorders**

Thank you for your letter of 29 January 1996 clarifying the points raised in my letter of 1 December. I am writing to let you know that the amendment to the above study is acceptable and you may go ahead with the project as amended.

Please remember that it is important that you notify the Committee of any adverse events or changes (name of investigator etc) relating to this project. You should also notify the Committee on completion of the project, or indeed if it is abandoned. Please remember to quote the above number in any correspondence.

Yours sincerely,

Professor M Hobsley  
Chairman

## **APPENDIX 4.2: PARAMETER NARRATIVES IMPULSE CONTROL (AGE 6.0 – 9.11)**

### 25- 40 RANGE: SUMMARY

Minor frustration sets off severe reactions in a child at this level of adaptation, so that stressful situations have to be minimised, and angry outbursts prepared for. Often, it may not be obvious what has set off a tantrum or aggressive attack, particularly if the observer does not know the child well. The frustration may not be related to objective external events, but more to the child's internal state or distorted interpretation of what is happening around him. A slight delay or change in routine may seem to the child unmanageable, (possibly because it reminds him of a similar occasion previously when he lost his temper, and now it feels as though people are still not aware of his needs and feelings).

The child may have little control over sexual and aggressive feelings, desire for food or other satisfactions, so that his behaviour makes very few concessions to social norms. Instead, the environment has to accommodate to him, and to a large extent protect him from ordinary expectations, for instance by placing the child in a special unit where age-appropriate self-control is not expected. However, the child will still be able to grasp what is meant by control and rules, so that he may be able to be helped to fit in to the extent expected in a child, say, four years younger.

### EXAMPLES:

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40

...because I don't think half the things he does is normal. I think surely he can't be thinking about it. He can't help saying or doing things. That's how I feel with him at the moment. I don't think it's sort of normal the way he doesn't get along with people and the way he gets verbally aggressive and that. Like, we was round the other playground and this kid, I don't know what had happened, but this kid had grabbed hold of (child's) hair and had pulled him off the floor. He came round to me and I asked him what was wrong and when we walked back round (child) just went for this kid, I mean he would have killed him I'm sure. He was really angry, I felt he could have done some major harm. Mainly what I'm saying about the arguments and I mean I've fallen out with my family over his behaviour because I've stuck up for him. It's a nightmare really. Then when he started doing that with school, screaming at school and all that, it just got a bit too much and I had to have a meeting with the headmistress and I said maybe I should speak to Child Guidance and they said 'yes, we would have to have done it if you didn't do it'. And he was playing downstairs and if I said to him 'come on up now' and he'd get in here, I'd have to lock the door so he couldn't get out because he'd run out the door and I couldn't get him up from down there. And if I went down he'd run away from me. He's better behaved with other adults when I'm not there, for a time at least and if it's a small group. Everyone says that. He's fine for other people. But they'll still have a problem with him, especially if he's with other kids. (Boy, 8)

Considerations:	Better outside home, particularly if one on one attention
Concerns:	Severity of episodes; unable to sublimate feelings of frustration
Associated parameters:	Relationship with mum

45 - 60 RANGE: SUMMARY

The child has great difficulty in coping with his feelings, and the demands of school and home at this age. His family, peers and school teachers will be aware of the likelihood of unpleasant outbursts if the child is thwarted or upset. Minor obstacles, such as not being chosen first for a game, a shop having run out of the particular ice-cream he wanted, having to wait to go home on a day when he has a cold, may spark off major tantrums which take several minutes at least to subside. During this, the child may hurt other people or property.

The child will probably find it very difficult to sit still or be quick for the times expected in a normal school, and may have to be taught in a special class. His learning will also be interfered with by his difficulty with the frustration of mastering new things, such as practising writing legibly, learning something in arithmetic which involves steps towards a solution. He will avoid situations where new skills or interests could be learned and enjoyed, particularly if this requires practice, but may then be frustrated and angry at being left out.

The child will be difficult for parents to handle, more in public than at home (where circumstances can perhaps be adapted as for a child perhaps 2 - 3 years younger). In shops, the child is likely to make embarrassing demands for things to be bought immediately, and attracting disapproval from passers-by. There may occasionally be loud scenes, in which the child has a full-scale tantrum, physically grabs something that has been demanded, or attacks the restraining adult.

There may also be problems over the expression of sexual impulses, so that the child openly masturbates, touches others inappropriately, frequently uses a lot of obscene words, etc.. (This behaviour is also rated under sexual development; if it is an isolated problem, than the rating in this area is not reduced as much as if there are other signs of low frustration tolerance / impulse control.)

EXAMPLES:

45

He wants to do everything and when he can't he gets terribly upset and starts getting very angry about (schoolwork) and really distressed. And I say 'well, leave it, don't do it' and he shouts 'no, I've got to do it' and it just goes on and on and on. If he's tired and tetchy and it's got to the stage where he's throwing too many things around then I'll say 'finish it off tomorrow!' Although he had been naughty and silly at school, well silly but not awful, but at home was a nightmare. He was swearing and throwing things around and hitting me and kicking me. He just had no control at all, and it was so stupid because it was something he really wanted to do. (Boy, 8)

Considerations: Improved tolerance at school

Concerns: Verbal and physical expression; particularly towards mother, frequency and duration of episodes, triggered by ordinary occurrences

Associated parameters: Relationship with mother

50

(Child) sort of reacts badly. He can't ignore it. You know how you kind of ignore things, well he might ignore it for 10 minutes, quarter of an hour, and then he'll turn round and like get very cross. Like lose his temper. Well, he just keeps screaming and shouting so you can't talk to him and he can't hear whatever it was he wanted to hear in



the first place. All you can do is turn the television off and send him to his room. Which, if he's reading a book he can read it happily in his room, but if he was watching a programme he'll probably cry and whinge for quarter of an hour, half an hour, till whatever it was has finished. Although, of course, they've got a television in their room as well, so it doesn't really ... if he can get the programme on in his room then he'll be quiet and watch it there. He makes a big fuss over the slightest little noise someone else makes so he misses, or everybody misses, half of whatever it was that was being watched. (Boy, 9)

Considerations: Not expressed physically

Concerns: Triggered by ordinary occurrences, daily episodes

Associated parameters:

---

55

He does need to get his own way. Food. If I say 'no' to food he loses it. Before he went away he was constantly 'I want to eat this now - I'm hungry' and he'd just eaten a meal, and he'd still say he was hungry - he'd got quite a compulsion to eat before he went away. It was really horrible actually. He'd be literally screaming, fighting, pushing me out of the way of the fridge if I stood in front of it, literally losing it, going hysterical because I wouldn't let him have a biscuit. And the same thing with (step-parent). And it was really horrible to see. It was like a drug addict would be if you stopped them getting their fix. (Boy, 6)

Considerations: Improved tolerance outside home

Concerns: Triggered by everyday occurrence, intensity, duration and frequency of episodes, verbal and physical expression

Associated parameters: Body needs; stress

---

60

You can't keep him. I can't keep him in now. That was one of the problems that was to do with my referring us was the problem that I had trying to keep him in. He's a little street urchin I'm afraid! He'll throw it out of the way, to one side, and start moaning about the fact that he can't do it. He wants to be doing something all of the time. He needs to be occupied all the time otherwise ... he just drives me mad. I know it's horrible and I say ... a lot of the time I have to wait until he goes to sleep, but because he don't go to sleep 'till late, I don't get the chance to spend that time with him. So he pesters me and pesters me all the time 'play me a game with this' and 'play me a game with that' and sometimes I'll say 'well alright then' and we'll start playing but (brother) come and mess it up or (child) gets annoyed and ruins it. He wants to be first, and if things aren't going his way, and if he hurts himself he thinks someone's laughing at him, it's 'I'm going to beat you up - you laughed at me' and half the time they haven't even been laughing at him. His behaviour can be very verbally aggressive. Not actually physically aggressive, but verbally. He's is a perfectionist as far as his drawing's concerned, and if he gets something wrong again and again and again then that's it, he'll get, don't know ... What I find with Boy is he likes a lot of one-to-one and if he's sort of working, like if we go to my Dad's and my Dad's working, and he might say 'can I help you Granddad' and my Dad might say 'well you hold this for me' and then he's fine. (Boy, 8)

Considerations:	Better in one to one situations; not physical aggression
Concerns:	Effects situations across child's life
Associated parameters:	Confidence; other adults

#### 65 - 80 RANGE: SUMMARY

The child has an uncertain temper, and may react to trying circumstances, such as a journey in a hot car, or waiting for a meal to arrive, by crying, whining, generally making a fuss. The family finds themselves adapting to the child's wishes (which feel to him like needs) as to those of a child 1 - 2 years younger. The teacher may be aware of needing to estimate the child's capacity to contain his feelings when planning expeditions or project groups. (He will probably be one of a group in any class who will all present the possibility of scenes if things go wrong or are delayed. The teacher has to decide how much they can cope with, and whether to make somewhat special provision.) The child may have more difficulty than most of his peers in controlling impulses, for instance to interrupt the teacher, keep getting out of his seat in class, enter into a fight in any situation of conflict.

The child may act on aggressive feelings with little restraint, for instance hitting out most days at a younger sibling with little provocation, or destroying something another child has built, because he is annoyed with that child.

It is very difficult for the child to accept failure or incompetence, for instance in learning a rather difficult new skill, or losing in a game with peers. This may lead occasionally to destroying the game, hitting his companion, shouting that it is not fair, etc. (6-7 years), or rudeness, tears and complaints (9-10 years). If this behaviour happens more often, e.g. several times a week, then the category below is appropriate.

#### EXAMPLES:

65

...if she sets her heart on something and I say 'no' then that's very annoying and frustrating obviously. Yes, she can be very impatient in that way. If she thinks, like when she thought she was coming here (yesterday) - I mean she knew nothing about what was going to happen coming here anyway. I don't know why it annoyed her so much when we didn't go that day - she was very irritable for a time, you know. Like 'I wanted to do this now because I got geared up to it', you know. But she got over that. She can be really bad sometimes, violent even. She'll bite me, throw things or slam doors if she's annoyed... She won't hurt others, just herself, especially (brother) and she's not acted that way with anybody outside the family, though. She's a bit more cautious. (Girl, 8)

Considerations:	Not outside family, frequency and high intensity
Concerns:	Physical aggression especially towards mother
Associated parameters:	Relationship with Mother and Brother; moral development

70

She's very stubborn. She'll do what she wants to do and if you want her to do something - I said to her 'when we move I hope it's soundproofed' because I could scream with temper. And my Mum said 'don't, just walk away and she'll come round'. And she does, but I'm a very impatient person. If I want something done I want it done

then and there, but I've got to calm down a bit. She loves a fight. If I ask her to do something it's always 'I'll just do this' and 'I'll just do that'. It's the getting her to bed that's the problem mostly. She says 'I just want to see this programme Mummy'. And I think that I can't be bothered and so give in to her, and the next day she can't cope with school. Every night is the same thing. And when we come in from school as well. When she's out and she wants something and you say 'no', she'll come back on you. The other day she said 'can I do this Mummy' and I said 'no' - 'but I won't be long Mummy' - 'no' - 'but please can I do it' .....I tried to get her to do her homework but she wants the television on. I say 'no, do your homework' and she says 'no, I want to watch television'. I say 'well, if you do your homework then you can watch it' and the battle starts. For example, every week she has spellings which she's not very good at. So we've borrowed a spelling book and we've got to go over that every night. But it's sitting her down to get her to do it. She's just so determined that she won't do it. And if she won't do she'll just have a Boy - she'll scream and shout, kick the door and throw things. I'll just shut the door and try and walk away. I think the people next door thought I was murdering her. Because she couldn't get her own way...it lasts about 10 minutes. And then she'll start crying and come over and say she's sorry. And I've told her I'm not going to put up with it, but in the end I come round and give her a cuddle and she keeps saying 'I'm sorry' and I say 'it's not very nice'. And by then we're both worn out! (Girl, 7)

Considerations:	Verbal aggression only; will accomplish the task in the end; difficulties centred around mother
Concerns:	Frequency of episodes
Associated parameters:	Relationship with mother; mood; stress

75

You see (brother) will come along and sort of touch him, you know, hit him or something, playing, and (child) goes off his head because he doesn't like people to break into what he's doing. He'll lash out and scream about how he can't get anything done. That sends him off. He gets a bit frustrated sometimes, especially when he's trying to do the simplest of sums or about most of his school work in maths actually. He rubs it out over and over, eventually throwing it on the floor, it doesn't happen too often, but when it does - watch out!...He can be a bit greedy too. Once he was home alone and there were six Cadbury's cream eggs on the table and he ate every one of them. He wouldn't admit it afterwards either, he never does. (Boy, 11)

Considerations:	Not a frequent occurrence
Concerns:	High intensity
Associated parameters:	Body needs; morality; relationship with sibs

80

If something was bothering him he would tell me. He's very direct, he doesn't need to go round the bush. Like if (brother) is butting him when he's trying to talk to me he'll say 'sh, sh - I was talking first' and he gets louder and louder and if it continues he'll probably just stomp off and cry, or push Alex. That's as violent as he gets, and it's not a hard push. He's just marking his territory, saying 'hey, give me a chance' kind of thing... He's always asking me if he can go over to the shop and I won't let him go over to the shop. 'Can I go over to the shop with Charlie?'. 'No'. Because the road we live near is really dangerous and I don't think I'd let him go over there on his own anyway. If I say 'no' he says 'I knew you were going to say that' and he'll stomp. He'll

go and stomp. And I'll say 'it's for your own good'. He's very reasonable if you give him an explanation as to why and what the dangers are if you do it. He's cool. He's alright. He's a reasonable person. (Boy, 8)

Considerations: Will accept limits eventually; episodes centred around brother  
 Concerns: Quick to flare  
 Associated parameters: Relationship with brother

#### 85 - 100 RANGE: SUMMARY

The child is able to restrain aggressive and sexual impulses, so that they are nearly always restricted to socially acceptable situations (rough and tumble fights, sports, occasional arguments, sex play with a consenting friend). This behaviour, of course, evolves over this age period, so that a well-functioning 6 year old is likely to hit others occasionally in anger, or offer his teacher a stream of "rude" words in an excited moment, instead of saving them for the playground. A 6 year old may also chat in class or assembly occasionally in spite of knowing that this is not allowed. By 7 years, a child in this range is pretty reliable about subordinating his immediate impulses to the demands of the external world, particularly at school. At home, the child is likely to be allowed to do what he likes as long as it does not hurt or obstruct others, but when required to fit in, e.g. to remain at the table throughout a meal, he can manage this without much strain.

He has enough self-control (and self-esteem) to allow himself to be taught games that are difficult for him; he does not avoid failure and frustration in the path of learning something of interest. He can keep his head above water in the face of external stresses, such as disappointments when parents are unable to deliver a promised treat, or the child's birthday party goes wrong. A 6 or 7 year old would be likely to show acute frustration and disappointment in these situations, which might well spill over into tears, but would not reach tantrum proportions, or persist for more than an hour. An 8 or 9 year old, would be able to maintain his protest at a verbal level, and resist temptations to (for instance) resort to prolonged whining or to retaliate by spoiling something for someone else. In the face of major setbacks, such as losing a very close friend whose family moves away, or having to change schools to one which he dislikes, the child is likely to show signs of strain such as some withdrawal or unusual dependence, but does not collapse.

The child is able to wait for something he wants, and protests mostly verbally, if at all. For instance, on a long journey to reach a holiday destination, the child can understand that there is no way of speeding it up, and may try to find ways of occupying himself without causing extra stress to everybody. This forbearance will come under strain if the thing / event is strongly desired, if the child is under 7, or if the delay seems to him to be unfair (e.g. if a sibling does not have to wait). Even in these circumstances, the child will not usually express his frustration through tears and tantrums, but may sulk, argue, kick permissible objects particularly hard.

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#### EXAMPLES:

85

She's a child that's never really had a tantrum ever... but just at the moment she's getting a little bit more um pushing for her way but it's only happened recently....If she thinks something's not fair she might keep on at us but um she sort of accepts it, I think the guidelines are quite clear what we let them do and what we don't, so it's never a shock

when we say no because they, they're usually expecting it. If there's something she wants to do that we won't let her... she'll sort of stomp around the house and slam doors and shout that it's not fair, go off to her bedroom and sulk and little bit, but she's quite a social child she's not one for, she doesn't like to be on her own a lot so...I think cruelty, unfairness, and um if you promised a thing that you then have to withdraw, I think they're the only things sort of, you know that get her angry... but she does cry, I think usually she does cry easily. (Girl, 9)

Considerations: Remains within adult limits

Concerns:

Associated parameters: Morality

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90

If she's doing something fiddley and it's not going right she'll stick with it. She enjoys the challenge, especially if it's something she's enjoying, unless it's absolutely beyond her then she'll say 'oh Mum can you help' whereas her brother wants to do it himself he doesn't want, you know, it's his, sort of thing whereas she's more likely to ask for help then he is... She sticks with things longer... She's more likely to compromise with people too, try and find a way for everyone to feel happy – she has a lot of patience. (Girl, 7)

Considerations:

Concerns:

Associated parameters:

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95

Um I can't think of anything, he finds particularly frustrating, er, he, I can't think of anything really, he's very easy going so he would, if there was something he didn't like I think he would just do it and get it out of the way or something. Er he, oh again that doesn't, if he's not allowed to do something, I can't think of a good example except if he wanted to watch a programme quite late and I don't like the idea of him going to bed that late then I will not let him, and he tries and tries and then thinks oh well it's not worth and, and he gives up, just gets on with something else, he doesn't ever let it make him miserable, really angry he'd rather, he thinks of something, I think he just um distracts himself I think is his strategy. (Boy, 9)

Considerations: Patience; can adapt his strategy to situation

Concerns:

Associated parameters:

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**APPENDIX 4.3: VIGNETTES RELATIONSHIP WITH MOTHER (AGE 6.0 – 9.11)**

Child and mother find it very difficult to spend enjoyable time together as mother is usually needing to contain child's behaviour or discipline him. Child is prone to temper tantrums directed at mother, i.e. slapping her, calling her names, and mother often finds it embarrassing to be in public with child. Despite this, and child's resistance to physical affection, child frequently asks mother to play with him; in fact preferring her to his peers. Mother describes this as 'pestering', but does occasionally comply. (Boy, 8)	45
Following divorce three years ago, Mother is emotionally unavailable to child who feels he cannot go to her for support, comfort or direction. Child blames mother for break-up, takes a passive, cut-off attitude to her while worrying about the possibilities of losing her. Mother and child are able to express some physical affection and will occasionally engage in joint activities but neither is able to maintain this contact. (Boy, 8)	50
Despite difficult schedule child and mother make a point to spend some time every day together, discussing child's day, shopping or reading a story. These times are frequently fraught with difficulties as child continually crosses boundaries set by mother, making time together difficult, especially outside the home. Child's frustration tolerance is low and temper tantrums directed at mother, i.e. verbal and mild physical aggression, are not uncommon. (Boy, 6)	55
Mother and child are able to spend time together and can enjoy each other's company. Child enjoys physical affection from mother as a source of comfort and containment. However, child is unable to verbally express emotions or concerns to mother who is constantly frustrated by this and frequently probes child to share her thoughts and feelings. Child insists she does not wish to discuss this with mother despite obvious outward signs that child is distressed, e.g. week-long seriously dampened mood. Child feels resentful towards mother and will frequently tell mother to 'go away' and 'stop it' when mother persists; mother feels worried about child's potential difficulties and deprived of her daughter's intimacy. (Girl, 9)	60
Mother and child spend occasional time together, but both would prefer to be doing their own solitary activities. Mutual activities are not usually joint attention oriented, e.g. board-games, but done side by side, e.g. television watching. Child is also not prone to much discussion, preferring to read a book or play on the computer. (Boy, 9)	65
Mother and child are able enjoy occasional time together during outings to the zoo, local park and shopping, but most time together is in the house watching TV or eating meals. Child does not enjoy physical contact and mother finds this particularly difficult, although there are no particular areas of difficulty or aggression directed towards mother. Child will answer direct questions, but is unlikely to share activities, feelings or concerns spontaneously with mother. (Boy, 9)	70
Mother describes her relationship as 'volatile' because child's frustration tolerance is low and this often results in difficulties around limit setting. Mother feels child can be 'irritatingly persistent' and she will lose her patience with him daily. Any difficulties are resolved with cuddles and discussions. Child frequently prefers	75

mother's company to peers and mother and son do engage in a variety of mutually enjoyable activities, e.g. board-games, trips to cinema, although mother confesses that she enjoys these less than child does. (Boy, 9)	
Mother and child are members of local museums and clubs and will frequently attend together with additional family members. Child is chatty with mother about activities and frequently discuss concerns with mother, particularly with peer relations which show mild bullying. Child is uncomfortable if mother is not there and will be reluctant to participate in her absence, becoming annoyed and anxious. Child's annoyance at mother's lack of compliance can sometimes turn towards aggression towards mother (Girl, 9)	80
Mother and child spend time together, often going to and from child's activities, or weekend outings with family. Child will spontaneously ask mother to read a book or play a game. Child derives confidence from mother's presence and is more likely to participate with new activity or approach group of new peers. Difficulties usually arise around child's opposition to generalised house rules or limit setting (Boy, 7)	85
Mother and child enjoy activities together, and mother often includes child in outings with her own friends. Child spontaneously asks mother for advice or cuddles and will chat about her day and general activities. Child is affectionate with mother, telling her she loves her for no reason, offering to help mother with household chores, or make her tea when she is ill. Child can be oppositional, but mother is able to negotiate a mutually satisfactory outcome. (Girl, 8)	90
Mother and daughter enjoy indoor games and outdoor activities together and enjoy each other's company daily. Child confides in mother her worries and seeks advice concerning peer relationships. Mother frequently includes child in her own activities with friends when appropriate and feels daughter has an independent relationship with many of mother's friends. (Girl, 9)	95
Child tells mother about daily activities, particularly if it concerns something that has upset her. Mother and child participate in planned activities, but mostly a hectic schedule involves getting the shopping, laundry or other chores done. Child often sits with mother while cooking and 'chats away' with her and mother feels she knows about child's daily life, and also child's peer group (Girl, 9)	100

#### **APPENDIX 4.4: HCAM PARAMETER INTRODUCTIONS**

##### **RESPONSIBILITY FOR OWN BODY NEEDS**

Children are increasingly expected to take responsibility for their own physical well being and safety, at an age appropriate level. At the more mild and moderate levels this may be an unwillingness to follow parental rules regarding safety and hygiene (e.g. crossing the road, brushing teeth), reluctance to be examined by medical professionals, a lack of appropriate range and quantity of food and a lack of increased autonomy concerning self-care (e.g. dressing). At the more severely impaired levels this may manifest as self-harming, frequent drug-taking or severe risk-taking (e.g. acceptance of late-night car rides from strangers).

A child's functioning in this parameter may be related to the parent's ability or desire to support the child's emerging independence. It is important to remember to measure the absolute level of functioning. Any confounding information with, for example, the child's relationship with his parent, would be coded appropriately in the relationship parameter.

##### **CAPACITY AND MOTIVATION FOR WORK AND LEARNING**

This parameter addresses the child's capacity for learning and is a combination of approach and level of achievement attained. Factors to consider are the child's curiosity towards discovering new information, enthusiasm in conquering new skills or knowledge and finally the child's ability to utilise the school or work setting. This may manifest as questions prompted from encountered stimuli, attainment in the school setting, independent research through books or collecting, or an enthusiasm to show people new information or ideas learned.

There are two contexts where a child can show interest in learning; school and recreation. While the child's learning recreationally is of interest and should be considered, school is an important developmental area for this age group and should be given priority. For the same reason, while the child's motivation and attitude towards learning are important factors for consideration, the child is expected to achieve at his appropriate mental age.<sup>1</sup>

New raters sometimes confuse this parameter with *Play, hobbies, and interests*. The distinction lies in learning demanding a sustained interest or focus and presenting a challenge to the child, particularly in the context of school. Play is self-directed, not necessarily goal oriented and may be more fantasy based rather than reality based. An example of where play would become recreational learning might be if a child's interest in trains prompted him to learn the engineering histories of UK trains and how they differ from American trains.

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<sup>1</sup> Mental age is a more appropriate criterion than chronological age as it incorporates circumstances that may interfere with the child's potential attainment, e.g. learning disabilities.



#### ABILITY TO TOLERATE FRUSTRATION AND CONTROL IMPULSES

This parameter addresses the child's capacity to control their frustration and other impulses in public and private situations. These reactions may be a response to internal urges or external demands. Examples may be the child's reaction when told 'no', their response to activities that require tenacity or their capacity to wait for a desired event or situation. Other impulses may refer to limiting sexual exploration to appropriate situations and people, managing food and drink intake and turn taking.

While it is expected, particularly with younger children, that their ability to control impulses will be stronger in public situations than private, it is not expected to exceed age appropriate levels or persist to a degree which interferes with family life. Because of these differences, it is important to consider the child's functioning across situations.

For children functioning at the highest levels, evidence of accomplished impulse control may be the absence of incident information. These children are working well in school, able to follow community and family rules, and can negotiate with peers and siblings.

#### RELATIONSHIPS PARAMETERS

The parameters that reflect the child's relationship with another person share common characteristics not present in the other parameters. The primary differences are the presence of a second person's experience of the relationship and the potential discrepancy between the two people's experience of the relationship; which might again differ from the absolute level of health represented.

To address this, the HCAM focuses on the absolute level of health. How successfully the two individuals have been able to sustain a consistent, stimulating and supportive relationship. In some situations there may be circumstances that limit the child's capacity for a fully developed relationship. If these circumstances are unconditional in nature, e.g. physical disability, they should certainly be considered when coding. However, if these circumstances are less absolute, e.g. parental mental health, they should not be considered and the score would be brought down accordingly.

#### RELATIONSHIP WITH PRIMARY CAREGIVER

This parameter reflects the extent to which the child and his primary caregiver are able to enjoy a supportive, spontaneous and consistent relationship. It is expected that the pair will enjoy spending time together, although the quantity and type will vary with the child's age and financial circumstances. At the higher range there will be a feeling of trust between the two individuals. The child trusts the adult to offer fair, appropriate and understandable discipline and to be available for emotional and practical assistance when required, without being over-bearing or intrusive. The adult trusts the child to explore their increasing independence without abusing parental good will, to remain informed about important events and decision-making and to be included in the child's daily life, varying to an extent with age. At the lower ranges, one or both of the individuals may be preoccupied with separation, there may be a lack of regard manifesting as verbal or physical aggression or role reversal within the relationship. Rather than pleasure, time together may be characterised by arguments and lack of containment, or clinging, whining behaviour.

There may be secondary elements affecting the child's relationship with caregiver. For example, the child's antagonist relationship with sibling may make family time together troubled and uncomfortable. However, regardless of cause or secondary features, this parameter should focus on the relationship between the two individuals as it currently manifests.

#### RELATIONSHIP WITH SECONDARY CAREGIVER

This parameter is coded along similar criteria as the one above, although special concessions are considered given the differences in relationship. These differences are expected to be less daily contact, left emotional intimacy and less care-taking responsibilities. However, differences in warmth and enjoyment are not expected, nor are feelings of security or attachment compromised.

A particular issue pertinent to this parameter is how to rate an absent or semi-absent parent. Parents that have been absent for more than twelve months without contact are not scored, although reactions to this absence may manifest in other parameters. As a general guide, it may be expected that parents showing neglect and a lack of enjoyment with their child will score between 60 and 75. Scores between 60 and 45 show a varying degree of damage to the child's development and beyond 45 maintaining separation between child and parent might be considered.

#### RELATIONSHIPS WITH SIBLINGS

This parameter addresses the relationship between siblings of any sex or family structure, i.e. step- and half siblings as well as full siblings. It is expected that, overall, siblings are regarded positively; as a source of companionship and mutual-support. Disputes would rarely result in physical aggression and would not occur so frequently as to disrupt family life. Equally, while able to do so, most children would prefer to play solely with peers, rather than siblings.

For some children there may be siblings living outside the home or who are adults with families of their own, and contact between siblings would reflect these circumstances. There may be occasions when these siblings are coded with less weight than those living within the home, or in rare circumstances in the *Adults* parameter. However, this should not be confused with situations that are not unqualified circumstances, where the absolute level of functioning should be considered. Examples of these would be situations where the coder feels the relationship would be immediately altered if the children no longer shared rooms, or, considering parental demands to care for a younger sibling, the relationship between children is relatively sound.

For some children with more than one sibling, their relationship with one sibling may be significantly better or worse than the other(s). If this more disturbed relationship falls within the type discussed in the previous category, it would be given less weight than the more adequate relationship. In situations where the relationships are of equal importance, a mean would be represented.

#### RELATIONSHIPS WITH PEERS OUTSIDE THE FAMILY

This parameter focuses on how well the child is able to make use of the peers around him. Elements to be considered concern quality as well as quantity. When comparing a child who has a large group of friends with one who has one or two, there is no absolute difference, and it would be important to look at the quality of those relationships and reasons for why the first child does not have more intimacy and the second more variety; keeping in mind coding reflects absolute levels of functioning.

The quality of relationships is a mixture of activities shared and emotional support. It is expected that the children can share a variety of different experiences in an equal and reciprocal way. While arguments will occur, neither child consistently takes advantage of the other and negotiations between the children resolve most dilemmas in a reasonable time. Secrets and worries can be shared and appropriate confidences will be kept. Advice may be sought, particularly in areas of peer interactions where adults are seen as less expert, and a range of ages and sexes are associated with comfortably.

Like the Relationship with sibling parameter, many children's relationships are dependent on parental support and guidance. It is worth keeping in mind that, like all HCAM parameters, this scale reflects the child's absolute level of functioning, rather than how well they are able to function within their particular context.

#### RELATIONSHIPS WITH ADULTS OUTSIDE THE IMMEDIATE FAMILY

This parameter reflects the child's ability to maintain casual and enduring relationships with adults outside their own immediate family. While some children may have the experience of godparents or friends of their family who become friends of the child in their own right, other children without this experience should not be penalised. However, all children would be expected to respond appropriately to introductions, necessary interventions from health-care professionals and be comfortable remaining with appropriate, if unfamiliar, carers (e.g. teachers, school nurse, baby-sitters). Parents will confidently allow their children to spend time with other adults without fear of embarrassment or undue behavioural trouble.

At the higher end of the scale, adults may be seen as a source of knowledge, support and potential resources. Children may be curious about their parent's friends, without being overly dependent or spending time 'showing off' when guests come to the house. For children who are able to have autonomous relationships with adults, these may be a source of confidence, serving as both entertainment and confidante.

For some children, adults outside their immediate circle may include aunts, cousins or grandparents and this decision will need to be determined by the rater. As a general rule, adults within the immediate family are those living within the child's household.

#### DEVELOPMENT OF CONFIDENCE AND SELF-ESTEEM

This parameter targets two areas of the child's development. The first is how successfully the child can feel pleasure and a realistic sense of pride in his progress and achievements. The second is the child's persistence in the face of challenges and resilience during setbacks.

It is expected that children will wish to share their achievements, without resorting to inappropriate boasting or showing-off, and they will have a good sense of where their strengths and weakness lie. Areas in which the child does feel less sure of, either in appearance or skill, are acknowledge but not debilitating. Difficulties may be met with hesitation but ultimately the child will have enough experience of success to try or approach something new.

Although this parameter is prompted for directly, it often manifests in other parameters. For example, the child's approach to difficult tasks in the *Learning and work* parameter, new situations in the *Play* parameter, reactions to setbacks like being bullied or friend being cruel in the *Relationship with peers* parameter and reactions to changes during puberty from the *Sexual development* parameter.

#### CAPACITY TO COPE WITH VERY STRESSFUL EVENTS

This parameter addresses the child's ability to continue adaptive functioning in the face of stressful events. These events may be daily stressors, such as school requirements or household responsibilities; moderate stressors such as moving house; or more significant stressors such as death of an important person.

Children may be expected to have a number of adaptive mechanisms to cope with stressful events. For example, these may be verbalising the difficulty, seeking out support and guidance from appropriate people, sleeping with cuddly toys or other forms of regression. The important aspect to focus on is the discrepancy between the intensity of stressor and the child's reaction to it. Under extreme stressors, such as prolonged physical abuse, some children may show symptomatology which in other circumstances would be coded more strictly, or behaviour such as regression which may be considered adaptive in that particular context.

Like the parameter *Ability to Tolerate Frustration and Control Impulses*, children exhibiting the highest levels of functioning in this parameter, may be characterised by lack of negative behaviour. As a general rule, all children experience stress in their daily lives, e.g. school demands, negotiation of peer relationships and thwarting of requests. If the interview informant shows no evidence of reacting to this stress, it may be assumed that the child is coping with the stress adaptively.

#### LEVEL AND STABILITY OF MOOD

This parameter targets the underlying mood of the child as well as its variability. It is expected that the overall mood of the child will be relatively equable and benign, without rapid fluctuations or large mood swings. At

the same time, the child should be sufficiently responsive to his own internal feelings and to the external world to show mood appropriate to the situation, with neither over- nor under-reaction.

Difficult moods would not last for an extended length of time, nor would they escalate into sulks or violence. Although occasionally the child may need an outside influence to change a difficult mood, this would be a rare occurrence and predominately the child is able to do this for himself.

It is assumed that difficult moods within a family context are coded less severely than moodiness with peers or outside the home. It is important to consider withdrawn moods as well as acting out moods, as informants usually remark less on these.

### SEXUAL DEVELOPMENT

This parameter focuses on whether or not the child shows recognition of, and pride in, his gender identity. This stems firstly from being at ease with age and culturally appropriate sexual knowledge. Secondly, from an appropriate attitude towards his body, gender and in particular, any current or future changes.

The child might be expected to ask family or other adults questions about the body and general sexual matters. If there other older siblings present, this might be a particular area of curiosity. Current or future changes in the child's appearance and circumstances due to growing older are a source of anticipation and pride, i.e. menarche, growth spurts, having girl/boy friend.

The child will be expected to develop a sense of his body as his own, and corresponding modesty and desire for self care-taking will ensue. While mixing with children of both sexes is equally comfortable, attitudes towards the opposite sex may change, particularly for the higher age bands. Appropriate reactions to sexual stimulus in environment, i.e. TV, are also present and might be embarrassment, interest or mild silliness, depending on the child's age and character. It is important to keep in mind the cultural context of the family.

### PLAY, HOBBIES, INTERESTS

This parameter focuses on the recreational interests of the child. Areas to be aware of are the range of activities, i.e. is the child able to engage in physical activities, creative pursuits, imaginative games and activities requiring concentration. Alternatively, lower functioning children may pursue activities of one type, e.g. play only football and running or chasing games, or entirely passive activities, e.g. television or Sega. This should not be confused with children who are able to engage in a range of activities, but may focus on a particular interest. For example, some children who love football play the game, read the magazines, draw the costumes and memorise the statistics.

While peer and sibling relationship will be related to this parameter, it is important to focus here on the quality of the activities, how well the child is able to engage in a variety of spontaneous and unencumbered activities, rather than the social circumstances of the activity.

**APPENDIX 6.1: EXCERPT FROM THE VINELAND ADAPTIVE  
BEHAVIOUR SCALES (VABS)**

ITEM  
SCORES

2 Yes, usually  
1 Sometimes or partially  
0 No, never  
N No opportunity  
DK Don't know

**COMMUNICATION DOMAIN**

- <1 1. Turns eyes and head toward sound.
2. Listens at least momentarily when spoken to by caregiver.
3. Smiles in response to presence of caregiver.
4. Smiles in response to presence of familiar person other than caregiver.
5. Raises arms when caregiver says, "Come here" or "Up."
6. Demonstrates understanding of the meaning of "no."
7. Imitates sounds of adults immediately after hearing them.
8. Demonstrates understanding of the meaning of at least 10 words.
9. Gestures appropriately to indicate "yes," "no," and "I want."
10. Listens attentively to instructions.
11. Demonstrates understanding of the meaning of "yes" or "okay."
12. Follows instructions requiring an action and an object.
13. Points accurately to at least one major body part when asked.
14. Uses first names or nicknames of siblings, friends, or peers, or states their names when asked.
15. Uses phrases containing a noun and a verb, or two nouns.
16. Names at least 20 familiar objects without being asked.  
DO NOT SCORE 1.
17. Listens to a story for at least five minutes.
18. Indicates preference when offered a choice.
- 2 19. Says at least 50 recognizable words. DO NOT SCORE 1.
20. Spontaneously relates experiences in simple terms.
21. Delivers a simple message.
22. Uses sentences of four or more words.
23. Points accurately to all body parts when asked. DO NOT SCORE 1.
24. Says at least 100 recognizable words. DO NOT SCORE 1.
25. Speaks in full sentences.
26. Uses "a" and "the" in phrases or sentences.
27. Follows instructions in "if-then" form.
28. States own first and last name when asked.
29. Asks questions beginning with "what," "where," "who," "why," and "when." DO NOT SCORE 1.
- 3, 4 30. States which of two objects not present is bigger.
31. Relates experiences in detail when asked.
32. Uses either "behind" or "between" as a preposition in a phrase.
33. Uses "around" as a preposition in a phrase.

Count items before basal as 2, items after ceiling as 0.

COMMENTS

**RECEPTIVE**

**EXPRESSIVE**

**WRITTEN**

24 42 0

Sum of 2s, 1s, 0s page 2

### APPENDIX 6.2: THE CHILD BEHAVIOUR CHECKLIST (CBCL)

Child I.D. Number \_\_\_\_\_ Date of birth \_\_\_\_\_ Date \_\_\_\_\_

Below is a list of items that describe children. For each item that describes your child now or within the past 6 months, please circle the 2 if the item is very true of your child. Circle 1 if the item is somewhat or sometimes true of your child. If the item is not true of your child, circle the 0. Please answer all items as well as you can, even if some do not seem to apply.

0 = Not True (as far as you know)

1 = Somewhat or Sometimes True

2 = Very True or Often True

- |   |   |   |     |  |   |   |   |     |   |
|---|---|---|-----|--|---|---|---|-----|---|
| 0 | 1 | 2 | 1.  | Acts too young for his/her age   | 0 | 1 | 2 | 30. | Fears going to school                         |
| 0 | 1 | 2 | 2.  | Allergy(describe)  | 0 | 1 | 2 | 31. | Fears he/she might think or do something bad  |
| 0 | 1 | 2 | 3.  | Argues a lot   | 0 | 1 | 2 | 32. | Feels he/she has to be perfect                |
| 0 | 1 | 2 | 4.  | Asthma   | 0 | 1 | 2 | 33. | Feels or complains that no one loves him/her  |
| 0 | 1 | 2 | 5.  | Behaves like opposite sex  | 0 | 1 | 2 | 34. | Feels others are out to get him/her           |
| 0 | 1 | 2 | 6.  | Bowel movements outside toilet   | 0 | 1 | 2 | 35. | Feels worthless or inferior                   |
| 0 | 1 | 2 | 7.  | Bragging, boasting   | 0 | 1 | 2 | 36. | Gets hurt a lot, accident-prone               |
| 0 | 1 | 2 | 8.  | Can't concentrate, can't pay attention for long                            | 0 | 1 | 2 | 37. | Gets in many fights                           |
| 0 | 1 | 2 | 9.  | Can't get his/her mind off certain thoughts: obsessions (describe)         | 0 | 1 | 2 | 38. | Gets teased a lot                             |
| 0 | 1 | 2 | 10. | Can't sit still, restless, or hyperactive                                  | 0 | 1 | 2 | 39. | Hangs around with children who get in trouble |
| 0 | 1 | 2 | 11. | Clings to adults or too dependent  | 0 | 1 | 2 | 40. | Hears things that aren't there (describe)     |
| 0 | 1 | 2 | 12. | Complains of loneliness  | 0 | 1 | 2 | 41. | Impulsive or acts without thinking            |
| 0 | 1 | 2 | 13. | Confused or seems to be in a fog   | 0 | 1 | 2 | 42. | Likes to be alone                             |
| 0 | 1 | 2 | 14. | Cries a lot  | 0 | 1 | 2 | 43. | Lying or cheating                             |
| 0 | 1 | 2 | 15. | Cruel to animals   | 0 | 1 | 2 | 44. | Bites fingernails                             |
| 0 | 1 | 2 | 16. | Cruelty, bullying or meanness to others                                    | 0 | 1 | 2 | 45. | Nervous, high-strung, or tense                |
| 0 | 1 | 2 | 17. | Day-dreams or gets lost in his/her thoughts                                | 0 | 1 | 2 | 46. | Nervous movements or twitching (describe)     |
| 0 | 1 | 2 | 18. | Deliberately harms self or attempts suicide                                | 0 | 1 | 2 | 47. | Nightmares                                    |
| 0 | 1 | 2 | 19. | Demands a lot of attention   | 0 | 1 | 2 | 48. | Not liked by other children                   |
| 0 | 1 | 2 | 20. | Destroys his/her own things  | 0 | 1 | 2 | 49. | Constipated, doesn't move bowels              |
| 0 | 1 | 2 | 21. | Destroys things belonging to his/her family to other or other children     | 0 | 1 | 2 | 50. | Too fearful or anxious                        |
| 0 | 1 | 2 | 22. | Disobedient at home  | 0 | 1 | 2 | 51. | Feels dizzy                                   |
| 0 | 1 | 2 | 23. | Disobedient at school  | 0 | 1 | 2 | 52. | Feels too guilty                              |
| 0 | 1 | 2 | 24. | Doesn't eat well   | 0 | 1 | 2 | 53. | Overeating                                    |
| 0 | 1 | 2 | 25. | Doesn't get along with other children                                      | 0 | 1 | 2 | 54. | Overtired                                     |
| 0 | 1 | 2 | 26. | Doesn't seem to feel guilty after misbehaving                              | 0 | 1 | 2 | 55. | Overweight                                    |
| 0 | 1 | 2 | 27. | Easily jealous   |   |   |   | 56. | Physical problems without known medical cause |
| 0 | 1 | 2 | 28. | Eats or drinks things that are not food (describe)                         | 0 | 1 | 2 | a)  | Aches or pains                                |
|   |   |   |     |  | 0 | 1 | 2 | b)  | Headaches                                     |
|   |   |   |     |  | 0 | 1 | 2 | c)  | Nausea, feels sick                            |
|   |   |   |     |  | 0 | 1 | 2 | d)  | Problems with eyes                            |
| 0 | 1 | 2 | 29. | Fears certain animals, situations, or places, other than school (describe) |   |   |   |     |   |

0	1	2	56.	e) Rashes or other skin problems	0	1	2	86.	Stubborn, sullen, or irritable
0	1	2		f) Stomach aches or cramps	0	1	2	87.	Sudden changes in mood or feelings
0	1	2		g) Vomiting or throwing up	0	1	2	88.	Sulks a lot
0	1	2		h) Other (describe)	0	1	2	89.	Suspicious
0	1	2	57.	Physically attacks people	0	1	2	90.	Swearing or obscene language
0	1	2	58.	Picks nose, skin, or other parts of body (describe)	0	1	2	91.	Talks about killing self
0	1	2	59.	Plays with own sex parts in public	0	1	2	92.	Talks or walks in sleep (describe)
0	1	2	60.	Plays with own sex parts too much	0	1	2	93.	Talks too much
0	1	2	61.	Poor school work	0	1	2	94.	Teases a lot
0	1	2	62.	Poorly co-ordinated or clumsy	0	1	2	95.	Temper tantrums or hot temper
0	1	2	63.	Prefers playing with older children	0	1	2	96.	Thinks about sex too much
0	1	2	64.	Prefers playing with younger children	0	1	2	97.	Threatens people
0	1	2	65.	Refuses to talk	0	1	2	98.	Thumb-sucking
0	1	2	66.	Repeats certain acts over and over: compulsions(describe)	0	1	2	99.	Too concerned with neatness or cleanliness
0	1	2	67.	Runs away	0	1	2	100.	Trouble sleeping (describe)
0	1	2	68.	Screams a lot	0	1	2	101.	Truancy, skips school
0	1	2	69.	Secretive, keeps things to self	0	1	2	102.	Underactive, slow moving, or lacks energy
0	1	2	70.	Sees things that aren't there	0	1	2	103.	Unhappy, sad or depressed
0	1	2	71.	Self-conscious or easily embarrassed	0	1	2	104.	Unusually loud
0	1	2	72.	Sets fires	0	1	2	105.	Uses alcohol or drugs (describe)
0	1	2	73.	Sexual problems (describe)	0	1	2	106.	Vandalism
0	1	2	74.	Showing off and clowning	0	1	2	107.	Wets self during the day
0	1	2	75.	Shy or timid	0	1	2	108.	Wets the bed
0	1	2	76.	Sleeps less than most children	0	1	2	109.	Whining
0	1	2	77.	Sleeps more than most children during the day and/or night (describe)	0	1	2	110.	Wishes to be of opposite sex
0	1	2	78.	Smears or plays with bowel movements	0	1	2	111.	Withdrawn, doesn't get involved with others
0	1	2	79.	Speech problem (describe)	0	1	2	112.	Worrying
0	1	2	80.	Stares blankly	0	1	2	113.	Please write in any problems your child has that were not listed above:
0	1	2	81.	Steals at home					
0	1	2	82.	Steals outside the home					
0	1	2	83.	Stores up things he/she doesn't need (describe)					
0	1	2	84.	Strange behaviour describe					
0	1	2	85.	Strange ideas (describe)					



**APPENDIX 6.3: EXCERPT FROM THE SOCIAL COMPETENCE SCALE**

Father's type of work \_\_\_\_\_ Mother's type of work \_\_\_\_\_

This form is filled out by:

Mother \_\_\_\_\_ Father \_\_\_\_\_ Other (specify) \_\_\_\_\_

I. Please list the sports your child most likes to take part in. For example: swimming, football, skate boarding, bike-riding, fishing, etc.

None \_\_\_\_\_ a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

Compared to other children of the same age, about how much time does he/she spend in each?

a. don't know	b. less than average	c. average	d. more than average
a) .....	.....	.....	.....
b) .....	.....	.....	.....
c) .....	.....	.....	.....

Compared to other children of the same age, how well does he/she play each sport?

a. don't know	b. less than average	c. average	d. above average
a) .....	.....	.....	.....
b) .....	.....	.....	.....
c) .....	.....	.....	.....

II. Please list your child's favourite hobbies, activities, and games, other than sports. For example: stamps, dolls, books, piano, crafts, singing, etc. (Do not include TV).

None \_\_\_\_\_ a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

Compared to other children of the same age, about how much time does he/she spend in each?

don't know	less than average	average	above average
a) .....	.....	.....	.....
b) .....	.....	.....	.....
c) .....	.....	.....	.....

Compared to other children of the same age, how well does he/she do each one?

don't know	below	average	average	above average
a) .....	.....	.....	.....	.....
b) .....	.....	.....	.....	.....
c) .....	.....	.....	.....	.....

III. Please list any organisations, clubs, teams, or groups your child belongs to:

None.....a).....b).....c).....

Compared to other children of the same age, how active is he/she in each?

don't know	less active	average	more active
a) .....	.....	.....	.....
b) .....	.....	.....	.....
c) .....	.....	.....	.....

IV. Please list any jobs or chores your child has. For example: paper round, baby-sitting, making bed.

None.....a).....b).....c).....

V.

1. About how many close friends does your child have?

None..... 1..... 2 or 3..... 4 or more.....

2. About how many times a week does your child do things with them?

less than 1..... 1 or 2..... 3 or more.....

VI. Compared to other children of his/her age, how well does your child:

- Get along with his/her brothers and sisters?
- Get along with other children?
- Behave with his/her parents?
- Play and work by himself/herself?

	Worse	About the same	Better
a. ....	.....	.....	.....
b. ....	.....	.....	.....
c. ....	.....	.....	.....
d. ....	.....	.....	.....

VII.

1. Current school performances - for children aged 6 and older:

Check here if the child does not attend school.....

	Failing	Below Average	Average	Above Average
a. Reading/English	.....	.....	.....	.....
b. Writing	.....	.....	.....	.....
c. Arithmetics	.....	.....	.....	.....
d. Spelling	.....	.....	.....	.....

2. Is your child in a special class?

No..... Yes (what kind?).....

**APPENDIX 6.4: EXCERPT FROM HARTER SELF-PERCEPTION  
PROFILES (WHAT AM I LIKE : PEOPLE IN MY LIFE)**

**What I Am Like**

Version 8

Name \_\_\_\_\_ Age \_\_\_\_\_ Birthday \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_ Group \_\_\_\_\_

Boy or Girl (circle which)

SAMPLE SENTENCE

	Really True for me	Sort of True for me			Sort of True for me	Really True for me
(a)	<input type="checkbox"/>	<input type="checkbox"/>	Some kids would rather play outdoors in their spare time	BUT	Other kids would rather watch T.V.	<input type="checkbox"/>

1.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids feel that they are <i>very good</i> at their school work	BUT	Other kids <i>worry about</i> whether they can do the school work they are given.	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids find it <i>hard</i> to make friends	BUT	Other kids find it's pretty easy to make friends.	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids do <i>very well</i> at all kinds of sports	BUT	Other kids <i>don't</i> feel that they are very good when it comes to sports.	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids are <i>happy</i> with the way they look	BUT	Other kids are <i>not</i> happy with the way they look.	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids often do <i>not</i> like the way they <i>behave</i>	BUT	Other kids usually <i>like</i> the way they behave.	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids are often <i>unhappy</i> with themselves	BUT	Other kids are pretty <i>pleased</i> with themselves.	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids feel like they are <i>just as clever</i> as as other kids their age	BUT	Other kids aren't so sure and <i>wonder</i> if they are as clever.	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have <i>alot</i> of friends	BUT	Other kids <i>don't</i> have very many friends.	<input type="checkbox"/>

## PEOPLE IN MY LIFE

Name \_\_\_\_\_  
 (First) (Last)

	Really True for Me	Sort of True for Me	Sample Item	Sort of True for Me	Really True for Me		
	<input type="checkbox"/>	<input type="checkbox"/>	Some kids like to do fun things with a lot of other people	BUT	Other kids like to do fun things with just a few people.	<input type="checkbox"/>	<input type="checkbox"/>
1.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have parents who <i>don't</i> really understand them	BUT	Other kids have parents who really <i>do</i> understand them.	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have classmates who like them the way they are	BUT	Other kids have classmates who wish they were <i>different</i> .	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have a teacher who <i>helps</i> them if they are <i>upset</i> and have a problem	BUT	Other kids <i>don't</i> have a teacher who helps them if they are upset and have a problem.	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have a close friend who they can tell <i>problems</i> to	BUT	Other kids <i>don't</i> have a close friend who they can tell problems to.	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have parents who <i>don't</i> seem to want to hear about their children's problems	BUT	Other kids have parents who <i>do</i> want to <i>listen</i> to their children's problems.	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have classmates that they can become friends with	BUT	Other kids <i>don't</i> have classmates that they can become friends with.	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids <i>don't</i> have a teacher who <i>helps</i> them to do their very best	BUT	Other kids <i>do</i> have a teacher who <i>helps</i> them to do their very best.	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have a close friend who really understands them	BUT	Other kids <i>don't</i> have a close friend who understands them.	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have parents who <i>care</i> about their feelings	BUT	Other kids have parents who <i>don't</i> seem to care very much about their children's feelings.	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have classmates who sometimes make fun of them	BUT	Other kids <i>don't</i> have classmates who make fun of them.	<input type="checkbox"/>	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids <i>do</i> have a teacher who <i>cares</i> about them	BUT	Other kids <i>don't</i> have a teacher who cares about them.	<input type="checkbox"/>	<input type="checkbox"/>

(OVER)

## **APPENDIX 6.5: EXCERPT FROM THE CHILDREN'S DEPRESSION INVENTORY (CDI)**

Kids sometimes have different feelings and ideas.

This form lists the feelings and ideas in groups. From each group, pick one sentence that describes you best for the past two weeks. After you pick a sentence from the first group, go on to the next group.

There is no right answer or wrong answer. Just pick the sentence that best describes the way you have been recently.

Circle the sentence that you want to pick for your answer.

Here is an example of how this form works. Try it. Circle the sentence that describes you best.

Example:

- ☐ I read all the time
- ☐ I read books once in a while
- ☐ I never read books

Remember pick out the sentences that best describe you feelings and ideas in the past two weeks

1. ☐ I am sad once in a while  
☐ I am sad many times  
☐ I am sad all the time
2. ☐ Nothing will ever work out for me  
☐ I am not sure if things will work out for me  
☐ Things will work out for me OK
3. ☐ I do most things OK  
☐ I do many things wrong  
☐ I do everything wrong
4. ☐ I have fun in many things  
☐ I have fun in some things  
☐ Nothing is fun at all
5. ☐ I am bad all the time  
☐ I am bad many times  
☐ I am bad once in a while
6. ☐ I think about bad things happening to me once in a while  
☐ I worry that bad things will happen to me  
☐ I am sure that terrible things will happen to me
7. ☐ I hate myself  
☐ I do not like myself  
☐ I like myself
8. ☐ All bad things are my fault  
☐ Many bad things are my fault  
☐ Bad things are not usually my fault

Remember to pick sentences that best describe you feelings and ideas in the past two weeks

9. ☐ I do not think about killing myself  
☐ I think about killing myself but I would not do it  
☐ I want to kill myself
10. ☐ I feel like crying everyday  
☐ I feel like crying many days  
☐ I feel like crying once in a while
11. ☐ Things bother me all the time  
☐ Things bother me many times  
☐ Things bother me once in a while
12. ☐ I like being with people  
☐ I do not like being with people many times  
☐ I do not want to be with people at all
13. ☐ I cannot make up my mind about things  
☐ It is hard to make up my mind about things  
☐ I make up my mind about things easily
14. ☐ I look OK  
☐ There are some bad things about my looks  
☐ I look ugly
15. ☐ I have to push myself all the time to do my school work  
☐ I have to push myself many times to do my school work  
☐ Doing school work is not a problem
16. ☐ I have trouble sleeping every night  
☐ I have trouble sleeping many nights  
☐ I sleep pretty well
17. ☐ I am tired once in a while  
☐ I am tired many days  
☐ I am tired all the time
18. ☐ Most days I do not feel like eating  
☐ Many days I do not feel like eating  
☐ I eat pretty well
19. ☐ I do not worry about aches and pains  
☐ I worry about aches and pains many times  
☐ I worry about aches and pains all the time
20. ☐ I do not feel alone  
☐ I feel alone many times  
☐ I feel alone all the time
21. ☐ I never have fun at school  
☐ I have fun at school only once in a while  
☐ I have fun at school many times
22. ☐ I have plenty of friends  
☐ I have some friends but I wish I had more  
☐ I do not have any friends

## **APPENDIX 6.6: STATE-TRAIT ANXIETY INVENTORY FOR CHILDREN (STAI-C)**

### **How I Feel Questionnaire**

Developed by C.D. Spielberger, C.D. Edwards, J. Montouri and R. Lushene  
STAIC FORM C-1

DIRECTIONS: A number of statements which boys and girls use to describe themselves are given below. Read each statement carefully and decide how you feel *right now*. Then put an X in the box in front of the word or phrase which best describes how you feel. There are no right or wrong answers. Do not spend too much time on any one statement. Remember, find the word or phrase which best describes how you feel right now at *this very moment*.

- |                 |                 |            |                |
|-----------------|-----------------|------------|----------------|
| 1. I feel.....  | very calm       | calm       | not calm       |
| 2. I feel.....  | very upset      | upset      | not upset      |
| 3. I feel.....  | very pleasant   | pleasant   | not pleasant   |
| 4. I feel.....  | very nervous    | nervous    | not nervous    |
| 5. I feel.....  | very jittery    | jittery    | not jittery    |
| 6. I feel.....  | very rested     | rested     | not rested     |
| 7. I feel.....  | very scared     | scared     | not scared     |
| 8. I feel.....  | very relaxed    | relaxed    | not relaxed    |
| 9. I feel.....  | very worried    | worried    | not worried    |
| 10. I feel..... | very satisfied  | satisfied  | not satisfied  |
| 11. I feel..... | very frightened | frightened | not frightened |
| 12. I feel..... | very happy      | happy      | not happy      |
| 13. I feel..... | very sure       | sure       | not sure       |
| 14. I feel..... | very good       | good       | not good       |
| 15. I feel..... | Very troubled   | troubled   | not troubled   |
| 16. I feel..... | Very bothered   | bothered   | not bothered   |
| 17. I feel..... | Very nice       | nice       | not nice       |
| 18. I feel..... | Very terrified  | terrified  | not terrified  |
| 19. I feel..... | Very mixed-up   | mixed-up   | not mixed-up   |
| 20. I feel..... | Very cheerful   | cheerful   | not cheerful   |

DIRECTIONS: A number of statements which boys and girls use to describe themselves are given below. Read each statement and decide if it is *hardly-ever*, or *sometimes*, or *often* true for you.. Then for each statement, put an X in the box in front of the word that seems to describe you the best. There are no right or wrong answers. Do not spend too much time on any one statement. Remember, choose the word which best seems to describe how you usually feel.

- |   |                          |             |                          |           |                          |       |
|---|--------------------------|-------------|--------------------------|-----------|--------------------------|-------|
| 1. I worry about making mistakes.....                           | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 2. I feel like crying.....                                      | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 3. I feel unhappy.....  | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 4. I have trouble making up my mind.....                        | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 5. It is difficult for me to face my problems.....              | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 6. I worry too much.....  | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 7. I get upset at home.....                                     | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 8. I am shy.....  | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 9. I feel troubled.....   | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 10. Unimportant thoughts run through my head and bother me..... | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 11. I worry about school.....                                   | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 12. I have trouble deciding what to do.....                     | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 13. I notice my heart beats fast.....                           | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 14. I am secretly afraid.....                                   | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 15. I worry about my parents.....                               | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 16. My hands get sweaty.....                                    | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 17. I worry about things that may happen....                    | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 18. It is hard for me to fall asleep at night....               | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 19. I get a funny feeling in my stomach.....                    | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 20. I worry about what others think of me...                    | <input type="checkbox"/> | hardly ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |



**APPENDIX 6.7: EXCERPT FROM THE CHILD AND ADOLESCENT  
FUNCTIONAL ASSESSMENT SCALE (CAFAS)**

Youth's Name \_\_\_\_\_ ID # \_\_\_\_\_

	<b>Severe Impairment</b> <i>Severe disruption or incapacitation (30)</i>	<b>Moderate Impairment</b> <i>Major or persistent disruption (20)</i>	<b>Mild Impairment</b> <i>Significant problems or distress (10)</i>	<b>Minimal or No Impairment</b> <i>No disruption of functioning (0)</i>
<b>ROLE PERFORMANCE</b>  School/Work Subscale  <div style="border: 1px solid black; width: 50px; height: 30px; margin: 10px auto;"></div>	001 Out of job or school due to behavior (e.g., asked to leave or refuses to attend).  002 Expelled or equivalent from school.  003 Judged to be a threat to others because of aggressive potential (i.e., resulting from youth's actions or statements); monitoring or supervision needed.  004 Harmed or made serious threat to hurt a teacher/peer/co-worker/supervisor.  005 Unable to meet minimum requirements for behavior in classroom (either in regular or specialized classroom in public school or equivalent) without special accommodations.  006 Chronic truancy resulting in negative consequences (e.g., loss of course credit, failing courses or tests, parents notified).  007 Chronic absences, other than truancy, resulting in negative consequences (e.g., loss of course credit, failing courses or tests, parents notified).  008 Disruptive behavior, related to poor attention or high activity level, persists despite the youth having been placed in a special learning environment or receiving a specialized program or treatment.  009 Failing all or most classes.  010 Dropped out of school and holds no job.	012 Non-compliant behavior which results in persistent or repeated disruption of group functioning or becomes known to authority figures other than classroom teacher (e.g., principal) because of severity and/or chronicity.  013 Inappropriate behavior which results in persistent or repeated disruption of group functioning or becomes known to authority figures other than classroom teacher (e.g., principal) because of severity and/or chronicity.  014 Frequently truant (i.e., approximately once every two weeks or for several consecutive days).  015 Frequent absences from school (i.e., approximately once every two weeks or for several consecutive days) due to impairing behavior and excluding truancy or physical illness.  016 At work, missed days or tardiness results in reprimand or equivalent.  017 Behavior is disruptive, related to poor attention or high activity level, resulting in individualized program or specialized treatment being needed or implemented.  018 Receiving a reprimand, warning, or equivalent at work.  019 Grade average is lower than "C" and is not due to lack of ability or any mental or physical disabilities.  020 Failing at least half of courses and this is not due to lack of ability or any mental or physical disabilities.	022 Non-compliant behavior results in teacher or immediate supervisor bringing attention to problems or structuring youth's activities so as to avoid predictable difficulties, more than other youth.  023 Inappropriate behavior results in teacher or immediate supervisor bringing attention to problems or structuring youth's activities so as to avoid predictable difficulties, more than other youth.  024 Occasionally disobeys school rules, with no harm to others or to property, more than other youth.  025 Problems in school, related to poor attention or high activity level, are present but are not disruptive to the classroom (can be managed in the regular classroom, with the youth able to achieve satisfactorily).  026 School/work productivity is less than expected for abilities due to failure to execute assignments correctly, complete work, hand in work on time, etc.	028 Reasonably comfortable and competent in relevant roles.  029 Minor problems satisfactorily resolved.  030 Functions satisfactorily even with distractions.  031 School grades are average above.  032 Schoolwork is commensurate with ability and youth is mentally retarded.  033 Schoolwork is commensurate with ability and youth is learning disabled.  034 Schoolwork is commensurate with ability and youth is a slow learner.  035 Schoolwork is commensurate with ability and youth has a learning impairment due to maternal alcohol or drug use.  036 In a mostly vocational program and doing satisfactorily.  037 Graduated from high school or received GED.  038 Dropped out of school and working at a job or is actively looking for a job.
	011 EXCEPTION	021 EXCEPTION	027 EXCEPTION	039 EXCEPTION
	Explanation: _____ <span style="float: right;">COULD NOT SCORE</span>			