AN INVESTIGATION INTO DEPRESSION, ANXIETY, LOW SELF-ESTEEM AND EXTERNAL LOCUS OF CONTROL IN CHILDREN REFERRED TO A CHILD AND FAMILY MENTAL HEALTH SERVICE

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Doctorate in Clinical Psychology

University of Edinburgh, 2001

"This thesis has been composed by myself and the work contained herein is my own"

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ACKNOWLEDGMENTS

CONTENTS

ABSTRACT

Emotional and behavioural problems in childhood embrace an array of disorders ranging from depression, anxiety and chronic shyness to non-compliance, impulsiveness, stealing and aggression. Achenbach (1991) proposed a dimensional approach to conceptualising children's problems. The first dimension, consisting of emotional behaviours such as crying, worrying and withdrawal has been given the broad label of internalising behaviour problems. These disorders are most acutely troublesome for the child rather than their parents, carers or teachers. The second dimension, which targets dysregulated behaviours, such as aggressive and delinquent conduct problems has been termed externalising behaviour problems and often reflects a greater cost and challenge for society at large.

Psychological problems in children rarely occur in isolation; for example, a child with externalising behavioural problems may also suffer from depression and low self-esteem, another, who refuses to go to school, may display symptoms of anxiety and depression. In clinic studies about 25 per cent of referrals have a major depression (Carr, 1999). In a review of the most important epidemiological studies, Anderson (1994) concluded that the overall prevalence for anxiety disorders in children and adolescents is 2 to 9 per cent. Research also suggests that 50 per cent of children diagnosed as depressed are also anxious and that 25 per cent of children diagnosed with anxiety disorders are also depressed (Smith, 1999).

The expression and presentation of psychological difficulties in childhood can be varied and assessment does not always uncover the underlying features of psychological problems in children. Nevertheless, standardised measures of self-report can be useful and valid tools for assessing a child's own psychological experience. By tapping into specific areas of concern or difficulty for the child and offering the clinician an improved understanding of the child's inner emotional world these tools can make a valuable contribution to the overall therapeutic process.

The study aimed to investigate the incidence of anxiety and depression amongst children referred to one team of a Child and Family Mental Health Service in Edinburgh. Participants were children aged between 8 to 11-years. Self-report measures of anxiety, depression, self-esteem and locus of control were taken to determine whether a link could be found between these psychological constructs and internalising and externalising disorders and to determine the presence of comorbidity. In addition, a measure of parental stress was taken. The relationships between these factors will be explored, results will be given and conclusions reached.

1. INTRODUCTION

Childhood is a time of emotional, psychological and physical adjustment and growth. From birth, an infant begins to learn about, explore and make sense of its world. It learns that through physical and verbal action it can impact on its environment and in turn effect the actions of those who care for it. This learning and exploration will bring with it both pleasant and unpleasant experiences. The child's reaction to these experiences will depend on a range of factors such as early attachment experiences, temperament, genetic constitution and psychosocial factors. Children, like adults, are emotionally vulnerable and susceptible to the adverse effects of significant life events, which will affect their psychological well-being and normal functioning (Amato and Keith, 1991; Raschke, 1987; Silverman and Worden, 1993; Yule, 1994).

A growing body of research into childhood disorders means that psychologists can apply established and current theories and models to gain an understanding of psychological disorders in children (see Carr, 1999). Moreover, the differing problems, which bring children into treatment and children's response to therapeutic interventions has necessitated an increase in the amount of research addressing childhood psychological disorders and age appropriate therapeutic interventions. Increased public concern about how society treats its children has also paved the way for a greater interest in the study of childhood psychological problems. This is important, because if left untreated, children may rarely outgrow serious problems and may instead develop into adults with psychological disorders (Goodyer, Wright and Altham; 1988; Lynam, 1996; Robins & Price, 1991).

The following section provides an overview of the main psychological disorders of childhood and a clarification of the key points in relation to the current study.

1.1   Resilience Versus Vulnerability

What makes a child vulnerable or resilient is an important area of consideration in the study of psychological disorders in childhood. From conception, the individual is susceptible to the influences of environmental, biological and psychosocial factors, which may impact on his or her functioning in both positive and negative ways.

In some instances, perinatal influences, prematurity and birth complications have been found to be related to impairment in physical and psychological functioning in later life (Pasamanick and Knoblock, 1961), however, this impairment is more pronounced if social and environmental deprivation is also present (Werner and Smith, 1977). In addition, the child's genetic blueprint is also important in determining how they will interact with their environment and the challenges, which face them. Moreover, the psychological peculiarities of their parents or caregivers may impact on the way they perceive and learn about their world and their place in it.

1.2   Developmental Tasks

As a child grows and develops he or she is required to complete and master certain physical, cognitive and social tasks. These tasks range from forming attachments (Bowlby, 1969, 1973, 1980), developing motor and sensory skills (Vasta, Haith and Miller, 1995; Rutter and Rutter; Illingworth, 1966), language development (Chomsky, 1965; Vygotsky, 1962) and the mastering of emotional (Malatesta, 1985), moral (Kohlberg, 1978; Piaget, 1932) and cognitive (Piaget, 1926, 1950, 1953) skills.

The successful completion of these tasks leads to a sense of satisfaction and achievement and increases the likelihood that the individual will go on to achieve further tasks successfully (Bandura, 1981). Failure, however, is likely to result in distress and disappointment, not only from the individual themselves but also from society as a whole. Subsequently, this failure may lead to difficulty achieving other tasks successfully and result in the child experiencing low self-esteem and poor self-efficacy (Abramson, Seligman, Teasdale, 1978).

1.2.1 Stages of Cognitive Development

Piaget (1926, 1950, 1953) was interested in discovering the "normal course" of intellectual development. He viewed living organisms as self-regulating systems, interacting with and adapting to the environment via a process of equilibrium, accommodation and assimilation. Through a process of observation of reasoning tasks and play, Piaget identified four main stages in the development of thought in children.

- The Sensori-motor Period- (birth to 18 months)
- The Preoperational Period – (18 months to 7 years approximately)
- The Concrete Operational Period – (7 years to 11 years approximately)
- The Formal Operational Period (11 years and above)

In middle-childhood the Concrete Operational Period dominates and a brief description will be provided below.

1.2.2   Concrete Operations

During the primary school years the child becomes 'operational'. Operations are derived from Piaget's use of logico-mathematical models in the understanding of cognitive structures and are, as such, mental actions. The mental acts engaged in during this period involve combining, ordering, separating and recombining things. With the beginning of operations the child is able to use logical processes and is no longer at the mercy of her perceptions; she becomes decentred.

The properties of operational thought include reversibility, composition, associativity, identity, tautology and iteration (see Ginsberg and Opper, 1979). For example, if a child is able to reason that the number of a set of objects remains the same even if its arrangement in space is altered, they are said to do this by understanding that the original pattern could be reached again by simply reversing the movement that changed it (Donaldson, 1978). This understanding indicates that their thought is reversible. Piaget stated that operations can only exist within an organised system of operations which has the form of a 'group' or a 'grouping'.

Piaget's theories of cognitive development (1926, 1950, 1953) are important because a child's developmental stage will influence how they understand and experience the world and their place in it. Piaget acknowledged that the speed of a child's movement through the periods of development is influenced by the social and cultural environment in which they live. As such, clinical interventions with children in middle-childhood need to be appropriate to the child's level of understanding, and this may be different for children of the same age.

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1.2.3   Development of Moral Behaviour

Stage theories of moral development (Piaget, 1932; Kohlberg, 1978) posit that the basis on which children make moral judgements changes as they grow older and become more cognitively mature. For example, when children reach the concrete operational period they judge the wrongness of an action on the basis of both the amount of damage caused by the act and the actor's intentions. At this stage, rules are regarded as rigid and absolute. By the age of around 10-years, as a child moves into the formal operations stage, the rules become less rigid and absolute and the actor's motive becomes the primary criterion used to evaluate the wrongness of a particular action.

A child's capacity to make mature moral judgements does not necessarily imply that the child will conform to them. Moral behaviour seems to depend upon the internalisation of standards of good conduct (Kochanska, 1993). The optimal parenting conditions for internalising standards and developing moral behaviour involve the following components (Hoffman, 1970):

- Secure attachment between parents and children, involving warmth and communication
- Clear rules operationalising moral standards
- Consistent use of sanctions
- Withdrawal of approval to provoke anxiety rather than physical punishment to provoke anger
- Use of reasoning and explanation
- Giving of age-appropriate responsibility
- Tolerance for self-expression

The absence of these conditions may contribute to the development of conduct problems in childhood (Carr, 1999).

1.2.4 Theories of Attachment

Attachment theory stems predominantly from Bowlby's work (Bowlby, 1969, 1973, 1980, 1988). Bowlby postulated that humans and animals have a genetically-determined psychological characteristic that predisposes them to 'bond' with a particular other, usually the mother, in the early months of life. He argued that this characteristic evolved as a response to predators and other threats, which early humans experienced. The tendency to keep close to a caregiver increased the infant's chances of survival, and thus became 'naturally selected'.

Research using humans and monkeys infants suggests that an ordinary devoted mother provides a child with a secure base from which she can explore and to which she can return when upset or frightened (Ainsworth, 1978; Harlow, 1958). Problems arise, however, when this secure base becomes threatened, is withheld or if the bond is broken. A child's attachment behaviour is activated especially by pain, fatigue, and anything frightening and also by the mother being or appearing to be inaccessible.

According to Bowlby (1988), one of the most important features of attachment behaviour is the intensity of the emotion that accompanies it. The kind of emotion aroused depends on the relationship between the individual and the attachment figure. For example, a secure relationship results in joy, contentment and a sense of security. However, children, separated from their primary caregiver for extended periods of time during their first months of life often fail to develop secure, trusting relationships. Bowlby (1988) described these children as displaying affectionless psychopathology.

Wolff (1989) went further to suggest that if an infant in her first three years of life is unable to form long-lasting and strong bonds with a specific parent figure she is predisposed to more permanent impairments of the capacity for later human attachments and of intelligence.

Attachment is important because the quality of our earliest relationships will have an impact on the nature of our relationships throughout our lives and shape our expectations of others (Bowlby, 1988). In addition, the ability to offer effective care depends on the degree to which individuals have received it themselves, thus it becomes self-perpetuating (Bowlby, 1988).

The concept of attachment theory, and the nature of an infant's attachment relationships, can be used to aid understanding of the behavioural, cognitive and emotional aspects of both emotional and behavioural disorders in children (Bowlby, 1944; Wolff, 1989; Radke-Yarrow, Cummings, Kuczynski, Chapman, 1985).

1.3   Emotional and Behavioural Problems in Children

Emotional and behavioural problems embrace an array of disorders ranging from depression, anxiety and chronic shyness to non-compliance, impulsiveness, hyperactivity, destructive behaviour, stealing and aggression. Whilst all children may at some stage in the developmental process exhibit these behaviours to a lesser or greater degree, clinically such presentations are of interest if they are considered to cause the child, family, or wider social network significant problems affecting all areas of life.

On the basis of epidemiological studies both in the United Kingdom and the United States, it has been estimated that around 12 per cent of children present with significant emotional or behavioural problems (Gould, Wunsch-Hitzig and Dohrenwend, 1980). 20-33 per cent of those children with clinically significant problems are thought to receive treatment (Knitzer, 1982); additionally, it has been suggested that the more seriously disturbed children are less likely to receive help than children with milder dysfunctions (Sowder, 1975).

Cohen, Cohen, Kasen, Velez, Hartmark, Johnson, Rojas, Brook and Streuning (1993) reviewed over 700 cases and found evidence that conduct problems are more prevalent than emotional problems and that psychological problems are more prevalent among boys than girls.

In addition, they found that the overall prevalence of conduct problems is higher for boys than for girls whilst, the overall prevalence of emotional problems is higher for girls than for boys.

In girls, there also appeared to be an increase in conduct disorder, oppositional defiant disorder and major depression around mid-adolescence compared with early adulthood and childhood. In boys, prevalence rates drop gradually from between 10 to 20 years of age for all disorders except depression. Table 1.1 illustrates the main types of problems referred to child and family mental health services and the developmental stage at which they most often occur.

Table 1.1. *Broad Problems areas in clinical child psychology* (Carr, 1999).

Domain	Problem area
Early Childhood (0 to 4 years of age)	Sleeping problems Toileting problems Learning disabilities Pervasive developmental disorders
Middle Childhood (4 to 11 years)	Conduct problems Attention deficit hyperactivity disorder Anxiety problems Repetition problems Somatic complaints
Adolescence (12 to 18 years)	Drug abuse Depression Eating disorders Schizophrenia
Child abuse	Physical abuse problems Emotional abuse and neglect-related problems Sexual abuse-related problems
Major developmental transitions	Substitutive child-care-related problems Separation and divorce adjustment problems Grief associated with bereavement and life-threatening illness

It is the disorders of middle childhood, specifically depression, anxiety and conduct that are of interest in the present research and it is these that will be discussed in more detail in the sections that follow.

1.4   CLASSIFICATION

1.4.1   Dimensional and categorical models of psychological problems

It is considered useful to differentiate emotional and behavioural problems in children in terms of two dimensions (Achenbach, 1991). The first dimension consists of emotional behaviours such as crying, worrying and withdrawal. This dimension has been given the broad label of internalising behaviour problems. Such disorders are most acutely troublesome for the child rather than their parents, carers or teachers. The second dimension targets dysregulated behaviours, such as aggressive and delinquent conduct problems. These have been termed externalising behaviour problems and often reflect a greater cost and challenge for society at large.

In a comprehensive review of Internalising Disorders in childhood, Kovacs and Devlin (1998) define the term as referring 'to conditions whose central feature is disordered mood or emotion', i.e. depression and anxiety. The internalising disorders include withdrawal, inhibition, fearfulness and anxiety; whilst the externalising disorders are characterised by behaviours such as disinhibition, verbal and physical aggression, truancy, opposition and defiance. Psychological problems in childhood are usually placed into either one of these two diagnostic categories, depending on the salient presenting features. These categories are not mutually exclusive however, and children may present to Child and Family Mental Health Services with features of both, suggesting that multiple difficulties are present.

It is also necessary to recognise that dimensional models of psychological syndromes in childhood may not be appropriate for some childhood problems such as autism, even if the child presents initially with features from these dimensions. Here a categorical model may be more appropriate (Cantwell & Rutter, 1994).

Additionally, a clinical diagnosis is more likely to be given to children who fall at the extreme end of the internalising and externalising disorders even though a large number of children referred to child and family mental health services will fit somewhere within these extremes.

1.4.2   Use of symptom checklists

Reliable and valid behaviour checklists and ability tests when used in routine practice can be useful tools for assessing where children fall within the internalising and externalising dimensions (Achenbach, 1991).

In addition, when administering checklists, cut-off scores are routinely used as a means of translating these dimensional scores into a diagnosis (Kasius, Ferdinand, van der Berg and Verhulst, 1997). Furthermore, these scores can be used as a baseline measure against which improvement or deterioration can be assessed.

Studies have highlighted the importance of gaining some insight into the child's own inner mental state (Herjanic and Reich, 1997; Kolko and Kazdin, 1993). Thus utilising self-report measures which target feelings, thought processes and behaviours associated with depression, anxiety, self-esteem and locus of control is one way in which the child's perception and understanding of their situation can be obtained.

1.5   THE INTERNALISING DISORDERS.

Extensive research into this area tends to indicate that population rates of emotional disorders are subject to developmental trends and increase with age (Kovacs & Devlin, 1998). A number of studies suggest that young people who have experienced one depressive episode are more likely subsequently to become depressed again, similarly young people with anxiety disorders remain at high risk for further episodes of anxiety disorder (Kovacs, 1996; Swedo, Leonard & Allen, 1994).

1.6   DEPRESSION

Depressive reactions have been found to coexist with other childhood problems such as school refusal, truancy, substance misuse, delinquency and failure-to-thrive (Carr, 1999). Due to the risk of suicide, particularly in adolescence, depression in childhood has become an increasing concern amongst mental-health professionals (Carr, 1999; Shaffer and Piacentini, 1994).

1.6.1 Prevalence

Until fairly recently, depression in childhood was thought to be rare and if it did occur at all was thought to take a 'masked' form (Glaser, 1968). However, a number of studies have provided evidence for the existence of depression in children and adolescents (e.g. Kolvin, Barrett, Bhate, Berney, Famuyiwa, Fundudis, & Tyrer, 1991; Ryan, Puig-Antich, Ambrosini, Rabinovich, Robinson, Nelson, Iyengar, Twomey, 1987; Puig-Antich, Goetz, Davies, Kaplan, Davies, Ostrow, Asnis, Twomey, Iyengar & Ryan, 1989; Williamson, Ryan, Birmaher, Dahl, Kaufman, Rao, & Puig-Antich, 1995). It has been estimated that about 1 per cent of pre-school children have clinically diagnosable depression (Kashani & Carlson, 1987). In older children, aged between 6 to 12 years, the estimate rises to 2 per cent based on research carried out in New Zealand and the USA (Anderson, Williams, McGee, & Silva, 1987; Costello, Costello, Edelbrock, Burns, Dulcan, Brent, & Janiszewski, 1988).

In community samples, prevalence rates of depression in pre-adolescence range from 0.5 to 2.5 per cent and in adolescents from 2 to 8 per cent.

It is generally recognised that rates of depression increase between childhood and adolescence (Harrington, 1993). Much of the empirical basis for these findings comes from the Isle of Wight studies carried out by Rutter and his colleagues in the 1960s. These studies considered intellectual and educational retardation in the entire population of about 3,500, 9-to11-year-old children living on the Isle of Wight in the South of England. Rutter, Tizard & Whitmore (1970) found a marked increase in affective disorders in children between the ages of 10-to 15-years. In children, aged between 10 to 11-years, depression at interview was very rare (0.14 per cent). Similarly, rates were also low in adolescents between the ages of 14 to 15 years (1.5 per cent).

However, there was evidence that individual depressive symptoms were common at both ages. For example, 12 per cent of the younger group recorded being sad/miserable as did 45 per cent of the older group.

In general, parental reports of affective symptomatology in their adolescent offspring were much lower than the rates reported by the adolescents themselves. The Isle of Wight studies also demonstrated that depressive symptoms were common in all types of psychiatric disorders. Rutter et al's (1970) research offered a fine starting point from which other studies have taken their lead. While it is acknowledged that the measures of depression used were relatively basic by current standards (Rutter, 1989), and the threshold for detection of depressive symptomatology was higher than it is in the present day, many of the findings from the study have been replicated in subsequent research (Rutter, Cox, Tupling, Berger, Yule, 1975; Anderson, Williams, McGee, Silva, 1987; McGee, Feehan, Williams and Anderson, 1992).

In a 3-year prospective follow-up of 65 depressed children, McCauley, Myers, Mitchell, Calderon, Schloredt, & Treder (1993) found that 54 per cent had recurrent major depression, 22 per cent had anxiety disorders, and 11 per cent had conduct disorders. By contrast none of the non-depressed psychiatric controls developed depression and only 4 per cent developed anxiety disorders.

Other research indicates that the high risk of recurrent depression in depressed children and adolescents appears to persist into young adulthood. For example, Rao, Ryan, Birmaher, Dahl, Williamson, Kaufman, Rao, & Nelson (1995) reassessed 26 depressed adolescents, 7 years after their original assessment. During the intervening period 69 per cent had recurrent major depression, 39 per cent had anxiety disorder, and 35 per cent had engaged in substance abuse. The rates of depression and anxiety in these adolescents far exceeded the rates in normal controls.

Rao et al's (1995) research indicates that early onset depression is associated with an array of psychosocial difficulties, such as poor educational attainment, low self-esteem, use of psychotropic medication and mental health services, frequent psychiatric hospitalisations, suicide attempts, anxiety, hostility and recurrent depression in adulthood (Devine, Kemptom, Forehand, 1994; Garber, Kriss, Koch, Lindholm, 1988, Harrington, Fudge, Rutter, Pickles, Hill, 1990; Rao et al 1995).

Moreover, many of these subjects exhibited inadequate prosocial competence and impaired relationships with friends, family and spouses. Nevertheless, it is uncertain whether these difficulties can be attributed solely to the early onset of depression, particularly when research has shown a high level of comorbidity between depressive disorders and other internalising and externalising disorders.

1.6.2 Classification

In children, mild depression is characterised by a drop in energy and a general lack of well-being. At the more severe end, irritability, bad-temper, poor sleep and appetite, dejection and apathy may be present. Depression in childhood and adolescence also runs the risk of being mistaken for laziness or being masked by frenetic and antisocial risky activities, all of which may hinder detection.

The Diagnostic and Statistical Manual (DSM) identifies three categories of morbid depression, which apply irrespective of age. These are major depressive disorder, dysthymic disorder and atypical depressive disorder. Of these three, research suggests that major depressive disorder is notably more prevalent in childhood and adolescents (Bernstein & Borchardt, 1991; Fleming & Offord, 1990).

Kovacs (1986) outlined three developmental dimensions that are relevant to the clinical diagnosis of depressive disorders in children. These are knowledge of emotion and mood, understanding of the self, and time concepts and memory. As a result, children may not always be capable of experiencing or reporting the symptoms seen to be representative of major depressive disorders and only in the later primary school years do they begin to reveal thoughts of self-denigration and feelings of shame (Kovacs, 1986). She argued that before the age of 10-years, children may be unable to differentiate between basic emotions, such as anger and sadness, and similarly their duration and presence. These findings have implications for the assessment of depression in younger children and can be viewed in relation to Piaget's cognitive stages of development and understanding in the maturing child.

1.6.3   Gender Differences

It is widely recognised in adult research that there is a higher rate of depression in women than in men. In childhood the 1:1 (male-female) ratio that exists changes to 1:2 in adolescence and to 1:3 in adulthood (Weissman & Klerman, 1977; Kashani, McGee, Clarkson, Anderson, Walton, Williams, Silva, Robins, Cyrtyn, & McKnew, 1983; Fleming, Offord & Boyle, 1989; Costello, 1989; Velez, Johnson & Cohen, 1989; McGee, Feehan, Williams, Partridge, Silva, & Kelly 1990).

A number of explanations for these age trends have been proposed. For example, there is evidence that boys and girls who present with depression follow different developmental pathways (Block et al., 1991). For example, research indicates that boys who become depressed during their middle school years are more likely to have a history of developmental problems. By contrast, depressed girls in this same age group do not (Petersen et al., 1991). In addition, early puberty in girls is associated with lower self-esteem and negative body image; such factors may contribute to the onset of depression. In boys, however, early puberty is often associated with increased self-esteem. In addition, puberty is associated with hormonal change and it has been suggested that sex differences in rates of depression may be partly due to this. Social factors at puberty are also important (Brookes-Gunn & Warren, 1989) and may be different for boys and girls. For example, the patterns of friendship during early adolescence are different. Boys tend to maintain a wider and more stable friendship network, while girls are often involved in more intense and stormy relationships, which may have a negative impact on their feelings of self-worth. In addition, early adolescence is a time of transition, from primary to secondary school and from dependence to independence.

It has also been suggested that girls may find the process of separation and individuation from the family more difficult because they place greater value on maintaining a sense of connectedness than do boys (Rich, 1990). Petersen, Sarigiani, & Kennedy, (1991) suggest that because girls are faced with more challenges than boys in early adolescence they are, as a result, more prone to depression.

1.6.4   Masked Depression and depressive equivalents

The concept of masked depression in childhood dates back to the writings of Glaser (1968) and refers to depression where mood change is not evident. Instead, the underlying features are masked by other symptoms not usually associated with depression such as somatic complaints, behavioural problems, delinquent behaviour, school phobia and learning difficulties. The concept of masked depression was helpful because it recognised the existence of depressive affect in childhood and in this way advanced understanding in the area. Nevertheless, some authors have argued that children with features of masked depression do exhibit overt depressive features and also report depressive symptoms when asked (Carlson & Cantwell, 1980a; Carlson & Cantwell, 1980b).

Controversy has also raged over whether depression in childhood takes a different form to depression in adulthood. Certainly, a number of psychoanalytic theorists argued that the child's immature personality structure meant that they were incapable of producing a state of depression as experienced in adults (Mahler, 1961). However, in an examination of the psychoanalytic records of 100 children, Sandler and Joffe (1965) demonstrated that these children did indeed exhibit features commonly associated with depressive affect, such as withdrawal, discontent, a feeling of being unloved, passivity and insomnia.

More recent research carried out by 'The Newcastle Group' (Kolvin, et al., 1991) suggests that depression in childhood, although often unrecognised, does not, as previously argued, present as symptomatically different to depression in adulthood. Instead, they suggest that depression remains largely unrecognised and poorly defined in children because of the inadequate assessment tools employed in diagnosis. Harrington (1993) argues, however, that the aetiology of depressive disorders in childhood cannot be considered as a straightforward downward extension of adult models because often, other factors may serve to complicate matters.

1.6.5   Self-report of Depression in Children

Measuring depression in children is fairly complex, ostensibly because as highlighted by Kovacs (1986) children may be less aware of or less able to access and label their emotions in the same way that adults can.   Nevertheless, as discussed previously, rating scales are a useful tool for assessing and monitoring symptoms in children, particularly if they themselves are unable to express these symptoms verbally. Kovacs' (1991) Children's Depression Inventory (CDI), a self-report measure, which assesses the severity of depression in school-aged children as an aid to detection, has been widely used and validated as an assessment tool, and for this reason was included in this study.

1.6.6   Aetiology of Depressive Disorders in Childhood

The aetiology of depressive disorders is usually regarded as being multifactorial, suggesting that there are genetic, sociological and psychological antecedents. In addition, environmental epidemiological studies from the UK, America, Canada and New Zealand (Costello, 1989) conclude that low socio-economic status, high life-stress, low academic achievement and family dysfunction are all associated with the presence of psychiatric disorders.

Current concepts of depressive disorders in childhood use criteria that are closely comparable to those in adults and, as with adult models, it is useful to consider what factors may make the child vulnerable to mood disturbance and what events can precipitate a depressive episode.   A brief description of the most relevant aetioligical theories of depression will now be discussed, beginning with the cognitive theorists.

1.6.7   Cognitive Theories of Depression

Beck and Seligman's cognitive theories of depression have become particularly influential in understanding the aetiology and the factors contributing to the maintenance of depressive disorders (Beck, 1967; Beck, Rush, Shaw and Emery, 1979; Beck, 1983; Seligman, 1975; Abramson, Seligman and Teasdale 1978; Abramson, Metalsky & Alloy, 1989).

Beck's cognitive theory of depression arose out of clinical observations on depressed patients (Beck, 1967). From these observations, Beck postulated that an individual's behaviour is often determined by how she views herself and the world in which she lives. According to Beck's model, experience leads people to form assumptions or schemata about themselves, the world and others, which are subsequently used to organize perception and to govern, evaluate and understand behaviour. However, some assumptions formed in early life are rigid, extreme and resistant to change. Beck referred to these as 'dysfunctional' and viewed them as largely counterproductive.

At the core of Beck's theory are three concepts: (1) the cognitive triad – holding a negative view of the self, the world, and the future, (2) cognitive errors - such as unhelpful and negative thoughts and (3) cognitive schemata. Schemata are defined as the deep, relatively stable, cognitive structures, which reflect fundamental beliefs about oneself, the world and others (Blackburn & Twaddle, 1996).

In Beck's theory, the Stress-Diathesis Model (Haaga, Dyck & Ernst, 1991) is also important because when faced with life stresses, individuals vulnerable to depression because of early loss and related negative self-schemas become prone to interpreting ambiguous situations in negative, mood-lowering ways.

The Cognitive Model describes depression as occurring when negative cognitive schemas formed in early childhood, involving loss, are reactivated by other life events also involving loss (Beck et al., 1979).

The negative schema will usually encompass beliefs such as 'I am worthless unless I am loved' and, on a more conscious level, underpin the occurrence of negative automatic thoughts (cognitive errors), which often reflect the content of the underlying schema.

These negative cognitions form the basis of unhelpful and distorted thinking patterns such as black or white thinking.

Early loss experiences, which might give rise to the formation of negative schemas, are likely to be events such as death of a parent or family member, loss of positive parental care, through rejection or abuse or loss of physical health.

Beck's cognitive theory of depression formed the basis of cognitive therapy. In cognitive therapy the patient and therapist work collaboratively. The aim is to monitor negative automatic thoughts, to recognise connections between thoughts, feelings and behaviours; to examine evidence for and against negative automatic thoughts; to substitute more reality-oriented interpretations for these negative thoughts; and to learn to alter dysfunctional beliefs that might predispose the individual to distort his or her experiences (Beck et al., 1979).

In cognitive therapy, as in other psychological therapies, the relationship between therapist and patient is important. Patients are encouraged to see therapy as a joint venture where both therapist and patient define target problems to work on over the course of the therapeutic contact.

In relation to children, the focus of cognitive therapy is slightly different, largely because developmental stage needs to be considered. Therefore cognitive therapy in children relies more on the behavioural elements of the intervention. The aim is to utilise cognitive behavioural strategies to address specific problems such as phobias (Kendall & Braswell, 1985), or to use cognitive mediational strategies to guide a child's behaviour, thus improving their functioning and adjustment (Durlak, Fuhrman & Lampman, 1991). However, research into cognitive therapy with children does suggest that like adults, they are prone to negative beliefs and schema. For example, Kendall, Stark & Adam (1990) found that schemata that distort information in a negative direction dominated the information processing of depressed children. Thus, it seems that the depressed child's thinking is dominated by core schemata that include a negative view of the self, the world, and the future (Kaslow, Stark, Printz, & Livingston, 1990).

1.6.8 Seligman's theory of learned helplessness

Seligman's theory of learned helplessness was originally based on experiments with dogs who, when exposed to uncontrollable electric shocks, subsequently failed to either learn a response to stop the shocks or to initiate attempts to escape the shocks. In its application to humans, the theory is concerned with attributional bias, stating that depression results when an individual repeatedly fails to control the occurrence of aversive stimuli or experiences of failure and makes internal, global, stable attributions for these failures and external, specific, unstable attributions for success (Abramson et al., 1978). Thus, an individual with a 'depressogenic' attributional style has learned through early experience to believe that previous life events were uncontrollable and that future events will also be outside their control. Kaslow et al., (1988) offer support for this theory, reporting that a clinical sample of depressed children had a more depressive attributional style than non-depressed children.

Therapeutic practice usually involves a process of attributional retraining in which the individual learns to reverse their attribution style by attributing failure to external, specific, unstable factors and success to internal, global and stable factors.
In addition, for children and adolescents, the environment may also be modified so that the likelihood of non-aversive successful experiences greatly outweighs the likelihood of aversive failure experiences.

1.6.9 The Psychoanalytic Perspective on Depression

Early research into depression grew from psychoanalytic ideas about the importance of early loss and the adverse effects of early separation in childhood. Studies from the 1920s onwards began to draw attention to the behavioural consequences of sensory and social deprivation in institutionalised infants and the production of a syndrome with depressive features which resembled adult retarded depression (Levy, 1937; Freud & Burlingham, 1944; Scott, 1948; Winnicott, 1945. In a similar vein, Spitz (1946) suggested that the most important aetiological factor in childhood depression was the "loss of the love object".

He developed the concept of 'anaclitic depression' to describe the reaction in children aged between 6 to 12 months to separation from their mothers, the 'love object', where features of misery, lack of expression and withdrawal were evident. The ground-breaking work of Mary Ainsworth with her 'Strange Situation' (1978) supports the findings of Spitz's early work and served to demonstrate the significant link between patterns of attachment in infancy and later psychsocial functioning.

The attachment theorist, John Bowlby (Bowlby, 1977, 1969.1982, 1988) suggested that the experience of secure attachments in infancy fosters self-efficacy and makes it more likely that social functioning will be adaptive. He also hypothesised that insecure attachments in infancy are likely to predispose infants to react adversely to later stressful experiences and to become depressed.

Van Eerdewegh, Bieri, Parilla, and Clayton, (1982) examined a sample of children who had lost a parent, recording their reactions to the parental death one-month and thirteen months after the event through a structured interview with the surviving parent. The results showed a persistent but minor form of depression, an increase in bed-wetting, and a significant degree of impairment in performance at school for older children.

In addition, losing a same sex parent appeared to be a significant risk factor for depression, particularly for boys. Given Rutter's findings from the Isle of Wight Study (Rutter et al., 1970) however, it is possible that depressive symptomatology in these children may have been higher if self-report rather than parental report had been used.

1.6.10   Familial factors

More recently, research has looked at familial factors as risk factors for depression in children (Weissman, Gammon, John, Merikangas, Warner, Prusoff, Sholomskas, 1987; Beardslee, Bemporad, Keller & Klerman, 1993; Harrington, 1993). The available evidence highlights the following points.

Firstly, that there is a familial or genetic component to depression; secondly that family studies of depressed children show a high rate of psychiatric disorders among their relatives and thirdly, that children of depressed parents have been shown to be at risk for a variety of psychiatric disorders, including depression.

The finding that depression tends to run in families does not imply a purely genetic mechanism. Environmental as well as genetic factors are relevant here since psychosocial deprivation as well as depression tends to co-occur in families (McGuffin et al., 1988). Differences have been found between uni and bi-polar depression in terms of the pattern of familial transmission; with bi-polar depression showing a greater heritability. McGuffin and Katz (1986) estimated heritability for manic-depression as 86 per cent based on data from a number of twin studies. For milder forms of unipolar depression however heritability was estimated at just 8 per cent.

1.6.11   Family history and interview studies

A number of studies of family history have reported high rates of affective disorders in first-degree relatives of depressed children (see Dwyer and Delong, 1987; Livingston et al., 1985 and; Kutcher and Marton, 1991). In addition, family interview studies also add support for this finding.

In one study, Puig-Antich et al (1989) compared 48 probands aged 6 to 12 years who had a major depressive disorder, 20 probands with anxiety disorders and 27 normal controls. The results indicated that major depression and alcoholism were about twice as common in the first-degree relatives of depressed children as in the other two groups.

One flaw with the family history and family interview studies of childhood depression cited previously are that none have achieved close matching between the depressed and control group. Harrington et al (1992) attempted to address these methodological issues in a family interview study that was based on an 18-year follow-up of depressed children in adulthood.

The results suggested that the lifetime prevalence rate of depression in the 128 relatives of the depressed subjects was nearly double the rate of the 151 relatives of the child psychiatric control group.

1.6.12   Parental factors

It has been widely acknowledged in research literature that parental mental disorder is a risk factor for psychopathology in children (Gershon, et al 1982; Beardslee et al., 1993, Weissman et al., 1988; Hammen, Burge, & Stansbury, 1990). Research also suggests that children of affectively ill parents are at increased risk for developing both internalising (Rubin et al., 1991) and externalising (Harnish et al., 1995) problems in comparison with children whose parents are not ill. In addition, longitudinal studies have shown that the adverse effects of growing up with an affectively ill parent, persists over time (Beardslee et al., 1998; Hammen, 1991).

Research also indicates that early onset depression, before the age of 20, is associated with an increased familial loading of depression. Weissman et al (1988), found that children whose parents experienced a major depressive episode before the age of 20 years were at greater risk for developing major depression than children whose parents became ill later in life. Grigoroiu-Serbanescu, Christodorescu, Magureanu, Jipescu, Totoescu, Marinescu, Ardlelean & Popa (1991) found that for the most part, the younger the age of onset of parental depression, the greater the risk for psychopathology in their children.

Parental affective disorder serves to identify a pattern of risk factors for their children, similarly, the severity and chronicity of parental psychopathology also determines the overall impact of the disorder on the child (Hammen et al., 1990a). In the same way that the children of alcoholic parents are more likely to become alcoholics, depressed parents are more likely to have depressed offspring, therefore supporting the assumption that there is an interaction between common risk factors and the specific parental illness.

Nevertheless, there is a proportion of 'resilient' children who manage in the face of adversity and exhibit the ability to adapt successfully despite their family circumstances. For example, a number of studies have identified that an ability to work and engage in supportive and intimate interpersonal relationships contributes to resilient outcomes in children (Garmezy, 1985; Rutter, 1987).

1.6.13 Depression and its implications for the current study

While not a primary psychological disorder of middle-childhood (see Table 1.1) depressive symptomatology is none the less associated with all types of common psychiatric disorders (Rutter et al., 1970). It is the testing of this finding which is of interest in the current study. Moreover, because childhood depression has only recently been recognised (Cantwell and Carlson, 1983) and is a risk factor for depression in later life (Newman, Moffitt, Caspi, Magdol, Silva. & Stanton, 1996) it is of interest to determine whether children participating in this study presented with clinically significant levels of depression as measured on the CDI (Kovacs, 1980).

1.7   ANXIETY

Fear and anxiety in children is a normal part of growing up. Indeed, research into the incidence and prevalence of internalising disorders in childhood indicates that some anxiety disorders are so common that they could be considered normal. It is common for children to be worried, fearful or shy about certain things at different stages of their development (Herbert, 1998). In addition, at various stages the developing child will be required to face and negotiate challenges and tasks, which they may find stressful, difficult and demanding.

Kendall (2000) argues that it is not altogether surprising that some children feel overwhelmed and unable to cope with these challenges, experiencing emotional difficulties as a result. Given that it is normal for adults as well as children to experience worries, fears and anxieties, in a clinical setting these should only be considered truly problematic when they are intense, prolonged and interfere with every day functioning.

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In children this would prevent them from completing developmentally appropriate tasks, such as going to school or socialising with friends (Carr, 1999). In all anxiety disorders, beliefs about threat and danger are accompanied by feelings of tension, restlessness and unease.

1.7.1 Prevalence

The findings of research carried out over the last 50 years have consistently demonstrated that fears and anxieties in childhood are numerous and common.

For example, in a review of existing epidemiological studies, Anderson (1994) concluded that the overall prevalence for anxiety disorders in children and adolescents is approximately 2 to 9 per cent. In addition, many children will meet the criteria for two or more anxiety disorders.

Epidemiological and clinical studies have indicated that the prevalence of different anxiety disorders is related to age. For example, separation anxiety occurs most often in childhood, whilst over-anxious disorder and panic disorder are more commonly found in adolescence. Explanations for the existence of anxiety disorders generally centre round the assumption that they are somehow related to the normal development of fears and worries (Miller, Boyer & Rodoletz, 1990). As children get older fears do diminish but do not disappear. For example, Ollendick, Matson and Helsel (1985) found that 7 to 9 year olds reported just over 14 separate fears whilst 16 to 18-year olds reported over 11.

1.7.2. Classification

In classifying anxiety disorders a number of factors should be taken into account. For example, the developmental stage at which they occur, the stimuli that elicit the fear responses, the pervasiveness, the topography of the anxiety response and the role of identifiable factors in the aetiology of the anxiety response (Carr, 1999).

In DSM IV, only separation anxiety is listed as an anxiety disorder specific to childhood and adolescence. In ICD-10, childhood anxiety disorders are listed under a general category of 'emotional disorders with onset specific to childhood'.

These include separation anxiety, phobic anxiety disorder, social anxiety disorder and sibling rivalry disorder. Typically, the first three disorders are the most prevalent.

1.7.3. Gender Differences

Opinion differs with regards to gender differences in children. Some research appears to show clear differences in the prevalence of anxiety disorders in boys and girls (Bauer 1976; Ollendick & King, 1991; Anderson, 1994) whilst others report no gender differences between clinic cases at all (Treadwell, Flannery & Kendall, 1995; Last, Perrin, Hersen & Kazdin, 1992). In general, studies appear to confirm that more girls than boys experience anxiety disorder of some type, but that for specific diagnoses this difference disappears for all but global measures of anxiety (Costello & Angold, 1995).

1.7.4 Measurement of Anxiety

A number of measures have been developed to measure anxiety in children. One of the most researched and frequently used trait measures is the revised version of the Children's Manifest Anxiety Scale (RCMAS). Appropriate for children of 6 years and above, the RCMAS was used in this study to measure anxiety.

1.7.5 Aetiology of Anxiety Disorders in Children

Development is important when considering anxiety disorders in children, because different fears tend to be associated with different developmental stages. For example, between the age of 8 months to 2 years children tend to fear separation from their caregivers, although this fear should gradually diminish during that time. Between the age of 2 to 4 years, new fears begin to emerge such as a fear of animals or a fear of the dark (Gray, 1987). By the age of 4, a child's imagination begins to take over, many of their fears relating to ghosts, ghouls, monsters and things that go bump in the night. By the age of 6 the child's world and with it their fears becomes more reality based and worries about injury, death or natural disasters may predominate.

As the child and adolescent continues to develop socially and cognitively, fears begin to relate to aspects of their social world such as performance and evaluation by others (Kashani, Orvaschel, Rosenberg, & Reid, 1989; Ost, 1987).

Therefore, from infancy through to adolescence, the type of stimuli, which evoke fear will vary and will parallel developments in the individual's cognitive and social competencies and concerns. With each developmental stage the child must learn to cope with and take on new challenges and experiences, these in turn will necessitate the development of new skills, beliefs and feelings. Through learning that they can cope with anxious and fearful situations the child begins to acquire new ways of coping (Kendall, 2000). In this way they are more able to take on future challenges with confidence and a knowledge that they have the ability to succeed at similar tasks in the future (Bandura, 1981).

1.7.6   Anxiety and temperamental inhibition

Children will differ in terms of how they react to novel circumstances. Whilst some appear to take every new situation in their stride, others react consistently to novelty and unfamiliarity with initial restraint and avoidance. Research at the Harvard Infant Study laboratory, by Kagan and colleagues reports that 15 to 20 per cent of Caucasian American children are born predisposed to be irritable as infants, shy and fearful as toddlers, and cautious, quiet, and introverted when they reach school age (Kagan, Reznick & Gibbons 1989; Kagan, Reznick & Snidman, 1988). As a result, it has been proposed that some children may have a temperamental predisposition to react to novel stimuli with initial fear or inhibition (Biederman, Rosenbaum, Chaloff, Kagan, 1995).

It appears that temperamental inhibition is a fairly stable and heritable trait, which is associated with specific physiological correlates such as increased sympathetic reactivity (Kagan et al., 1987; Davis. 1992).

The idea that temperamental inhibition is a predisposing factor in the development of anxiety disorders in children has been addressed in a number of studies, the findings of which largely support this view (Rosenbaum, Biederman, Gersten et al, 1988; Biederman, Rosenbaum, & Hirshfeld, 1990; Schwartz, Snidman & Kagan 1996; Reznick, Hegeman, Kaufman, Woods, & Jacobs, 1992; Caspi, Moffitt, Newman, & Silva, 1996). The risk appears to be greater for children who have parents with anxiety disorders and for those who remain consistently inhibited over time (Rosenbaum et al, 1988; Biederman, et al., 1990).

Another explanation for the development of anxiety disorders is that children who are temperamentally inhibited may have an overactive Behavioural Inhibition System (Gray, 1987, 1988, 1991). This theory has been supported by the results of a number of studies of anxiety-disordered children (Oosterlaan & Sergeant, 1998; Pliszka et al., 1997; Werry, Elkind & Reeves, 1987). However, there is a need for additional research in this area to provide further support for these initial findings (Oosterlaan, 2001).

Not all temperamentally inhibited children go on to develop anxiety disorders (Hirshfeld, Biederman, & Rosenbaum, et al., 1992) and some children with anxiety disorders may not have a history of inhibition (Oosterlaan, 2001). Nevertheless, in the search for predisposing factors, the inhibition hypothesis may offer a helpful explanation for why some individuals are more prone to developing anxiety disorders than are others.

1.7.7. Anxiety and Psychosocial Development

As well as the inhibition hypothesis (Gray, 1987, 1988, 1991), anxiety disorders in children and adolescents have been linked to psychosocial development in the early years.

The two main theories of psychosocial development come from psychoanalytic and attachment theories (Freud 1926; Bowlby, 1969, 1973, 1980, 1988).

1.7.8 Psychoanalytic theories of anxiety

The psychoanalytic approach proposes a general theory of psychosocial development Much of this originates from the work of Freud, who formed many of his theories of child and adolescent development based on his psychiatric work with adult patients (Freud, 1894, 1905, 1909a, 1909b, 1909c, 1926). Freud believed that the first five years of a child's life were crucial for healthy psychosocial development. This was linked to the development of the sexual drive, from oral to anal and phallic organisations, and the development of object relations, in which the Oedipus complex predominates (Freud, 1905).

From a psychoanalytic perspective, anxiety in general, and phobias in particular, can be explained in terms of defence mechanisms, which stop unacceptable impulses or feelings and accompanying moral anxiety about these from entering consciousness. Instead, the unacceptable impulses and associated moral anxiety is replaced by neurotic anxiety, which is expressed as an anxiety disorder (Carr, 1999).

According to psychoanalytic theory, the mechanism of displacement is the key to understanding anxiety. The child's original fear or anxiety about a particular taboo object or situation is displaced onto a more socially acceptable target (Malan, 1979; Bateman and Holmes, 1995). Thus, when a child maintains that they are frightened about something, the psychoanalytic theory holds that they are really scared about something else. With generalised anxiety disorder, the individual's defences break down. As a result they are overwhelmed with anxiety, as the unacceptable impulses intrude time and again into consciousness in their quest for expression (Malan, 1979; Bateman and Holmes, 1995).

1.7.9 Attachment and Anxiety

Attachment theories link the development of anxiety disorders to insecure attachment at a critical developmental stage, usually between the ages of 2 to 3 years of age, with one's primary caregiver. The theory stems predominantly from Bowlby's work (Bowlby, 1969, 1973, 1980, 1988). See section 1.2.4.

A number of studies have examined the link between insecure attachment and anxiety disorders (Manassis, Bradley, Goldberg, Hood, & Swinson, 1994; Warren, Huston, Egeland, & Sroufe, 1997). For example, in an examination of adult attachment and mother-child attachment in 20 anxious mothers and their children, Manassis et al (1994) found that all the mothers had insecure attachments, and 80 per cent also had insecure attachments with their children. Of these 16 children, two met diagnostic criteria for separation anxiety disorders, and one other for avoidant anxiety disorder with disorganised attachment. None of the securely attached children were found to have an anxiety disorder. In another study, Warren et al (1997) examined 172 adolescents who at 12 months of age had participated in assessments of mother-child attachment. Of these, twenty-six met diagnostic criteria for anxiety disorders. In addition, more of these adolescents were described as having anxious/resistant attachments as babies. Moreover, anxious/resistant attachment appeared to double the risk of developing an anxiety disorder and proved a better predictor of adolescent anxiety disorders than either maternal anxiety or child temperament.

1.7.10 Anxiety and Affective and Cognitive processes

From a cognitive perspective, anxious children, like anxious adults, will often underestimate their ability to cope with the demands and expectations placed upon them.

In general, the two main cognitive approaches in the treatment of anxiety are the cognitive-behavioural and the information processing theories. The first tends to use self-report as a measure of anxiety levels, the second, experimental tasks such as the emotional Stroop test to study cognitive processes such as memory and attention. Studies using the information-processing perspective have shown that selective attention mechanisms influence children's processing of threatening information and may play an important part in the regulation and dysregulation of childhood anxiety (Dalgleish et al., 1997; Vasey, El-Hag & Daleiden, 1996).

The cognitive view of anxiety disorders holds that anxiety is mediated by distorted and maladaptive thoughts (Beck, Emery, and Greenberg, 1985). Beck's theory of anxiety, states that anxiety is a product of heightened perceived threat and a decreased estimation of coping ability (Beck et al., 1985). Clinicians have drawn from adult anxiety literature in order to provide cognitive behavioural treatments for children (Barrios & Shigetomi, 1979). The available research in this area provides some evidence that anxiety in children may be associated with distorted cognitions (King, Ollendick, and Tonge, 1995; Leitenberg, Yost & Carroll-Wilson, 1986). In general, research has shown that children who are high on test-anxiety tend to demonstrate higher rates of cognitive errors such as catastrophising and overgeneralising (Leitenberg, Yost & Carroll-Wilson, 1986). They also demonstrate a greater number of negative thoughts related to the self and more off-task thoughts than low test-anxious children (King et al., 1995). Other studies have shown patterns of negative cognitions in children with high-trait anxiety (Fox, Houston & Pittner, 1983), anxiety disorders (Kendall, 1994) and social phobia (Beidel, 1991). It seems, therefore, that childhood anxiety in some children is associated with a cognitive bias of threat, negativity, hostility and social evaluative threat.

According to Kendall, Howard & Epps (1988) cognitive therapy in children can be effective if provided through a sensitive synthesis of behavioural and cognitive treatment approaches. In relation to this, Kendall, Kane, Howard & Siqueland, (1989) and Kendall, (1990) highlighted the following six features of cognitive-behavioural treatment which might be used effectively with children. The six features: relaxation, building a Cognitive Coping Template, problem solving, contingent reinforcement, modelling and exposure, integrate behavioural components with an added emphasis on cognitive information-processing factors associated with anxiety.

The goal of treatment is to teach children and adolescents to recognize signs of unwanted anxious arousal - cognitive, behavioural and affective - and to use these as a cue for employing behavioural and cognitive anxiety management strategies (Kendall, Cantwell & Kazdin, 1989).

Evidence for the efficacy of cognitive behavioural treatments for anxiety in children comes from a number of studies (Kendall, 1994; Kendall, Flannery-Schroeder, Panichelli-Mindel, Southam-Gerow, Henin & Warman, 1997). Kendall (1994), in the first randomized clinical trial using individual child-focused cognitive behavioural treatments, found it to be effective in reducing DSM-III-R anxiety disorders in children (aged 9 to 13 years) compared with waiting list controls. A further randomized clinical trial (Kendall et al., 1997) looking at children aged 9 to 13-years of age with overanxious disorder, avoidant disorder and separation anxiety also demonstrated that individual cognitive behavioural therapy was effective compared with a waiting list control group.

Kendall's and other studies (Cobham, Dadds & Spence, 1998; King, Tonge, Heyne et al., 1998) suggest that cognitive-behavioural techniques are effective in treating children with anxiety disorders.

1.7.11 Parental factors

As with depression, anxiety disorders tend to run in families (Turner, Beidel, and Costello, 1987; Kendler, Heath, Martin & Eaves, 1987). This is likely to be due to a number of factors, genetic, environmental, attachment behaviour and the influence of social learning theories such as vicarious learning or modelling the behaviour of the anxious parent. It should also be noted that individual differences and the interactive nature of the child-parent relationship will not only affect how the parent relates to a particular child but also how that child will interact with their parent. In reality, we can only begin to understand the contribution of family and genetic factors to childhood anxiety disorders if we are firstly aware of the interactions between the two.

A number of family history studies have shown that children with anxious parents are more prone to anxiety disorders. For example, Berg (1976) argued that the prevalence of school phobia in the children of agoraphobic mothers was higher than would be expected in the general population.

Weissman et al (1984) showed that children whose parents suffered from depression and an anxiety disorder demonstrated a greater level of anxiety than the children of normal controls or of parents with depression only. Despite these findings the majority of research in this area has not found specificity between parent and child in terms of the types of anxiety disorders experienced. Exceptions may exist however for panic disorder and obsessive-compulsive disorder (Last et al 1991). Other research has focused on twin and adoption studies, and the contribution of family processes, such as rearing styles, to the development of anxiety in children.

1.7.12 Conditioning

As mentioned previously, children appear to be particularly prone to fear, and these fear responses, in general, decrease with age. It is widely assumed that anxiety disorders are somehow related to the normal development of fears and worries (Miller, Boyer & Rodoletz, 1990) and that childhood experience has an impact on the acquisition of phobias and other anxiety disorders. Conditioning models have been used to explain how certain stimuli and situations become the objects of phobic responding and anxiety induction.

Watson & Rayner (1920) successfully conditioned a 9-month-old child to react with fear towards a white rat, by pairing it with a loud, fear-inducing noise. Forty years later, Mowrer (1960) proposed a two-stage theory of conditioning to explain how phobias and avoidant behaviour occurs. Mowrer, suggested that initially, an individual learns to associate a stimulus with an aversive outcome which results in a conditioned fear response. Following this, the individual learns that avoidance of this feared stimulus results in a reduction in the fear response. Both these models have been criticised in recent years on a number of counts and a number of other models have been put forward (Eysenck, 1979; Davey, 1997).

Overall, conditioning models have contributed much to our understanding of how phobias in particular, and other anxiety disorders in general, develop and are maintained (Pavlov, 1927; Watson & Rayner, 1920; Mowrer, 1960).

The conclusion from most of the research that exists to date suggests that the fear response may be mediated by factors such as the strength of the association between the unconditioned stimulus and the conditioned response and whether the stimulus is evaluated as threatening or benign (Davey, 1992a; Honeybourne; Matchett & Davey, 1993; Davey, 1997).

1.7.13 Anxiety – long-term outcomes

Prospective studies have shown evidence for impaired psychosocial functioning in young adults with childhood or adolescent-onset anxiety disorders. However, the majority of these have been limited to subjects with histories of school phobia or obsessive compulsive disorder. Problems in adulthood, which have been associated with childhood anxiety disorders are employment difficulties, impaired social relationships and difficulty completing secondary education (Waldron, 1976; Baker and Willis, 1979; Buitelaar, van Andel, Duyx, & van Strien, 1994). In addition, retrospective studies of those with childhood anxiety problems also provide evidence for continued impairment in adult functioning (Ollendick, Lease, & Cooper, 1993).

1.8   Externalising Disorders

The externalising disorders can be broadly categorised into Conduct Disorder (CD), Attention Deficit Hyperactivity Disorder (ADHD) and Oppositional Defiant Disorder (ODD). They are all characterised by dysregulated behaviour and represent particularly debilitating (Lahey, Loeber, Quay, Frick, & Grimm, 1997) and prevalent psychopathological conditions (McMahon & Estes, 1997; Frick, 1998; Kazdin, 1995).

Children with externalising behaviours tend to cause great concern amongst mental health care professionals and society at large because of their high degree of impairment and their poor prognosis (Robins & Price, 1991; Offord & Bennett, 1994). The result is a need for services that far exceeds the available resources and personnel (Hobbs, 1982; Knitzer, 1982).

This lack of resources may also ultimately result in more serious long-term consequences whereby children with aggressive and antisocial behaviours are at danger of rejection by their peers, families and wider social network (Herbert, 1998). These children are also more likely to be at risk of developing problems in later life such as truancy, drug and alcohol problems, juvenile delinquency, adult crime and interpersonal problems (Robins and Price, 1991; Robins, & McEvoy, 1990).

From a parent's viewpoint, having a child who presents with repeated and excessive disruptive behaviour problems is both stressful and distressing (Brody & Forehand, 1986; Webster-Stratton & Hammond, 1988). For example, in a qualitative analysis of what parents say about their children, Webster-Stratton & Herbert (1994) found that aggression was labelled as a dominant characteristic of their child's misbehaviour. The general impression was that such children can at times be loving and thoughtful and at other times highly destructive and defiant. Parents indicated that it was the unpredictability and volatility of their child's negative behaviours, which caused them distress. The tendency for these behaviours to occur without warning and in any place necessitated vigilance on behalf of the parents at all times.

1.8.1 Conduct disorder and Oppositional Defiant Disorder

ODD is characterised primarily by disobedient behaviour and CD by rudeness, aggression, lying, stealing recurrent patterns of negativistic, defiant, disobedient and hostile behaviour towards authority figures, with flouting of conventions and social norms. At their most extreme, CDs will amount to major violations of age-appropriate social expectation (World Health Organization, 1992). Typically, the disruptive behaviour will be present in the home, at school, with peers and in the community.

ODD tends to begin in early childhood, and is, therefore, often viewed as a precursor to CD (Kazdin, 1995). While ODD and CD share similar features, the majority of empirical evidence supports a distinction between the two.

However, this distinction is a recent one and therefore most theories in this area have been developed with specific reference to CD, nevertheless they will also have implications for ODD because of the similarities between the disorders.

1.8.2 Prevalence

Overall prevalence rates for CD and ODD vary from 4 to 14 percent depending upon the criteria used and the population studied (Cohen et al., 1993; Carr, 1993). Disruptive behavioural disorders appear to be on the increase and ODD and CD continue to be the predominant childhood disorders seen in mental health and community settings. CD are more than twice as common as emotional disorders. McMahon and Estes (1997) suggest that conduct problems are the most frequently occurring child disorders, with prevalence ranging from 2 per cent to 9 per cent for CD and from 6 per cent to 10 per cent for ODD.

1.8.3 Gender Differences

In general, research indicates that prevalence rates for CD are higher in boys than in girls (Lahey, Miller, Gordon, & Riley, 1999). Although a precise gender ratio is difficult to determine because of the varied diagnostic criteria and the varying types of assessments often used, estimates vary from 3:1 to 7:1 (Earls, 1994). Research also indicates that the onset of CD is earlier in boys, usually before the age of 10, while in girls, onset tends to be concentrated between the ages of 13-16 years of age (Kazdin, 1990). Gender differences may also be noticeable in terms of presenting symptoms. For example, theft is more common among males, whilst sexual misbehaviour is more common amongst females.

1.8.4 Aetiology

The factors most often associated with Conduct Disorder in children are individual characteristics (Dabbs, Jurkovic, and Frady, 1991; Raine, 1988; Moffit, 1993; Crick & Dodge, 1994) such as parental factors (Kazdin, 1995; Bandura & Walters, 1959) and interaction patterns between the child and the parent (Haley, 1967; Colapinto, 1991; Madanes, 1991).

Additionally, a child with CD may have attainment difficulties at school and show clear cognitive deficits, such as poor problem solving skills (Kazdin, 1995) and a lack of understanding in social situations (Spivack & Shure, 1982).

1.8.5   Biological Theories

A number of biological theories have been put forward to explain the existence of disruptive behavioural disorders, ranging from the contribution of genetics (Plomin, 1991; Bolton and Holland, 1994), to neuropsychological deficts (Moffit, 1993; Shapiro and Hynd, 1995). Evidence for a genetic contribution comes from twin studies, which suggest a concordance rate of 87 per cent for monozygotic twins, and 72 per cent for dyzogotic twins, and the predominance of males among children and adolescents with CDs (Plomin, 1991). Other biological theories have considered the role of arousal levels in children with conduct disorder (Raine, 1988). This theory holds that such children have lower arousal levels, making them less responsive to the positive reinforcement, which often follows prosocial behaviour and less likely to avoid punishment as a result of antisocial behaviours. As a result, they fail to learn prosocial behaviour and fail to avoid antisocial behaviour. The theory holds that low levels of arousal are inherited and there is some evidence from twin studies to support this (Kazdin, 1995). Finally, neuropsychological deficits have been put forward to explain the presence of conduct disorder in children (Moffit, 1993; Shapiro and Hynd, 1995). This theory holds that self-regulation difficulties that contribute to conduct problems are due to deficits in verbal reasoning and executive functioning. Additionally, these deficits may lead to a lack of academic and occupational attainment, leading to frustration and aggressive behaviour.

Evidence for this hypothesis comes from studies that demonstrate a strong association between reading and conduct problems and show that unsocialised conduct problems are associated with self-regulation problems (Moffit, 1993; Shapiro & Hynd, 1995).

1.8.6 Cognitive Theories

Cognitive theories concentrate on deficits in social skills and problems with processing of social information. The first theory proposes that children with conduct disorder lack the necessary skills to create alternative solutions to social problems, for example dealing with an apparently hostile peer (Spivack & Shure, 1982). They also lack the skills to actually implement new solutions to social problems (Kazdin, 1995). The social information-processing theory proposes that children with conduct problems attribute hostile intentions to others in ambiguous social situations (Crick and Dodge, 1994).

As a result, any use of confrontation or aggression in these situations, is considered to be a retaliatory act rather than as an offensive one. The recipients of this type of behaviour respond in a negative way, viewing it as unjustified. This in turn leads to impairment in social relationships, with the aggressor believing his initial hostile attribution to be correct, and the recipient feeling himself to be the victim of an unprovoked attack (Carr, 1999).

1.8.7 Family Theories

Given that the family is the primary context for the socialisation of children, a number of family-based factors have been identified as contributing to, and maintaining, disruptive behaviour patterns (Bandura and Walters, 1959; Patterson, Kazdin, 1996). Parental deviance, parental rejection and coerciveness, lack of supervision and discipline and marital conflict and divorce are all associated with conduct disorders (see Hetherington, Law, & O'Connor, 1993). There is evidence that parents of children with conduct disorders also display deviant and aggressive behaviour (Rutter & Quinton, 1984). This suggests that the child's behaviour may be partly learned from or modelled on the parent's antisocial behaviour.

Marital conflict has also been shown to contribute to oppositional behaviour in children (Mann & MacKenzie, 1996). In addition, high rates of divorce are associated with conduct disorder in children (Rutter & Quinton, 1984).

However, divorce itself may not be the sole contributing factor to the problem, as evidence suggests that divorce is frequent among parents and families with certain characteristics and it is these characteristics, which might instead contribute to the onset of conduct disorder (Kendall, 2000). Parenting style is also thought to make an important contribution to behaviour problems in children. Patterson et al (1992) have suggested that coercive patterns of interaction between parent and child may be partly responsible for antisocial behaviour in children. Initially, the parents may have few positive interactions with their child. Secondly, they may use frequent but inconsistent and ineffective punishment.

Thirdly, they may negatively reinforce antisocial behaviour by reacting initially to misbehaviour but withdrawing punishment or confrontation when the behaviour escalates. Thus the child learns that the escalation of the behaviour results in the parent withdrawing. This pattern of interaction may lead to the child having consequent difficulties with peers and teachers as they develop an aggressive style of relating to others.

1.8.8   Systems Theories

From a systemic perspective, the role of family, social network and societal systems are also thought to be important in the aetiology and maintenance of conduct problems. Family systems theory posits that conduct disorders are maintained by unhelpful patterns of family interaction (Haley, 1967; Colapinto, 1991; Madanes, 1991). At a structural level, families of children with disruptive behaviour problems tend to be more disorganised than other families. Communication patterns are indirect, lacking in empathy and confusing and family rules, roles and routines may be unclear. Moreover, these families may lack problem-solving skills and may be less emotionally engaged than other families (Carr, 1999).

Finally, a multisystemic approach views conduct problems as resulting from characteristics of the individual, the family, the school and the community.

Individual factors may include a difficult temperament, early separation experiences, hostile attributional bias, poor social skills, difficulty learning prosocial behaviour and academic learning difficulties (Borduin, Mann, Cone, Henggeler, et al., 1995).

From a family perspective, factors may include disorganisation, ambiguous family hierarchies, parent-child attachment difficulties, parenting and discipline problems, marital discord and difficulty negotiating life-cycle transitions (Bronfenbrenner, 1986). With regard to school there may be problems with discipline as a result of unhelpful patterns of interaction, attainment difficulties and lack of educational resources. Community factors may include involvement with deviant peers and drug abuse.

1.8.9 Attention Deficit Hyperactivity Disorder

Attention Deficit Hyperactivity Disorder is characterised by the core difficulties of inattention, over-activity and impulsivity (APA, 1994). The DSM diagnosis may include ADD with or without hyperactivity. ADHD is said to affect between 3 to 5 percent of children and two to three times more boys than girls. Prevalence estimates range from 2 per cent in girls to 9 per cent in boys.

In addition to these core problems, children with ADHD may experience a wide range of secondary difficulties such as poor attainment at school and relationship problems as well as comorbidity with other disorders. The global difficulties that affect children with ADHD are likely to have an adverse effect on their life at home, in school and social situations. Often these children are not academically successful. Research suggests strong evidence for the detrimental effect of having unidentified ADHD as a child, indicating the need for earlier identification and intervention for people affected with this disorder. For example, Rucklidge (1999) found that women with ADHD were more likely to be depressed, anxious, stressed, have an external locus of control, lower self-esteem, and engage in more emotion-oriented and less task-oriented coping strategies. Their attributions were also more uncontrollable, stable and global.

1.8.10 Aetiological theories of Attention Deficit Hyperactivity Disorder

Biological, intrapsychic and systems theories have all been proposed to explain the aetiology of ADHD in children. The biological and intrapsychic theories will be mentioned here. The reader may refer to the earlier section for a review of externalising disorders in relation to systems theory.

The genetic hypothesis proposes that children with ADHD have inherited temperamental traits, which interact with environmental factors, to produce the condition (Stevenson, 1992; Hinshaw, 1994). Other biological theories suggest that ADHD can be attributed to abnormalities in the functioning of the neurotransmitter dopamine (McCracken, 1991).

Psycho-stimulants, such as methylphenidate and dextroamphetamine which ameliorate the symptomatology of ADHD, have been found to be effective for between 60 to 90 per cent of children with ADHD and are thought to act on the dopamine system and noradrenaline and adrenaline systems in the brain (Taylor, 1994b; Hinshaw, 1994). In addition, there is often a corresponding improvement in academic and social functioning whilst drug treatment lasts (Taylor, 1994b; Hinshaw, 1994, Gadow, 1992). Finally, the underarousal hypothesis explains hyperactivity and inattention as a failure to be sufficiently aroused by signal stimuli, to attend to them and regulate activity levels (Raine, 1988).

Some evidence for this hypothesis comes from psychophysiological studies, which demonstrate that children with ADHD show reduced psychophysiological responsiveness to novel stimuli (Oosterlaan & Sergeant, 1995, 1996). Similar findings have also been found in children with conduct and learning disorders (Taylor, 1994a).

Intrapsychic theories have proposed inattention (Douglas, 1983), overactivity (Schachar, 1991; Taylor, 1994a, Hinshaw, 1994) and impulsivity (Barkley, 1994; Schachar and Logan, 1990) hypotheses to explain ADHD.

The inattention hypothesis recognises the difficulty of sustaining attention in ADHD, whilst the hypotheses of overactivity and impulsivity, view difficulties with regulating motor activity and responses to stimuli as important factors.

Finally, a difficulty in rule following has also been proposed to explain ADHD (Barkley, 1981). According to this theory, children with ADHD have difficulty using inner and outer speech as a discriminative stimulus to cue particular responses. Some evidence for this view comes from research suggesting that children with ADHD show both a developmental delay in language development as well as in the development of internal speech (Berk and Potts, 1991).

1.8.11 Psychological problems associated with the externalising disorders

A number of studies suggest that children with externalising disorders may be more at risk for long-term psychological problems. For example, Fischer, Rolf, Hasazi, and Cummings (1984) looked at externalising and internalising disorders in 541 children aged between 2 and 5 years of age. The children were reassessed 9 years later. Over time, externalising disorders were found to be the more stable of the two disorders, i.e. preschool externalising symptoms were positively correlated with later externalising and internalising symptoms in the entire sample. However, overall, no such stability of symptoms was found for children presenting with internalising behaviour.

This finding is supported by research suggesting that children with conduct disorders, which constitute a third to a half of all clinic referrals, are likely to experience psychosocial difficulties as adults (Kazdin, 1995; Robins and Price, 1991; Robins, & McEvoy, 1990). During childhood, academic, interpersonal and family problems prevail, in adolescence and adulthood, occupational difficulties, marital discord, criminal activities, and mental health problems predominate.

1.9. COMORBIDITY

Comorbidity or the co-occurrence of multiple disorders refers to situations where more than one diagnosis may be given (Feinstein, 1970).

The field of child and adolescent psychiatry, in contrast with other branches of medicine, is concerned with disorders or behavioural and psychological syndromes that deviate from some standard of normality (Angold, 1988).

Thus in psychological medicine the concept of comorbidity is contentious because it may imply that the classification system used to define these disorders is at fault, and that there is little meaningful association between underlying diseases indexed by the classification system (Angold, Costello, and Erkanli, 1999).

Table 1.2 below shows comorbidity rates for four major DSM categories. These figures are based on aggregated figures from four major international, community-based, non-clinical studies involving a total of 2662 cases (Anderson et al., 1987; McGee et al., 1990; Bird et al., 1987; Kashani et al., 1987). Data was collected via structured interviews with the child and diagnoses were made according to DSM III criteria. The results show that 10 to 20 per cent of cases in the community exhibit symptoms consistent with the diagnosis of two of the four most common childhood disorders: conduct disorder, depression, anxiety disorder or attention deficit hyperactivity disorder.

Table 1.2

	Conduct Disorder	ADHD	Major depression	Anxiety disorder
Conduct disorder %				
ADHD %	23.3			
Major depression %	16.9	10.5		
Anxiety disorders %	14.8	11.8	16.2	

The study of comorbidity may hold important implications for treatment (Achenbach, 1991), as it may imply different or more comprehensive interventions than those required by single conditions. For example, research has shown that children with ADHD and anxiety disorders responded less well to stimulant medication than those diagnosed with ADHD alone (Pliszka, 1989). Clinically, this high level of comorbidity is important because often the simultaneous presence of more than one disorder can complicate both diagnosis and treatment.

1.9.1 Comorbid depression and anxiety

The overlap of depression with other psychiatric diagnoses has been one of the most consistent findings from research in clinical populations. Indeed, Harrington et al (1990) argue that the majority of children who meet criteria for depressive disorder are also given some other psychiatric diagnosis by the professionals involved in their care.

Most commonly in children, anxiety disorders are found to occur with depression, this appears to be true of separation anxiety in particular. For example, Ryan et al (1987) found that moderate to severe separation anxiety disorder occurred in 58 per cent of children and 37 per cent of adolescents with depressive disorders. Moderate to severe phobias with avoidance were found in 45 per cent of children and 27 per cent of adolescents.

Strauss et al (1988) found that nearly 30 per cent of their anxiety disorder patients had major depression and Bernstein (1991), examining a large group of school refusers found that approximately 50 per cent of these adolescents were depressed. Kolvin, Berney and Bhate (1984) also reported that 45 per cent of school refusers had significant depression.

According to Bernstein and Garfinkel (1986), depression is more likely to be manifested in children and adolescents with severe symptoms of anxiety. As a result any assessment should be comprehensive so that possible depressive features are not overlooked. Indeed, Kolvin et al (1991) argued that if a comprehensive assessment is omitted, depression may remain undetected or may be concealed by other symptoms.

Similarly, Last et al (1997) suggest that given the increased impairment in young adults with comorbid anxiety and depressive disorders, the accurate diagnosis and monitoring of depressive symptomatology is crucial in children and adolescents who are referred for treatment of anxiety disorders.

These findings also imply that the treatment of depressive symptoms, if present, should be the primary focus for therapy. In addition, they suggest that early treatment of anxiety disorders should include interventions designed to also prevent any depressive episodes from occurring in the future.

1.9.2 Depression, anxiety and the externalising disorders

In both clinical and community settings, a significant portion of depressed or anxious children and adolescents suffer from multiple psychiatric disorders (Bernstein & Brochardt, 1991; Fleming & Offord, 1990; Kashani et al., 1991). Research suggests that internalising disorders co-exist together with externalising disorders at rates which are often higher than chance (Caron & Rutter, 1991). In particular, depression has been found to co-exist with conduct disorder, although the evidence is less strong for anxiety disorders (Zoccolillo, 1992).

Kovacs, Gatsonis, Paulauskas, & Richards (1988) examined the existence of conduct disorder in a clinical sample of children, where a depressive disorder was the primary diagnosis. Ages ranged from 8 to 13.9 years and follow-up was over several years. The findings from this study indicated that conduct disorder appeared to develop mostly as a complication of the depression, because the onset in most cases occurred after the depression. According to these findings therefore, any random sample of depressed children will contain a large number who are developing conduct disorder.

In their study, Kovacs et al (1988) concluded that depression in children with conduct disorder did not differ in terms of symptoms or course compared with children without conduct disorder. However, Harrington et al (1991), found that children with conduct disorder and depression were much less likely to be depressed when they became adults than children with depression alone.

A review of clinic samples identified moderate rates of anxiety and co-occurring externalising disorders ranging from 2 per cent to 21 per cent (Russo & Beidel, 1994).

In Anderson et al's (1987) study of eleven-year old children in New Zealand, two comorbid categories were identified; these were anxiety with attention deficit disorder and anxiety disorder with conduct and/or oppositional disorder(s). The two categories were not independent however, as 10 subjects were diagnosed with both ADHD and CD. In addition, all children with a diagnosis of depression at the age of 11 had conduct disorder. However, by the age of 15 less than half of the same cohort had comorbid conduct/oppositional defiant disorder (McGee et al., 1990).

Last et al (1987b) reported co-diagnoses of ADHD or OD among 20 per cent of their sample of 73 anxious children. Strauss, Lease, Last, & Francis, (1988) differentiated between younger children (5 to 11 years) and adolescents (12 to 19 years) diagnosed with overanxious disorder and found that 61 per cent of the younger group received co-diagnoses of externalising disorders compared with only 15 per cent of the adolescents. The commonest diagnosis in this study was ADHD and none of the adolescents were given a diagnosis of CD.

Strauss et al's findings suggest that age trends will affect results when child and adolescent subjects are combined in the same sample and this may account for the wide range of prevalence rates reported by Russo & Beidel (1994).

A number of other studies also support these age-related trends with anxiety and comorbid externalising disorders (Livingston et al., 1990; Strauss et al., 1988; Walker et al., 1991).

The findings from epidemiological studies of psychiatric disorder in adults found that a history of conduct disorder or of related symptoms is associated with increased risk of panic, phobic, obsessive-compulsive and major depressive disorder in adulthood. In addition, an adult diagnosis of antisocial personality disorder is also associated with these disorders (Zoccolillo, 1992).

For example, Robins (1986) and Robins and Price (1991) found that conduct disorder predicted adult antisocial behaviour and this was the case whether other disorders were also present. The diagnosis of conduct disorder predicts an antisocial outcome regardless of the presence or absence of internalising disorders. This suggests that, given the poor prognosis associated with conduct disorder, appropriate long-term management must be implemented whether or not other disorders are present (Zoccolillo, 1992).

A number of population studies (McGee & Wilson, 1988; Esser, Schmidt, & Woerner, 1990; Verhulst, Berden, & Sanders-Woudstra, 1985; Vikan, 1985; Robins and Price, 1991) have found that the syndrome clusters of depressive and anxiety disorders occur more commonly in children and adults with conduct disorder and adult antisocial behaviour than in those without (Zoccolillo, 1992).

There is some research to suggest that in ADHD, comorbid anxiety may have a moderating effect on the severity of the ADHD symptoms (Pliszka, 1989; 1992; Newcorn, Sharma, Matier, Hall, & Halperin, 1992). For example, children with comorbid ADHD and anxiety exhibited less impulsivity, less off-task behaviour, fewer co-diagnoses of conduct disorder and were less likely to respond to stimulant medication (Pliszka, 1989, 1992). The moderating effect of anxiety on externalising disorders has also been found with conduct disorder.

In the Isle of Wight study (Graham & Rutter, 1973) subjects classified as suffering from mixed disorder (emotional and conduct) at the age of 10 to 11 years exhibited less psychopathology at the age of 14 to 15 than did subjects classified as having conduct disorder. It seems that with both ADHD and conduct disorder, a co-diagnosis of anxiety may indicate a more positive prognostic outcome. However, research with adolescents has shown that comorbid conduct disorder and anxiety may in fact serve to exacerbate externalising symptomatology (Kashani, et al., 1991).

Further support for these findings comes from a community sample of 879 boys, which showed that over a three-year period, elevated anxiety levels were significantly associated with increased involvement in antisocial behaviours in 13 to 16 year-olds (Loeber et al 1994). Once again there appears to be an age differential, among children, anxiety may serve to moderate the severity of CD, in adolescence, however, the presence of anxiety and CD may point to a risk of continued psychopathology in adulthood.

A number of psychological factors such as self-esteem and locus of control may mediate psychological functioning in children. Low self-esteem places children at risk for both conduct and emotional disorders (Zimmerman, Copeland, Shope, & Dielman, 1997), whilst entrenched beliefs about having little control over important sources of reinforcement and significant aspects of one's situation are also associated with conduct and emotional problems (Furnham and Steele, 1993). In view of this, self-esteem and Locus of Control will now be discussed.

1.10   SELF-ESTEEM

As we grow and develop we experience ourselves in the context of relationships with significant others and the wider world. Our view of the self is linked to our relationships, our life experiences and our surrounding environment (Coleman, 2001). In this way it gradually becomes more integrated and differentiated. James (1890) defined the self as the "sum-total of all the person can call his".

Self-esteem refers to the perception that an individual has of his or her own worth (Battle, 1990). Harter (1983), a prolific writer on the subject of self-esteem defines the construct as, 'one's global regard for oneself as a person', in other words as an unconditional appreciation of oneself. She argues that the unconditional nature of self-esteem is important because if children can accept themselves unconditionally, they may also be better able to accept praise or criticism of their actions without letting this affect their essential sense of self-worth.

Good self-esteem is regarded as a valuable part of the foundation for a child's positive functioning and adaptation to life's experiences and perception of self-worth. Once established, it tends to be fairly stable and resistant to change (Battle, 1990).

According to Battle (1990), self-esteem is a fundamental human need at all stages of childhood development. Its classification as a 'need' is important because low self-esteem has been shown to be associated with low mood, anxiety and underachievement (Rosenberg, 1965, Paananen, 1983).

Self-esteem is not an easily quantifiable entity and as such does not necessarily lend itself readily to measurement or definition. However, a number of measures have been developed as a means of tapping into this psychological construct. The Culture-Free Self-esteem questionnaire (Battle, 1981) is regularly used with children (see the Method section for a detailed review) and was used in this study. Whilst experts may disagree on a number of areas related to self-esteem, in general they do agree that it comprises a number of elements (Battle, 1981, 1990; Coopersmith, 1967). In devising the CFSEI-2 for children, Battle (1990) divided self-esteem components into four areas, general, social, academic and parent-related. Self-esteem is an important psychological concept because children with high self-esteem tend to do better at school and are better able to face challenges in their life with confidence.

Conversely, studies suggest that low self-esteem may contribute to a range of behaviours that lie at the root of many social problems (Zimmerman, Copeland, Shope, & Dielman, 1997). Behaviours such as poor school achievement, truancy, crime, violence, alcohol and drug abuse, teenage pregnancy and suicide are all linked to low self-esteem (White, 1997). As such, self-esteem may be seen as a central mechanism through which these problems can be mediated. If this is the case, an interesting link may be established between children with externalising disorders and self-esteem.

Much of the focus on the influence of self-esteem on psychological well-being has looked at its relation to depression (Andrews, 1998). Self-esteem and depression are closely linked and a number of theories of depression propose that negative self-attitudes bestow vulnerability.

Parental attitudes and parenting style appears to be particularly important in influencing a child's self-esteem (Coleman, 2001). However, as the child moves into adolescence, physical appearance and the attitudes of friends, takes precedence (Harter, 1999).

By 8 years of age, children have developed both global and domain-specific evaluations of their self-worth (Harter, 1982). Moreover, self-esteem development may follow 4 main pathways from childhood through adolescence, characterised as consistently high, moderate and rising, steadily decreasing, and consistently low (Zimmerman et al., 1997). Feelings of competence and adequacy in areas deemed important to the individual, and approval from others are two key factors in the maintenance of healthy levels of self-esteem.

1.11.   LOCUS OF CONTROL

Rotter (1966) conceived the idea of locus of control to explain how human behaviour is contingent upon an individual's perception of their control over external reinforcements. The theory states that someone with a predominantly internal locus of control tends to believe that reinforcements are a consequence of either some action on their part, or of some relatively enduring personal characteristic. As such, a person with an internal locus of control will feel that they have control over reinforcements.

An individual with a predominantly external locus of control on the other hand is likely to believe that reinforcements are not within their control and are determined more by the situation itself, by the actions of others or by fate, luck or chance. As a result, they may feel that they have little or no control over reinforcements (Rotter, 1966).

In order for a given behaviour to occur an individual must believe that there is a causal relationship between this behaviour and the reward. Thus, the theory predicts that, how a person reacts in a given situation will depend on the degree to which they perceive that any reward follows from, or is contingent upon, their behaviour or attributes in that situation (Rotter, 1966). Locus of control, then, is about whether an individual feels empowered in a given situation or not.

Locus of control does not appear to be fixed, and a number of studies have shown that it can be changed. For example, Reimani (1971) investigated a group of school teachers who, through careful use of praise and rewards, were encouraged to help children to develop a more internal locus of control in the classroom. The results indicated that after the trial period, the children showed a significant increase in internality compared with their scores at the start of the experiment. It has also been found that locus of control may change in response to distressing life events Docherty (1983). For example, women who have been through the trauma of divorce showed an increase in external locus of control at the time, which tended to drop back to a more internal level as they begun to acclimatise to the change. It also seems that people do not have only one single locus of control.

Perceptions of our abilities differ from one situation to another. In some situations we expect to be able to take effective action, whilst in others, we may perceive ourselves to be less capable. Research, therefore, has looked at people's beliefs about self-efficacy and how these may influence and change behaviour.

It has been suggested that a high externalising score on measures of Locus of Control is related to maladjustment, low academic achievement, poor physical health and functioning (Furnham and Steele, 1993).

As noted in previous sections, the child does not exist in isolation. Parenting styles and attitudes are interwoven with individual attributes of the child. The interplay between these two can affect both parent and child in different ways, and this will be discussed in the next section.

1.12 TEMPERAMENT AND PARENTAL STRESS

A child's temperament and way of behaving, that is whether they are perceived as 'easy' or 'difficult' to manage will impact on the way in which the parent, and others, respond to it (Thomas and Chess, 1977). In general, a child with an easy temperament - one who is generally good-natured and adaptable in and responsive to, new situations - will be rewarding to care for. Such a child will enhance an individual's sense of being a good and effective parent and in turn engender a feeling of well-being in that individual (Herbert, 1998). However, the child with a 'difficult' temperament, who may be particularly troublesome to rear, may place greater demands on the parent both in terms of their patience and their belief in themselves as an effective and good parent (Earls, 1981; Graham, Rutter and George, 1973).

Of course, a child's temperament is also shaped by environmental factors such as parental characteristics, and there will be constant adjustments in the pattern of interaction between parent and child as one reinforces the other positively or negatively. Thus a mismatch of temperaments between parent and child can lead to an extended series of mutually unrewarding interactions (Herbert and Iwaniec, 1981).

It has been suggested that the total stress a parent experiences is a function of certain salient child characteristics, parental characteristics and situational variables, and that the early identification of stressful parent-child systems, and intervention efforts aimed at reducing stress, have the potential for reducing the frequency and intensity of emotional and behavioural disturbance among children (Abidin, 1995). The aetiology of emotional and behavioural problems in children can be viewed as a combination of child and parent characteristics.

Studies suggest that the existence of excessively stressful characteristics in a child contribute greatly to the development of behavioural disturbances (Goodman & Cameron, 1978; Thomas, Chess & Birch, 1968). In addition, stress in the 'parenting system' during the first three years of an infant's life is critical with regard to the child's emotional and behavioural development.

Therefore, the combination of child and parent characteristics, family context and stress within the parenting system may be identified as important factors in the aetiology of disruptive and emotional difficulties in children (Abidin, 1990; Kohnstamm, Bates, & Rothbart, 1989; Martin, Olejnik, & Gaddis, 1994; Sheeber & Johnson, 1992).

1.13   RATIONALE FOR THE CURRENT STUDY

The literature reviewed in this section indicates that comorbidity in children presenting to Child and Family Mental Health Clinics is high. The current study aimed to compare levels of comorbidity for children with externalising disorders as well as measures of anxiety, depression, self-esteem and locus of control for children with internalising and externalsing disorders referred to one team of a Child and Family Clinic. In addition, levels of parental stress were assessed in order to determine whether parents of children with externalising disorders presented with significantly higher levels of parental stress than parents of children with internalising disorders.

1.14   HYPOTHESES

The hypotheses being tested are outlined below:

Hypothesis one

It is hypothesised that there will be significant correlations between levels of depression, anxiety, self-esteem and locus of control, for children presenting with an internalising disorder, but that no such correlations will exist for children presenting with an externalising disorder and, mean scores between the two groups will be significantly different on all measures (CDI, RCMAS, CFSEI and Locus of Control Scale).

Hypothesis two

It is hypothesised that children with an externalising disorder will also obtain elevated anxiety and depression scores as measured by the Children's Depression Inventory and the Revised Children's Manifest Anxiety Scale.

Hypothesis three

It is hypothesised that parents of children with an externalising disorder will experience greater levels of stress than parents of children with an internalising disorder, as measured by the Parenting Stress Index.

2. METHOD

2.1 Design

The study is based on a between-subjects design (internalising versus externalising) looking at differences between psychological factors in children presenting with internalising and externalising disorders.

2.2 Participants

Participants were children and their parents who were referred to the North Edinburgh Team of the Child and Family Mental Health Service, Royal Hospital for Sick Children, Edinburgh, between March and June 2001. The catchment area for the team stretches from South Queensferry in the West of Edinburgh, to Portobello in the East. Family GPs and School Paediatricians are the main referring agents to the team.

Participants were 23 Children, 3 females and 20 males aged between 8 to 11 years. The mean age was 9.6 years with a standard deviation of 1.16. Children were excluded from the study if English was not their first language, or if they had learning difficulties, which would impair their ability to understand and answer the questions.

Gender	Number	Mean age	St.Dev	Age range
Male	20 (87%)	9.7	1.17	8.1 – 11.9
Female	3 (13%)	9.0	1	8.11 – 10.10

Of the 29 parents contacted, two said that they did not wish to take part in the study, a further 4, who had opted to respond by post, failed to return the questionnaires, despite follow-up telephone calls.

2.3 Materials and Measures

For the purpose of the research, five well-standardised self-report measures were used. These are outlined below.

2.3.1 Children's Depression Inventory (CDI), Kovacs and Beck, (1977).

The Children's Depression Inventory is a 27-item self-rated symptom oriented scale suitable for children aged 7 to 17 years (Kovacs, 1986). First developed in the late 1970's and based on an adult scale, the Beck Depression Inventory (Beck, et al 1961), the CDI has been subject to rigorous psychometric examination in both normal and clinical children's populations.

The CDI manual (Kovacs, 1992) states that the CDI requires the lowest reading level of any measure of depression for children (Berndt, Schwartz & Kaiser, 1983; Kazdin & Petti, 1982). Each item consist of three choices, marked 0, 1 or 2 with '0' representing an absence of the symptom, '1' representing the presence of the symptom in mild form and '2' representing the definite presence of the symptom. The child is asked to choose which of the three statements best describes him or her over the past two weeks, by ticking the box next to the item. An example is provided below.

I am sad once in a while (0)

I am sad many times (1)

I am sad all the time (2)

The CDI total score ranges from 0 to 54. Approximately 50 per cent of the items begin with the choice that reflects the greatest symptom severity. The remaining items begin with the choice that reflects the absence of the symptom.

The scale is able to discriminate between youngsters with a psychiatric diagnosis of major depressive or dysthymic disorder and those with other psychiatric conditions or non-selected "normal" school children. In addition, it is sensitive to changes in depression over time and is therefore a useful tool for baseline measurement. As well as the total score, the CDI is divided into 5 factor scales: negative mood, interpersonal problems, ineffectiveness, anhedonia and negative self-esteem.

Raw scores are converted to T-scores, from which comparison with the normal population can be made. In general, T-scores (standardised scores) of 65 or over (a raw score equivalent of 19 or greater) are considered significant for children studied in a clinical setting. It should be noted, however, that the CDI norms are taken from a sample of 1,266 American children. As such, they may not be entirely valid for the sample of Scottish children assessed in this study.

Factor analyses indicate two major findings. Firstly, that there are five primary factors (as indicated above) and that these factors are significantly intercorrelated, and secondly that there is a single second-order factor of childhood depression that accounts for the relationships of the 5 primary factors.

Test-retest reliability correlations taken from the research literature range from .38 to .83 (Saylor et al, 1984; Kaslow, Rehm & Siegel, 1984). Kovacs concludes that the CDI has an 'acceptable' level of test-retest reliability. However, because the CDI is a "state" measure, as opposed to a "trait" measure, of depression, test-retest reliability may not necessarily be high.

Internal consistency reliability co-efficients ranging from .71 to .89 (Kovacs, 1983; Smucker et al., 1986) indicate the CDI has acceptable internal consistency.

Evidence for the validity of the CDI comes from an extensive range of research studies and has been well established using a number of different techniques. As a result, Kovacs (1992) argues that the inventory assesses important constructs, which have strong explanatory and predictive utility in the characterisation of depressive symptoms in children and adolescents. In addition, the CDI has demonstrated strong correlations with measures of related constructs such as anxiety and self-esteem.

The CDI can be interpreted in greater or lesser detail depending on the requirements of the user. For the purpose of this study, individual factor scores as well as total CDI scores were taken.

2.3.2 Revised Children's Manifest Anxiety Scale (RCMAS), Reynolds and Richmond (1994).

The RCMAS, subtitled "What I Think and Feel" is a 37-item self-report measure, which is based on an adult scale. It is suitable for children and adolescents between 6 and 19 years of age and is designed to assess the level and nature of anxiety in this group. The child is required to give yes or no answers to items which focus on physiological symptoms of anxiety and anxiety provoking situations, for example, "often, I have trouble breathing" or, "I worry about what other people will think about me".

There are 28 items measuring anxiety and 9 lie items. In addition, there are 3 anxiety sub-scales: (a) Physiological anxiety, (b) Worry/oversensitivity, (c) Social concerns/Concentration, and (d) Lie. Items are scored 0 or 1 depending on the child's response. A response of "Yes" indicates that the item is descriptive of the child's feelings or actions, while a response of "No" generally indicates that it is not. The "Yes" responses are counted to ascertain the total anxiety score.

Possible total scores range from 0 to 28 with higher scores indicating a greater level of anxiety. The lie score ranges from 0 to 9 with higher scores indicating a greater need for social desirability. Once summed, the total raw scores are converted to scaled scores for comparison against normative data.

The authors report internal consistency at 0.78 for the Total Anxiety score from a sample of 329 school children. With regards to the anxiety sub-scales Cronbach alpha values ranging from between 0.52 and 0.92 were reported. The test-retest reliability coefficient in a sample of 534 school children tested nine months apart, was reported by Reynolds (1981a) at .68 for the Total Anxiety score. With regard to validity, Reynolds (1985) reported a correlation of 0.78 for the Total Anxiety score with the State-Trait Anxiety Inventory for Children Trait scale (STAIC; Spielberger, 1973). In general, the RCMAS is deemed to be a reliable and valid measure of chronic anxiety in children.

2.3.3 Battle Culture-free Self-esteem Inventory (CFSEI-2), Battle – Form B (1992)

The CFSEI is a self-report inventory, developed by Battle, in the course of several years' work with students and clients as a means of measuring an individual's perception of self. It is a multidimensional measure of self-esteem.

The CFSEI-2 for children was standardised on boys and girls in the United States and Canada in Grades 2 to 9 (ages 8 to 16). Form B, which contains only 30 items, is a shorter version of Form A, containing 60 items. Both forms yield scores on academic, social, parental and general self-esteem and include a lie scale. Battle defines these areas as follows:

- General Self-Esteem is the aspect of self-esteem that refers to individuals' overall perception of their worth
- Social Self-Esteem is the aspect of the self-esteem that refers to individuals' perceptions of the quality of their relationships with peers.
- Academic Self-Esteem (i.e. school-related self-esteem) is the aspect of self-esteem that refers to individuals' perceptions of their ability to succeed academically.
- Parent-Related Self-Esteem is the aspect of the self-esteem that refers to individuals' perceptions of their status at home – including their subjective perceptions of how their parents or parent surrogates view them.

The items are divided into two groups: those that indicate high self-esteem and those that indicate low self-esteem and the child is required to answer either yes or no to each item.

The CFSEI-2 is a useful research and clinical tool (Battle, 1992). Clinically, it is a useful tool for baseline measurement and ongoing assessment and offers a helpful starting point for therapy, by identifying specific areas of difficulty for the child with regards to self-esteem. Administration takes from 10 to 15 minutes.

CFSEI-2 scores are obtained by summing the checked items that indicate high self-esteem and excluding the Lie scale items. Form B contains 25 self-esteem items and 5 Lie items. Therefore, the highest possible self-esteem and Lie scores are 25 and 5 respectively. In addition, separate scores for each sub-test can be computed to provide a more detailed assessment. Once raw scores are obtained for total self-esteem and subtests, they can be converted into corresponding percentiles and T scores for comparison against normative data.

The correlation between the Form A and Form B is reported at .86. Test-retest reliability has been reported at .79 to .92. Content validity was built into the CFSEI-2 by developing a construct definition of self-esteem and by writing items intended to cover all areas of the construct. Internal consistency was measured via factor analysis. Alpha coefficients for the five subtests for Form A were as follows: General, .71; Social, .66; Academic, .67; Parents, .76; Lie (defensiveness), .70. A comparative study was conducted between the CFSEI (Form A) for children and the Self-esteem inventory (Stanley Coopersmith, 1967) to assess concurrent validity. Correlations ranged from .71 to .80. A fuller review of research studies investigating the psychometric properties of the CFSEI-2 can be found in the examiner's manual (Battle, 1992).

2.3.4 Locus of Control Questionnaire from the Child Psychology Portfolio, Norwicki and Strickland (1973).

This is a 40-item scale designed to measure Rotter's construct of locus of control. It was developed for, and validated on, children aged between 9 to 18 years of age. It is one of the first and most widely used locus of control scales for children. Derived from Rotter's formulation of locus of control, the 40 items of the scale were taken from an initial pool of 102. The measure provides a single, dimensional score of the degree of external/internal locus of control. Items are rated either 'yes' or 'no' and are summed to derive a total score. A high score indicates an external locus of control.

No clear guidelines are provided with regard to identifying extreme scores, however, the authors do provide means and standard deviations for selected age and sex groups which can be used to identify children who have scores falling one standard deviation above the mean.

Internal consistency, using split half-reliability was estimated at .63 for 9-11 year old children. A test-retest reliability of .63 was also obtained for 9-year-olds (Norwicki and Strickland, 1973). To assess validity the measure was correlated with a number of other measures of locus of control. A correlation of .41 was found with the Bailer-Cromwell score. The authors suggest that although the measures shows only modest reliability it nevertheless has proved to be a sensitive indicator of locus of control.

It should be noted that the manual does not provide means and standard deviations for 8 year olds. Therefore, estimates of extreme scores for this age group were based on the researchers own judgement, i.e. 21 and above.

2.3.5 The Parenting Stress Index Short Form (PSI/SF) Abidin (1995).

The PSI was developed to examine three domains: child characteristics, parent characteristics and situational/demographic life stress which are all thought to make an important contribution to the aetiology of parental stress. The PSI/SF is a direct derivative of the PSI full-length test.

The PSI/SF contains 36 items, which provide a measure of Total Stress. In addition, three subscales: Parental Distress, Parent-Child Dysfunctional Interaction and Difficult Child provide an indication of the particular sources of stress for the parent involved. The PSI/SF also includes a Defensive Responding scale, which assesses the extent to which the parent approaches the questionnaire with a strong bias to present the most favourable impression of himself or herself and to minimise indications of problems or stress in the parent-child relationship. Scores of 10 or below indicate Defensive Responding. The Total Stress score is designed to provide an indication of overall level of parenting stress an individual is experiencing.

It reflects the stresses reported in the areas of personal parental distress, stresses derived from the parent's interaction with the child, and stresses resulting from the child's behavioural characteristics. Parents who obtain a total score of 90 (at or above the 90th percentile) are considered to be experiencing clinically significant levels of stress. The PSI manual states that these parents should be referred for a closer diagnostic study and for professional assistance. The Parental Distress (PD) subscale purports to measure the level of distress a parent is experiencing in his or her role as a parent. The component stresses associated with the PD subscale are impaired sense of parenting competence, stresses associated with the restrictions placed on other life roles, conflict with the child's other parent, lack of social support, and presence of depression, which is associated with dysfunctional parenting.

The Parent-Child Dysfunctional Interaction subscale (P-CDI) focuses on the parent's perception that his or her child does not meet the parent's expectations and that the interactions with the child are not reinforcing to him or her as a parent. The child may be seen as a negative element in the parent's life. The parent may perceive that he or she is being abused by or rejected by the child, or may be disappointed in and alienated from the child. High scores on this subscale suggest that the parent-child bond is either threatened or has never been adequately established. The PSI manual states that scores above the 95th percentile may place the child at risk for abuse in the form of neglect, rejection or physical abuse (MacInnis, 1984; Mash & Johnston, 1983b, Mash et al., 1983). If all the scale scores are above the 90th percentile, then the manual suggests that greater credibility be given to this interpretation. The Difficult Child (DC) subscale focuses on the basic behavioural characteristics of children that make their management either easy or difficult. These characteristics are often rooted in the child's temperament but also include learned patterns of disruptive behaviour (Breen & Barkley, 1998; Goldberg et al., 1990; Johnson et al., 1984; Webster-Stratton, 1988). For children of 2 years or older high scores are related to measures of child-behavioural adjustment.

Parents of these children are likely to have difficulty managing their behaviour in terms of setting limits and gaining the child's cooperation. Once again, the manual suggests that for scores at or above the 95th percentile further investigation might needed.

Test-retest reliability was assessed from a sample of 530 mothers over a 6-month retest interval. A reliability correlation coefficient of .84 was obtained for the Total Stress score and .85, .68 & 0.78 for PD, P-CDI & DC respectively. For internal consistency alpha coefficients were estimated at .91 for Total Stress and .87, .80 & .85 for PD, P-CDI & DC respectively. With regard to validity the PSI/SF was correlated with the PSI full-length form. Total Stress on the full-length PSI correlated .94 with PSI/SF Total Stress. In addition, the PSI subscale scores were correlated highly with the subscale scores on the PSI/SF. For example, a correlation of .92 was found between the Parent Domain subscale score and the Parent Domain score on the full-length PSI. The Difficult Child subscale correlated with the Child Domain on the full-length PSI at .87 and a correlation of .73 and .50 was found between the Parent-Child Dysfunctional Interaction subscale and the Child Domain and Parent Domain scores from the full-length PSI, respectively.

2.4 Procedure

Permission to conduct the research was sought from the Lothian Ethics Committee and Research & Development Committee of the Lothian Primary Care Edinburgh Trust. In addition, the rationale for the project was discussed with the members of the North Edinburgh Team of the Child and Family Mental Health Service, RHSC.

Following Ethics approval, the North Edinburgh Team's waiting list was checked on a weekly basis in order to identify subjects who fulfilled the inclusion criteria for the study. Once identified, the researcher obtained home telephone numbers from the case notes or, in some instances if no telephone number was listed, by contacting the referring agent for assistance. The researcher then contacted the parents or carers by telephone to explain the rationale and to ask for permission to include their children in the study.

In the first instance, the researcher visited the child at home in order to oversee the completion of questionnaires and to answer any questions that the child or parent might have. The researcher attempted to make data collection as unobtrusive as possible for those who had agreed to take part. In order to do this data was collected in the evenings or during the researcher's study days, depending on the participants' preference.

Where home visits were carried out, which was in the majority of cases, attempts were made to use a quiet room in which the child could complete the questionnaires away from their parents and without disruption. Unfortunately, this was not always possible. Parents completed the Parenting Stress Index at the same time as the child completed his or her battery of measures. In order to aid accuracy and understanding and to expedite the process, the researcher assisted the child, where necessary, with reading the instructions and the questions for each measure. The child responded to each question by either ticking the relevant box or indicating his or her answer to the researcher for her to mark.

On occasions where the child was unable to decide upon an answer the question was left and returned to once the remaining questions in the scale had been completed. In all cases, the child was encouraged to try to pick the answer, which fitted him or her best at that time.

Administration time for the battery of tests was between 30 to 45 minutes. This depended on how quickly the child settled and engaged with the researcher in completing the questionnaires and how much supervision was required in their completion. A number of parents preferred that the questionnaires and information be sent by post. A stamped addressed envelope was included to assist their return.

Once collated, the questionnaires were scored and the data were input into the computer and analysed using the Statistical Packages for the Social Sciences (SPSS Version 10).

3 RESULTS

3.1 Demographic Data

Twenty-three children participated in the study, 20 boys and 3 girls. Of these participants, 11 presented with an externalising disorder, 10 with an internalising disorder and 2 with a somatic complaint. Children's ages ranged from 8 to 11 years.

Information regarding marital status, family size and the presenting problem are shown in Tables 3.1, 3.2 and 3.3. Status as per Internalisers and Externalisers was determined by the information provided in the referral letter.

Table 3.1

Marital Status	Number in sample
Married	12 (54%)
Divorced	2 (8.7%)
Separated	5 (21.7%)
Single Parent	3 (13%)
Missing	1 (2.6%)

Table 3.2

Children in Family	Number in sample
1	3 (13%)
2	11 (47.8%)
3	6 (26.1%)
4	2 (8.7%)
Missing data	1 (4.4%)

Table 3.3

Problem	Number in sample
Externalising	11 (47.8%)
Internalising	10 (43.5%)
Somatic	2 (8.7%)

3.2 Exploratory data analysis

The Kolmogorov-Smirnov test indicated that the total scores on the CDI, R-CMAS, CFSEI-2, Locus of Control, and PSI/SF met the assumptions for normal distribution (see Table 3.10 in appendices).

3.3   Description of the Sample

Table 3.4

Participants	N	CDI *Mean* *(SD)*	RCMAS* Mean *(SD)*	CFSEI* Mean *(SD)*	LOC Mean *(SD)*	PSI Mean *(SD)*
Males	20	14.75 (6.73)	14.58 (5.22)	16.86 (5.57)	18.65 (4.03)	103.8 (21.3)
Females	3	5 (4.58)	5 (2.83)	15.84 (0.58)	16.33 (5.86)	73.6 (34.9)
Total	23	13.5 (7.23)	13.67 (5.76)	23.33 (5.79)	18.35 (4.22)	99.9 (24.7)

(* N = 21; 19 males, 2 females)

3.3.1   Children's Depression Inventory

Levels of depression were measured using the CDI. The group mean for this sample was compared with the published normative data (Kovacs, 1983), Mean = 10.5, SD = 7.3. The mean score for this sample is higher at 13.5 but nevertheless falls within one standard deviation of the mean. The difference between the sample mean and published normative data is non-significant.

The authors suggest two cut-off points to identify possible cases of depression depending on the sample population used. In a clinical setting, the recommended cut-off point is relatively low, between 12 or 13 in order to minimise the number of false negative cases. In this sample, 14 (61 per cent) of the children obtained a score of 12 or more. If the higher cut-off of 19 is used (for normal population samples), this figure changes to 7 (30.4 per cent). More recently, Fundudis, Berney, Kolvin, Famuyiwa, Barrett, Bhate & Tyrer (1991) have suggested a score of 15 or above on the CDI to be indicative of depression. If this guide is used then 9 (39 per cent) of the children in this sample meet the criteria for depression as measured by the CDI.

3.3.2   Revised Children's Manifest Anxiety Scale

Levels of anxiety were measured using the RCMAS. Data were only available for 2 of the 3 girls, Mean = 5, SD = 2.83. The norms for the RCMAS give percentiles and T scores (mean = 50, Std Dev = 10) for sex and different age groups. The 2 females in this sample were aged 9 and 10 and gained scores of 7 (20th percentile, T = 42), and 3 (10th percentile, T = 37) respectively.

When compared with the age-group norms, both girls' scores were within or below one standard deviation of the mean. The means, standard deviations and percentiles for the 19 boys are shown in Table 3.5 below. Seven (37 per cent) of the boys in this sample experienced clinically significant levels of anxiety (1 standard deviation above the norm) according to this measure.

The RCMAS includes a Lie subscale. Items on this scale represent examples of ideal or socially desirable behaviour such as "I am always kind". A scaled score of 13 or above on the Lie scale may indicate that the respondent is 'faking good'. It is recommended that the Lie score be considered when looking at the total anxiety score because a high score on both may indicate that the respondent was answering yes to every item or trying to please the examiner. In this sample, 2 of the 7 children with clinically significant total anxiety scores also obtained a Lie scale score of 13 or above.

Table 3.5

Age	N	Mean	Percentile
8	4	13.5	60.5
9	2	20	90
10	7	15.4	72
11	6	12.5	67

3.3.3   Culture Free Self-Esteem Inventory

Possible scores on the CFSEI range from 0 to 25, in this sample scores ranged from 4 to 25. High scores on this measure (19) are thought to indicate high self-esteem.

Data for girls were limited to 3 cases. The data were compared with norms for the age group. 2 cases obtained a total score of 23 (92 percentile, T score = 64), 1 case obtained a score of 24, (98 percentile, T score = 67) indicating very high scores for all girls on this measure. For boys, total self-esteem scores ranged from 4, indicating very low self-esteem, to 25 indicating very high self-esteem. The mean group score falls within one standard deviation of the published mean score.

Thirty-nine per cent (n=9) of the children (21 per cent (n=5) internalising, 17 per cent (n=3) externalising, 1 per cent (n-1) somatic) obtained scores placing them in the High to Very High categories for self-esteem, all these children obtained CDI scores one standard deviation below the norm. 21 per cent (n=5) (8 per cent (n=2) externalising, 13 per cent (n=3) internalising), gained scores in the Low to Very Low categories for self-esteem, these children obtained CDI scores above the cut-off said to indicate significant levels of depression.

3.3.4   Locus of Control

High scores on the Locus of Control questionnaire (>21) indicate a predominantly external locus of control. Possible scores range from 0 to 40. In this sample the mean score falls within one standard deviation of the norm for 9 – 11 year-olds. Unfortunately, norms were not available for 8 year olds.

When 8-year-olds and girls were excluded from the analysis, Mean = 18.57, SD = 3.34. Six children obtained scores indicating a predominantly external locus of control.

3.3.5   Total Parenting Stress

Possible total scores on the PSI/SF range from 36 to 180. In this sample, fifteen (65 per cent) of the 23 parents obtained scores at or above the 90th percentile, which indicates clinically significant levels of stress on this measure. Of these 15 parents, 10 (66.7 per cent) had children with an externalising disorder, 4 (26.7 per cent) with an internalising disorder and 1 (6.7 per cent) with somatic problems. Only 2 (9 per cent) parents obtained scores below the 15th percentile. The remaining 6 (26 per cent) parents obtained scores within the normal range.

3.4   HYPOTHESIS 1

It is hypothesised that there will be significant correlations between levels of depression, anxiety, self-esteem and locus of control, for children presenting with an internalising disorder, but that no such correlations will exist for children presenting with an externalising disorder and, mean scores between the two groups will be significantly different on all measures (CDI, RCMAS, CFSEI and Locus of Control Scale).

3.4.1   Correlations

Correlations were carried out to assess whether the relationship between measures differed depending on whether children presented with an internalising or externalising disorder.   (These are shown in Table 3.11, 3.12 & 3.13 in the appendices)   The results indicate that the pattern of correlation between the two groups is similar.

Internalising Group

Total CDI scores were significantly correlated with Total RCMAS scores (r = .747) and Total CFSEI scores (r = -.905).

Externalising Group

Total CDI scores were significantly correlated with Total RCMAS scores (r = .692) and Total CFSEI scores (r = -.657).

CFSEI and Locus of Control scores were significantly negatively correlated at the 0.05 level for internalising but not for externalising disorders (r=-.697).

For both groups, no significant correlations were found for CDI, RCMAS and Locus of Control or for RCMAS and CFSEI. Of interest in this analysis is that higher associations were found across the measures for the internalising group and possible reasons for this will be considered in the discussion.

3.4.2 Independent Samples t-test

Independent t-tests (see Table 3.6) revealed no significant differences between the two groups regarding mean CDI, RCMAS, Locus of Control and CFSEI scores. CDI (t=.239, df=19, p < .814); RCMAS (t=.401, df=17, p < .693) L of C (t=1.097, df=19, p < .286); CFSEI (t=.421, df=18, p <.679)

Table 3.6	Problem	No	Group Mean (SD)	df	t	Sig (2-tailed)
Total CDI	Internalising	10	14.10 (7.20)	19	.239	0.814
	Externalising	11	14.82 (6.57)			
Total anxiety score	Internalising	9	14.00 (5.70)	17	.401	.693
	Externalising	10	15.00 (5.16)			
Locus of control	Internalising	10	17.60 (3.78)	19	1.097	.286
	Externalising	11	19.64 (4.63)			
Total self esteem	Internalising	9	17.22 (6.83)	18	.421	.679
	Externalising	11	16.09 (5.19)			

Because there were only 3 girls in this sample, one of whom was referred for behavioural problems, a further t-test was carried out with females excluded. Once again no significant differences were found. CDI (t=.440, df=17, p < .665); RCMAS (t=.774, df=16, p < .450) L of C (t=.562, df=17, p < .581); CFSEI (t=.395, df=16, p <.698). Table 3.7 shows means and standard deviations for this group.

Table 3.7 (males only)	Prob	N	Mean	SD
Total CDI	Internalising	9	14.56	7.49
	Externalising	10	15.90	5.80
Total RCMAS	Internalising	9	14.00	5.70
	Externalising	9	15.89	4.59
Locus of control	Internalising	9	18.22	3.42
	Externalising	10	19.30	4.74
Total CFSEI	Internalising	8	16.50	6.93
	Externalising	10	15.40	4.90

Summary

Results of this analysis indicate a similar pattern of association between the two groups on all measures except for CFSEI and locus of control, where a significant negative correlation at the 0.05 level was found for internalisers but not for externalisers.

It is of interest that across measures, the pattern of association was higher in the internalising group. This finding was particularly true for depression and self-esteem, where an almost perfect positive correlation was obtained. Greater consideration will be given to this finding in the discussion.

In order to test whether group means differed on measures of depression, anxiety, self-esteem and locus of control, independent t-tests were carried out. Results showed no significant differences between the groups.

In general, these results do not support the first hypothesis, finding a that the pattern of association between the two groups was similar across measures and that there were no significant differences between the group means on the CDI, RCMAS, CFSEI and Locus of Control Questionnaire.

3.5   HYPOTHESIS 2

It is hypothesised that children with an externalising disorder will also obtain elevated anxiety and depression scores as measured by the Children's Depression Inventory and the Revised Children's Manifest Anxiety Scale.

3.5.1   CDI

5 (45 per cent) children with an externalising disorder obtained scores above the CDI cut-off of 15 (Fundudis et al., 1991), indicating significant levels of depression. Scores ranged from 16 to 24.

(4 (40 per cent) children with an internalising disorders obtained scores above the CDI cut-off, ranging from 16 to 27).

3.5.2 RCMAS

4 (36 per cent) children with an externalising disorder obtained scores 1 standard deviation above the mean, indicating significant levels of anxiety.

(3 (30 per cent) children with an internalising disorder obtained scores 1 standard deviation above the mean, indicating significant levels of anxiety).

3.5.3 CDI & RCMAS

A significant correlation (r=.692) at 0.05 level between CDI and RCMAS scores for externalising disorders was obtained, indicating that higher scores on the CDI were associated with higher scores on the RCMAS.

Further examination of the data showed that 3 (27 per cent) children in the externalising group obtained scores that indicated significant levels of comorbid anxiety and depression as measured by the CDI and RCMAS. Similarly, 3 (30 per cent) children in the internalising group obtained scores indicating levels of comorbid anxiety and depression as measured by the CDI and RCMAS.

Summary

The results indicate that 45 per cent (N=5) of children with an externalising disorder also presented with comorbid symptoms of depression.

36 per cent (N=4) of children with an externalising disorder also presented with comorbid symptoms of anxiety. Furthermore, 27 per cent (N=3), of the children presented with comorbid symptoms of depression and anxiety.

The results partially support the hypothesis that children with externalising disorders will also present with comorbid anxiety and depression. It is of interest that mean levels of anxiety and depression were similar in both groups. This suggests that internalising symptoms are as common in children with externalising disorders as they are in children with internalising disorders.

3.6   HYPOTHESIS 3

It is hypothesised that parents of children with externalising disorders will experience greater levels of stress than will parents of children with internalising disorders, as measured by the Parenting Stress Index.

The results of the independent t-test suggest that the parents of children with externalising disorders experienced significantly higher levels of stress than did the parents of children referred with internalising disorders (t= 2.925, df=19, p <.009). (See Table 3.8). When females were excluded the results were still significant (t=2.439, df=17, p <.026).

Table 3.8	Problem	N	Group Mean (SD)	df	t	Sig (2-tailed)
Total Parenting Stress	Internalising	10	87.70 (22.86)	19	2.925	.009**
	Externalising	11	111.82 (14.36)			

Further t-tests were carried out to look at differences on the PSI sub-scales between the two groups. Results indicated significant differences between internalising and externalising disorders on the Difficult Child (t=4.140, df=19, p <.001) and Parental-Child Dysfunctional Interaction (t=2.184, df=19, p<.042) subscales but not on the Parental Distress (t=.379, df=19, p <.458) or Defensive Responding (t=.757, df=19, p <.709) subscale. (See Table 3.9)

Table 3.9	Problem	N	Group Mean (SD)	df	t	Sig (2-tailed)
PCDI	Internalising	10	26.00 (9.19)	19	2.184	0.042*
	Externalising	11	33.64 (6.76)			
Difficult Child	Internalising	10	31.80 (9.37)	19	4.140	0.001**
	Externalising	11	46.73 (7.10)			
Parental Distress	Internalising	10	29.90 (11.17)	19	.379	.458
	Externalising	11	31.45 (7.41)			
Defensive Responding	Internalising	10	18.40 (6.95)	19	.757	.709
	Externalising	11	20.36 (4.84)			

In addition, because a child's self-esteem has been found to be associated with parental attitudes, a correlational analysis looked for differences between the two groups on the subscales of the PSI and the Parental self-esteem scale of the CFSEI. Significant correlations were found for internalisers but not for externalisers (see Tables 3.14 & 3.15 in Appendices).

Significant correlations were found between the P-CDI (r = -.831) and DC (r = -.821) subscale of the PSI and the parental self-esteem subscale of the CFSEI for internalising disorders, suggesting a strong link between parental attitudes and the child's self-esteem.

Summary

The results of this analysis indicate that, parents of children with externalising disorders experience significantly greater levels of stress than the parents of children with internalising disorders. In particular, it appears that dysfunctional patterns of interaction between parent and child and 'difficult' characteristics of the externalising child accounts for the differences between the two groups. Nevertheless, there is a stronger negative association between parental self-esteem and parental attitudes for the internalising child. The results of this analysis support the third hypothesis that parents of children with externalising disorders will experience significantly greater levels of stress than will parents of children with internalising disorders.

4.   DISCUSSION

In this section the results of the study will be discussed in relation to the hypotheses outlined in Section 1. In addition, methodological considerations, the limitations of the study and possible future research areas will be addressed.

The study sought to investigate a number of psychological factors related to emotional and behavioural disorders in children. Specifically, these were whether differences would be evident on measures of depression, anxiety, self-esteem and locus of control for children with externalising and internalising disorders; whether comorbid anxiety and depression were present in children with externalising behaviours and whether the parents of children presenting with these behaviours experienced greater levels of stress, as measured by the Parenting Stress Index.

With regard to the three hypotheses, the results indicated that:

- The pattern of association and mean group scores for the different measures were similar for internalisers and externalisers.

- Elevated levels of anxiety and depression were present in a number of children with externalising disorders.

- Levels of parental stress did differ between the two groups, with parents of externalisers experiencing greater levels of stress.

These results, and their implications, will now be considered in greater detail.

4.1   Hypothesis One

4.1.1   Depression, anxiety, self-esteem and locus of control

To test hypothesis one, correlations and Independent t-tests were carried out. The results of the correlational analysis indicated that the association between the measures, for both groups, was similar. Scores on the Children's Depression Inventory were significantly positively correlated with the measure of anxiety and significantly negatively correlated with self-esteem for children with internalising and externalising disorders. However, differences were observable between the groups in terms of the pattern of association between locus of control and self-esteem, with a significant negative correlation for internalisers but not externalisers. It is interesting that for all measures, stronger associations were evident for children in the internalising group. In particular, an almost perfect negative correlation was found between scores on the Children's Depression Inventory and the Culture Free Self-Esteem Inventory. No association was found between self-esteem and anxiety for either group.

That depression and self-esteem are significantly correlated is to be expected given the strong link between the two psychological constructs. Indeed, some writers have suggested that low self-esteem may even be a precursor to depression, as a negative self-attitude may bestow vulnerability and may make the individual more prone to psychological problems, such as depression (Beck & Beamesderfer, 1974; Coopersmith, 1967). Support for this view comes from Blackburn and Eunson's work (1989), which found that women with low self-esteem were twice as likely as those without to become depressed. A similar association has also been found in adolescents. For example, using the Culture Free Self-Esteem Inventory (Form AD) Battle (1992) demonstrated that adolescent subjects who obtained higher self-esteem scores tended to obtain lower depression scores. The results of this study support Battle's findings, suggesting that the same is also true for middle childhood.

However, why a stronger association was found across measures for children with internalising disorders is not clear. A number of tentative suggestions could be posited. For example, it is possible that self-report questionnaires, designed to measure emotional difficulties such as depression and anxiety, are more sensitive to detecting levels of distress in children with internalising disorders. For example they may be less likely to tap into the symptoms of masked depression often associated with externalising disorders. In masked depression (Glaser, 1968) the underlying features are masked symptoms not usually associated with depression such as somatic complaints, behavioural problems and delinquent behaviour, school phobia and learning difficulties. As such, children with externalising disorders may exhibit symptoms of depression in ways that are not picked up by these questionnaires. In addition, the internal validity of these measures is likely to be greater for children with internalising disorders than externalising disorders. Nevertheless, as children with externalising disorders did exhibit symptoms of depression, the findings also support research that suggests that children with features of masked depression do exhibit overt depressive features and also report depressive symptoms when asked (Carlson & Cantwell, 1980a; Carlson & Cantwell, 1980b).

In terms of the link between self-esteem and depression and internalising and externalising disorders, it is possible that different factors may contribute to the level of association in the two groups. For example, Lewinsohn's behavioural theory (Lewinsohn et al., 1990) states that depression is maintained by a lack of response-contingent positive reinforcement because, when depressed, people may lack the social skills required to elicit rewarding interactions with others.

It is well documented that children with externalising behaviours such as conduct disorder and ADHD are likely to perform poorly at school. This poor performance is often attributable to learning difficulties, cognitive deficits, such as poor problem solving skills (Kazdin, 1995) and a lack of understanding in social situations (Spivack & Shure, 1982).

Thus, academic failure, social-skills deficits, and difficult to manage behaviours may result in these children experiencing fewer rewarding interpersonal interactions, and fewer response-contingent positive reinforcement from peers, teachers and significant others. However, the arousal theory of conduct disorder also suggests that these children may be less responsive to the effects of positive or negative reinforcement (Raine, 1988). It is possible therefore, that children with externalising disorders may be less affected by a lack of response contingent reinforcements than children with internalising problems and that in these children, self-esteem and depression may be associated differently. In addition, given that externalisers are likely to present with symptoms of masked depression, these symptoms are less likely to correlate with measures of self-esteem.

Moreover, it may be that children with externalising disorders are less aware of, or less able to admit to, thoughts and beliefs related to low self-esteem, as to do so might cause them to feel vulnerable.

Children with internalising disorders may experience low self-esteem because of factors such as a temperamental vulnerability to respond to situations with timidity and inhibition, negative feelings of self-worth and negative belief in self-efficacy (Kaslow and Rehm, 1991). The link between low self-esteem and depression in this case may be better explained by the stress-diathesis model (Gotlib & Hammen, 1992), which suggests that someone with an increased genetic vulnerability may, under the necessary stressful conditions, be at risk for developing a particular psychological disorder.

In addition, Learned helplessness theory (Seligman, 1975; Abramson, Seligman and Teasdale 1978; Abramson, Metalsky & Alloy, 1989) and Beck's cognitive theory of depression (Beck, 1967; Beck, Rush, Shaw and Emery, 1979; Beck, 1983) can be used to explain the maintenance of depression in both groups of children and this may be related to their experiences of life at home and at school.

For example, perceived academic failure or difficulty with school-work may result in an attributional bias leading to a belief that past and future failures are the result of stable, internal and global factors associated with the individual. Psychologically, this may impact on the child's behaviour to the extent that in potentially aversive situations they may give up trying, with subsequent failure confirming their initial beliefs that events are outside their control. Thus the child may hold a negative view of themselves, their world and the future and approach new situations in negative, ambiguous and mood-lowering ways.

However, it is possible that conduct disordered children are, in general, more robust than internalisers, with regard to their self-concept and overall feelings of self-worth. Some support for this finding comes from research suggesting that aggressive children reported higher levels of self-esteem when compared with children who were withdrawn or had comorbid disorders. It may be, therefore, that the relationship between conduct disorder and self-esteem is more complex than for children with internalising disorders.

That anxiety and depression are significantly correlated in both groups is also to be expected given that research indicates that the two disorders often co-occur. Once again, however, the association between the two measures was stronger for the internalising than the externalising group. Research suggests that the association between externalising behaviours and anxiety disorders is less clear than between externalising disorders and depression. For example, Zoccolillo (1992), found that depression, more than anxiety, co-existed with conduct disorder. It is therefore less surprising that the strength of the association between the two measures is weaker for this group of children.

Locus of control (Rotter, 1966), derived from Social Learning Theory, attempts to explain how human behaviour is contingent upon an individual's perception of their control over external reinforcements. An external locus of control, for example, has been shown to be related to maladjustment, low academic achievement, poor physical health and functioning (Furnham and Steele, 1993).

Someone with a predominantly internal locus of control, which is thought to be related to greater levels of psychological well-being, will tend to believe that reinforcements are a consequence of either some action on their part, or of some relatively enduring personal characteristic. As such, they are likely to believe that they have control over reinforcements. An individual with a predominantly external locus of control is likely to believe that reinforcements are not within their control and are determined more by the situation itself, by the actions of others or by fate, luck or chance. As a result, they may feel that they have little or no control over reinforcements (Rotter, 1966).

In this sample, 6 (26 per cent) children gained scores suggesting that they had a predominantly external locus of control. While Locus of Control for the whole sample correlated significantly with scores on the CDI, RCMAS and CFSEI, when the sample was collapsed into two groups a significant correlation was found for internalisers only. This result suggests that an external locus of control was associated with lower levels of self-esteem in children with internalising but not externalising disorders. Why this should be is not clear. It is possible that, as mentioned previously, there is a more complex relationship between depression, self-esteem and externalising disorders than between depression, self-esteem and internalising disorders. In addition, it is also likely that overall these measures are more sensitive to the presentations of distress as exhibited by children with internalising rather than externalising disorders.

The theory of Learned Helplessness (Seligman, 1975; Abramson, Seligman and Teasdale 1978; Abramson, Metalsky & Alloy, 1989) may also be important in explaining this result, as children with internalising disorders who gained high externalising scores on locus of control and low scores on self-esteem may be prone to a 'depressogenic' attributional style. These children may believe that previous events in their lives were uncontrollable and that future events will also be outside their control. Kaslow et al's (1988) findings that a clinical sample of depressed children had a more depressive attributional style than non-depressed children supports this theory. Further research would be necessary to test this hypothesis.

It should also be noted that the Locus of Control Questionnaire is recommended for use with children of 9-years and above. Therefore, because there is a significant tendency for externalising scores to fall with age, this may account for the initial difference between groups. When 8-year-olds were excluded from the correlational analysis, the association between locus of control and self-esteem was no longer significant.

Despite the significant association between Locus of Control and Self-esteem for children with internalising disorders it is interesting that no significant relationship was found between Locus of Control and the measure of depression. This finding, although unexpected, may simply be due to an artefact of testing or chance, or due to the small sample size.

With regard to the Independent t-tests, no significant differences were found between the two group means on the individual measures. This result is supported by research, which suggests that children with externalising disorders often present with depression, anxiety, and low self-esteem (Ryan et al., 1987; Strauss et al., 1988; Bernstein, 1991; Kolvin, Berney and Bhate, 1984). The finding is discussed further in the following section where features of comorbidity are addressed.

4.2   Hypothesis 2

Hypothesis 2 stated that children with externalising disorders would obtain elevated scores on measures of depression and anxiety. The question of whether conduct disorders and emotional disorders can coexist has been a subject of much controversy and interest (Zoccolillo, 1992). Some researchers have proposed that there is a negative association between emotional disorders and conduct disorders and that the presence of antisocial behaviour in a child precludes the presence of an internalising disorder (Pferrer and Plutchik, 1989). Others, in contrast, have noted a high rate of co-occurrence of these disorders (Kovacs et al., 1988; Marriage et al., 1986).

As outlined in the Introduction, research in both clinical and community settings, suggests that a significant portion of depressed or anxious children and adolescents suffer from multiple psychiatric disorders (Bernstein & Brochardt, 1991; Fleming & Offord, 1990; Kashani et al., 1991). Harrington et al (1990) argue that the majority of children who meet criteria for depressive disorder are also given some other psychiatric diagnosis by the professionals involved in their care. In fact, it seems that internalising disorders co-exist together with externalising disorders at rates which are often higher than chance (Caron & Rutter, 1991).

Depression, more than anxiety, has been found to co-exist with conduct disorder (Zoccolillo, 1992). In a general review of the literature, Zoccolillo (1992) concludes that for both boys and girls, increasing severity of antisocial behaviour is associated with an increasing risk for an emotional disorder. Capaldi (1992) suggests that conduct disorder may be a precursor to depression in some children. However, other research indicates that conduct disorder may be a concomitant disorder rather than a precursor to depression. For example, a review by Angold and Costello (1993) suggests that a much higher proportion of depressed youths have oppositional defiant disorder/conduct disorder compared with youths with these disorders who qualify for depression. In addition, as Zoccolillo's review suggests, high rates of comorbid depression with conduct disorder is important because the joint presence of these disorders appears to increase the risk for serious outcomes such as substance abuse (Buydens-Branchey et al., 1989) and suicide (Shaffer, 1974; Shaffi et al., 1985). A better understanding of the relationship between the two disorders therefore will help us to prevent these serious and life-threatening outcomes. Nevertheless, Harrington et al (1991) found that children with conduct disorder and depression were much less likely to be depressed when they became adults than children with depression alone.

In this study, 5 (45 per cent) children with an externalising disorder obtained scores indicating that they may be experiencing significant symptoms of depression. This compares with 4 (40 per cent) children with an internalising disorder. It is interesting that there is little difference between the two groups and that in fact the numbers are slightly higher for the conduct-disordered group.

Kovacs, Gatsonis, Paulauskas, & Richards (1988) indicated that depression in children with conduct disorder did not differ in terms of symptoms or course compared with children without conduct disorder, supports these findings. Their research also indicated that conduct disorder appears to develop mostly as a complication of the depression, because the onset in most cases occurred after the depression. Accordingly, any random sample of depressed children will contain a large number who are developing conduct disorders.

With regard to anxiety, 4 (36 per cent) children with an externalising disorder obtained scores 1 standard deviation above the mean, indicating significant levels of anxiety. This figure compares with 3 (30 per cent) children presenting with an internalising disorder. Once again the figure, though comparable, is slightly higher for the externalising group.

A growing body of evidence suggests that the interplay of conduct disorders and anxiety is important and intricate. For example, in prepubertal children early research indicated that children with anxiety disorders who did not have a conduct disorder were at a reduced risk for developing antisocial behaviours in adolescence (Loeber et al 2000). More recently, however, research suggests that conduct disorders and anxiety disorders are comorbid at substantially higher than chance rates during childhood and adolescence (Loeber and Keenan, 1994; Zoccolillo, 1992). Anxiety appears to be a moderating factor for ADHD and conduct disorder. Research suggests that for some cases, when anxiety co-occurs with ADHD, children may exhibit less impulsivity, less off-task behaviour, and have fewer co-diagnoses of conduct disorder (Pliszka, 1989; 1992; Newcorn, Sharma, Matier, Hall, & Halperin, 1992). In addition, similar moderating effects have been found for conduct disorders (Graham & Rutter, 1973). Thus it appears that with both ADHD and conduct disorder, a co-diagnosis of anxiety may indicate a more positive prognostic outcome.

In adolescence, however, a different picture emerges, as research suggests that comorbid conduct disorder and anxiety may exacerbate externalising symptomatology (Loeber et al., 1994; Kashani et al., 1991).

These findings suggest that in middle-childhood, while anxiety disorders on their own may be a protective factor in terms of developing future antisocial behaviour, adolescents who do develop conduct disorder are at an increased risk for comorbid anxiety and future psychopathology.

4.2.1   Comorbid Depression, anxiety and externalising disorders

The results of the correlational analysis demonstrated that measures of depression and anxiety were significantly positively correlated. With regard to externalising disorders and comorbid depression and anxiety the results of the correlational analysis indicated that higher scores on the CDI were associated with higher scores on the RCMAS. In the externalising group, 3 (27 per cent) children obtained scores that indicated significant levels of comorbid anxiety and depression as measured by the CDI and RCMAS. This was also the case for children in the internalising group. Given the high levels of comorbid anxiety and depression in these children it is important that any assessment of children with externalising disorders also includes a thorough assessment of anxiety, depression and self-esteem.

The results partially support the hypothesis that children with externalising disorders will also present with comorbid anxiety and depression. It is of interest that mean levels of anxiety and depression were similar in both groups. This suggests that internalising symptoms are as common in children with externalising disorders as they are in children with internalising disorders.

4.3   Hypothesis 3

Hypothesis 3 sought to determine whether levels of stress, as measured by the Parenting Stress Index, were greater in parents of children with externalising disorders than internalising disorders. The Parenting Stress Index offers some guidance, indicating that scores at or above the 90th percentile indicate clinically significant levels of stress.

Results of the independent t-test suggest that the parents of children with externalising disorders experienced significantly higher levels of stress than did the parents of children referred with internalising disorders.

Fifteen (65 per cent) of the parents who completed the questionnaires in both groups had scores above the 90th percentile. Of these, 10 (67 per cent) were parents of children with externalising disorders and 4 (27 per cent) were parents of children with internalising disorders. One child had a somatic complaint. Six (26 per cent) parents obtained scores within the normal range (5 internalisers and 1 externaliser).

The findings clearly point to significant differences between the two groups. As previously reported, research suggests that salient characteristics of a child's behaviour, parental characteristics and situational variables all contribute to a parent's experience of stress (Abidin, 1995).

Herbert (1987) found that children who are hyperactive or demonstrate high intensities of emotional expression pose management problems for adults and that these types of complaints are among the most frequent when children are referred to Child and Family Mental Health Services. It is also important to recognise that links have been made between the more 'difficult' attributes of a child's temperament and incidents of abuse and deviance in the parents (Gil, 1970). Such findings suggest that the clinician should be particularly cognizant to signs of possible abuse or potential risks for abuse within the families of children with conduct disorders.

Using the PSI, Kazdin (1990) found that mothers of children with antisocial behavioural disorders tended to end treatment prematurely and report higher levels of stress than families who completed treatment. In addition, these mothers were more likely to perceive their children as being less adaptable, less acceptable and more moody. Depression in the mothers was also evident, as were attachment difficulties.

This finding has implications for treating children with behavioural problems and their families because it suggests that clinicians should be particularly aware that engagement in therapy is crucial if it is to be completed and successful. It is all the more crucial because of the legacy that such children take with them into adulthood.

In support of Kazdin's (1990) research, Wolkind and de Salis (1982) found that mothers of difficult children suffered from prolonged mental health problems such as depression. If mothers of difficult children are vulnerable to depression and psychological difficulties, then this has implications both for their ability to parent their child effectively and for their ability to engage in treatment. As such it is important that clinicians are aware of the impact that disruptive behavioural disorders can have on the parents of these children and be attentive to signs of psychopathology in the parents.

Moreover, in relation to depression in the mothers of these children, family studies, suggest that the younger the age of onset of parental depression, the greater the risk for psychopathology in the child (Grigoroiu-Serbanescu, Christodorescu, Magureanu, Jipescu, Totoescu, Marinescu, Ardlelean & Popa, 1991). If this is the case, then it is important to determine whether there is a vulnerability to depression in the family or whether depression in the mother is due to other stressors, which may be child related or otherwise.

Further t-tests were carried out to test for differences on the PSI sub-scales between the two groups. The results indicated that there were significant differences between internalising and externalising disorders on the Parent-Child Dysfunctional Interaction (P-CDI) and Difficult Child (DF) subscales but not on the Parental Distress or Defensive Responding subscale.

High scores on the P-CDI indicate that the child does not meet the parent's expectations and that interactions with the child are not reinforcing to the parent. In this group, 13 parents (9 externalisers, 3 internalisers and 1 somatic) gained scores above the 95th percentile. It has been suggested that high scores such as these indicate that the parent-child bond is either threatened or has never been adequately established and that the child may be at risk for abuse in the form of neglect, rejection or physical abuse (MacInnis, 1984; Mash & Johnston, 1983b, Mash et al., 1983).

Given this prediction, the high levels of parent-child dysfunctional interaction are worrying. Once again it is important that clinicians are aware of the potential for possible abuse in families with high scores on this subscale.

Bowlby (1988) stated that insecure attachment in infancy might predispose an infant to react adversely to later stressful experiences and to become depressed. If this is the case then it is possible that insecure attachment between mother and child, as explained by higher scores on the P-CDI, may be associated with symptoms of depression in their referred offspring. Similarly, if the mother's own experience of attachment and being parented was poor this will influence their ability to form lasting and secure bonds with their own children.

The DC subscale focuses on the basic behavioural characteristics of children that make their management either easy or difficult. These characteristics are often rooted in the child's temperament but also include learned patterns of disruptive behaviour (Breen & Barkley, 1998; Goldberg et al., 1990; Johnson et al., 1984; Webster-Stratton, 1988).

Parents of these children are likely to have difficulty managing their behaviour in terms of setting limits and gaining the child's cooperation. In this study 14 parents gained very high scores on the Difficult Child rating (12 externalisers and 2 internalisers). In relation to this, defiance in children is frequently cited as an "immediate antecedent" of parental physical abuse (Wolfe, 1987). As mentioned, the PSI offers guidance in terms of the risk of abuse and which children are most likely to be subject to abuse.

Finally, as research suggests that in early to middle-childhood, parental attitudes and parenting style are particularly important in influencing a child's self-esteem (Coleman, 2001), a correlational analysis sought to test the association between the two. Results indicated significant correlations for children with internalising disorders but not for children with externalising disorders on the three subscales of the PSI and the Parental self-esteem subscale of the Culture Free Self-Esteem Inventory. Once again, these findings suggest that the relationship between self-esteem and externalising disorder in children is complex and not easily unravelled. If these difficult to manage children are, as Abidin postulates, poorly attached, then they may be less affected by and less responsive to their parents' reactions to them. In addition, as the arousal theory suggests, if children with conduct disorders are less susceptible to the impact of positive reinforcement then they may be less affected by their parents' reinforcement of prosocial behaviours. Similarly, children with externalising disorders may also derive some reinforcement from engaging in antisocial and difficult behaviours and it is possible that by engaging in these behaviours they are in some way boosting their self-esteem. Whether this is due to a need to feel in control, a need for attention or some other psychological factor is open to debate. A study by Slaby & Guerra (1988) supports this view, finding that in a sample of adolescent offenders, many held the belief that aggression increased self-esteem. Finally, as previously discussed, children with externalising disorders may be more psychologically robust and therefore less vulnerable to the impact of their parents' negative attitudes.

4.3.1 The contribution of familial factors

The results of these analyses may be explained by a number of factors. Firstly, as described previously, the family is the primary context for the socialisation of children, and as such family-based factors have been identified as contributing to and maintaining disruptive behaviour patterns in children (Bandura and Walters, 1959; Patterson, Kazdin, 1996). Parental deviance, parental rejection and coerciveness, lack of supervision and discipline and marital conflict and divorce are all associated with conduct disorders in children (see Hetherington, Law, & O'Connor, 1993).

Mann & MacKenzie (1996) found that marital conflict contributed to oppositional behaviour in children, and Rutter & Quinton (1984) found high rates of divorce were associated with the presence of conduct disorder. In this sample, of the 11 children with an externalising disorder, 6 had parents who were married and 5 were living with a single or divorced parent. The figure for children with internalising disorders is similar. Six parents were married, 2 were separated, 1 was divorced and 1 was a single parent.

Because there are few observed differences between the two groups in this respect, it is hard to draw any conclusions. However, it is likely that internalising difficulties in children are also related to marital conflict, parental divorce and separation.

Parenting style is also thought to make an important contribution to behaviour problems in children. Patterson et al (1992) suggested that coercive patterns of interaction between the parent and child might be partly responsible for antisocial behaviour in children. This pattern of interaction may lead to the child having subsequent difficulties with peers and teachers as they develop an aggressive style of relating to others and is likely to be stressful for both parent and child. It is unfortunate that due to the nature of this research it was not possible to test whether these factors might be contributing to childrens' and parents' difficulties. However, future research, which is longitudinal in nature, would be able to take these factors into consideration.

The finding that parents of children with externalising disorders experience greater levels of stress might also be explained at a structural level. Research suggests that families with children with disruptive behaviour problems tend to be more disorganised than other families. Communication patterns are indirect, lacking in empathy and confusing and family rules, roles and routines may be unclear. Moreover, these families may lack problem-solving skills and may be less emotionally engaged than other families (Carr, 1999). Again, the nature of this research did not allow for the testing of these factors, however, it is hoped that once these families are engaged in therapy these features will be further explored. Given these factors, the findings that parents of children with externalising disorders experience significant levels of stress is not surprising. However, it is important to consider environmental factors such as social deprivation, and the contribution of related stressors on these families, such as lack of social supports. These will all contribute to the predisposing, precipitating and maintaining factors cited previously.

Similarly, it is possible that the overtly difficult behaviours of children with externalising disorders creates more public embarrassment and more stressful demands on the parent and these factors are reflected overall by the higher scores for this group, on the Parenting Stress Index. Certainly research indicates that having a child who presents with repeated and excessive disruptive behaviour problems is both stressful and distressing (Brody & Forehand, 1986; Webster-Stratton & Hammond, 1988). In particular, the tendency for these behaviours to occur without warning and in any place necessitated vigilance on behalf of the parents at all times.

The results of this analysis indicate that the parents of children with externalising disorders experience significantly greater levels of stress than do the parents of children with internalising disorders. It appears that dysfunctional patterns of interaction between parent and child, and 'difficult' characteristics of the externalising child, accounts for some of the differences noted.

The findings support the third hypothesis that parents of children with externalising disorders will experience significantly greater levels of stress than will parents of children with internalising disorders.

4.4   Other findings

A predictable relationship was found between children with high and low self-esteem and levels of depression. The 9 children who obtained high or very high scores on the CFSEI also obtained CDI scores at one standard deviation below the norm, indicating an absence of depressive symptomatology. In this group, 5 children presented with internalising symptoms, 3 with externalising symptoms and 1 with a somatic complaint. Conversely, the 5 children who gained low to very low scores on the CFSEI (3 internalisers, 2 externalisers) obtained CDI scores above the cut-off said to indicate significant levels of depression. This finding offers further support for the view that depression and low self-esteem are linked. Nevertheless, it should be noted that 4 children with intermediate levels of self-esteem also gained scores placing them at or above the CDI cut-off suggested by Fundudis et al (1991) to indicate possible depressive symptomatology. Thus it seems that the presence of depressive symptomatology as measured on the CDI may not always be associated with low self-esteem as measured by the CFSEI. It is also interesting to note that 3, of the 4 children who obtained intermediate self-esteem scores and high scores on the CDI, presented with externalising disorders, again offering support for a more complex relationship between externalising disorders, depression and self-esteem. In addition, this finding offers support for the earlier assertion that masked symptoms of depression in children with externalising behaviours may not be associated with measures of self-esteem.

It has been suggested that 25 per cent of children referred to mental health services present with major depression (Carr, 1999). In this clinical sample, between 30 to 61 per cent of the participants obtained scores above the various cut-off points recommended as guidelines for identifying possible cases of depression in children, as measured by the CDI.

It cannot be implied from these results that between 30 to 61 per cent of these children were suffering from a depressive episode as the data is taken from measures of self-report and not from diagnosis following a thorough clinical assessment. Nevertheless, the results do indicate a trend towards low mood in this sample.

Correlations were calculated to assess the association between measures of anxiety and depression. These showed a positive association between scores on the Children's Depression Inventory and the Revised Children's Manifest Anxiety Scale. This finding is in keeping with previous research suggesting that depression and anxiety often coexist in clinical samples (Strauss et al, 1988).

No differentiation between anxiety disorders was attempted in this study, but as previously indicated, if anxiety is a factor in children of this age group it is likely to relate to fears of separation from a significant other or to a fear of a specific stimulus. Interestingly, no children in this sample were expressly referred with a simple phobia or separation anxiety.

4.5   Methodological Considerations
A number of methodological problems should be considered in relation to this study and these will be discussed below.

4.5.1   Sample Size

The numbers in this sample were small, mainly because of time constraints, and because of the small numbers of children referred during the timescale who met the inclusion criteria for age. In addition, a number of parents who chose to respond by post did not return the questionnaires.

Because of the small numbers referred during this time period, the sample only included 3 girls. As a result, it was not possible to determine whether gender differences existed on any of the measures used. This would be a consideration for future research in this area.

While the results of the study largely uphold the second and third hypotheses it is possible that different results might have been obtained if a larger sample size had been used. As such, it would have been preferable if the number of subjects in the study had been substantially higher. In addition, it would have been useful to include a control group for comparison.

4.5.2   Diagnosis

The design of this study did not allow for a formal assessment and diagnosis of the child. Instead, the decision about whether a child presented with an internalising or externalising disorder was determined by information provided in the referral letter.

However, that there were significant differences between the two groups on the expected measures provides reassurance that the children were appropriately assigned to the two groups.

4.5.3   Parental factors

It is important to note that it was not always possible to administer the measures to children without their parents being present. In such cases, the child may have been responding in a more socially acceptable manner, particularly with regard to questions relating to the parent-child relationship.

Nevertheless, it was evident from the researchers own observations, that for the most part, the children participating in the study tended to consider the questions with care and gave what appeared to be open and honest answers.

For the majority of the children in this sample measures were administered at home with the researcher. However, a small number of participants returned the questionnaires by post. As such, it was not possible to tell how much parental input was provided. However, from the researcher's observations, on the few occasions when parents chose to involve themselves in answering questions, it was most often to tell the child to answer them honestly.

Finally, in the majority of cases, the PSI/SF respondent was the mother. This was usually because the father (where relevant) was not at home during the researcher's visit. However, future research may wish to use reports from both parents.

4.5.4 Comorbidity

Research into comorbidity over the past 10 years has established that as a construct, it is unquestionably "real". As such it has been seen as an opportunity to gain a better understanding of the development of psychopathology (Angold, et al., 1999). Nevertheless, a number of views have been posited to explain the high rate of comorbidity between depression and anxiety, ranging from the existence of a true association, to factors operating which may mimic a true association.

Anxiety and depression are thought to have similar emotional features; however, they are differentiated by their dominant emotion, in anxiety this is fear, in depression, sadness (Blumberg & Izzard, 1986). Previous research has noted prevalence rates of comorbid affective and anxiety diagnoses in children and adolescents ranging from 33 per cent to 44 per cent (Keller et al., 1992; Kovacs et al., 1984, 1989, 1994; McCauley et al., 1993). Because of the considerable overlap between these two diagnoses, a number of researchers have attempted to explain their coexistence (Achenbach, 1991a; Caron & Rutter, 1991; Verhulst & van der Ende, 1993).

Most often anxiety and depression are regarded as distinct disorders, each having a specific aetiology. However, other explanations have also been considered.

For example, it has been suggested that the disorders may be the result of a common aetiology or shared risk factor, such as underlying genetic or environmental factors. There may be a causal association, thus, the presence of one disorder may be a risk factor for the development of another, or, it is possible that two distinct disorders, each related to one aetiological factor, will co-occur. However, the associations between anxiety and depression may also result from artificial comorbidity as a result of treatment-seeking factors, such as referral bias. For example, children from problem families tend to be overrepresented in mental health services. Berkson's bias, a statistical phenomena, suggests that children with multiple disorders are more likely to be referred than children with one condition because the probability of referral is related to the combined probabilities of referral for each condition (Verhulst & van der Ende, 1993).

Other research suggests that comorbidity may result from artefacts in assessment procedures. For example, if an instrument for the assessment of anxiety contains similar items to those that make up an instrument for measuring depression, artificial association between anxiety and depression is the result.

More recently, 'negative affectivity' has been used to refer to a general mood state characterised by both anxiety and depression (King & Ollendick, 1991). Brady & Kendall (1992) suggest that it is necessary to assess the multiple components of anxiety and depression to understand their relationship. This is beyond the realms of the present study. However, what is clear is that anxiety and depression are linked, whether this is due to the artefacts of assessment, shared aetiological factors, causal links or the fact that there is no clear distinction between the two disorders in the first place, is open to debate.

4.5.5   Reliability of self-report measures

Although self-reports measures are a useful tool for identifying problem areas and a useful aid to diagnosis, reaching a reliable diagnosis generally requires that a thorough clinical assessment is carried out. In addition, in this study it is also pertinent to report that children were allocated to internalising or externalising groups depending on the information provided in the referral letter and not as a result of any diagnostic assessment.

Nevertheless, previous research does suggest that child self-report may be preferable to the report of parents, finding that agreement between parent and child associated with specific symptoms is often only moderate (Barrett, Berney, Bhate, Famuyiwa, Fundudis, Kolvin & Tyrer, 1991). For example, Rutter et al found that parents tended to underestimate their child's level of distress compared with the child's own account (Rutter et al., 1970). In addition, it is known that by school-age, children are reliable and valid informants of their own current mental state. They are therefore more able than their parents to provide an account of their depressive symptoms (Barrett, et al., 1991).

This finding makes sense, as these symptoms are internal to the child and may therefore pass undetected by other people, including parents and teachers.

4.5.6   Measures

A brief mention should be made about the measures used. Because the design of the study necessitated that the measures were completed in one sitting, children were required to complete four questionnaires over the space of 30 to 45 minutes. As a result, the younger children and those with attentional difficulties may have had difficulty concentrating on the questions for a sustained period. If this was the case, then we might expect their answers to some of the questions to be less valid than if the measures had been administered in two or more sittings.

In addition, some of the questions on the Locus of Control Questionnaire were long and wordy and may have been beyond the comprehension of the younger age group.

This is relevant, as the scale is recommended for use with 9 year-olds and above and may therefore not have been appropriate for use with the 8-year-olds in this sample.

4.5.7 Correlational design

One methodological difficulty with this study is that whilst correlational design is useful in examining possible associations between variables, it cannot predict the direction of a relationship and as such cannot directly assess the nature of theoretical questions. This difficulty can be overcome through the use of regression analysis. However, due to the small numbers in this study it is likely that no significant results would have been found.

4.5.8 Future research

Many mental health problems are believed to be precipitated by transitional 'life events' in the family life cycle (Carter and McGoldrick, 1989) such as birth or death of a family member, marriage or separation, external trauma, onset of a severe illness or phases of psychological transformation such as onset of adolescence or leaving home (Reder and Lucey, 2000). As a result future research in this area might also include a measure of life events in children and parents. Also, given that psychopathology has been found to run in families, a measure of past and present parental psychological functioning, including attachment experience, might also be important.

In addition, it would be interesting to include information about a child's developmental history, given the research which indicates that boys who become depressed during their middle school years are more likely to have a history of developmental problems (Block et al., 1991).

The present study addressed issues of comorbidity and psychological factors associated with internalising and externalising disorders.

However, given that somatic complaints are also common referral problems to Child and Family clinics, future research could include this as a comparison group. Unfortunately, due to the small numbers of children in this sample referred with a somatic complaint further investigation was not feasible.

In addition, future research should endeavour to expand the catchment area, address gender differences and include a measure of social class. In this sample, social class differences appeared to be evident between the two groups. For the most part, children referred with externalising disorders came from more socially deprived backgrounds than did those with internalising disorders. However, this observation was based on home visits carried out by the researcher rather than on any definitive measure.

Further research should also include a measure of externalising and internalising behaviours such as the Child Behaviour Checklist (CBCL; Achenbach, 1978; Achenbach and Edelbrock, 1979). The CBCL for parents and teachers comprised 138 items and assesses behavioural problems and social competence in children. In addition, it includes an anxious depressed syndrome scale. It has been found to be a reliable and valid measure for assessing externalising and internalising symptoms in children.

Although considered for use in this study, the CBCL was not used as it was felt to be too lengthy to ask parents to complete. Any future research would do well to include this measure in the methodology.

Finally, due to time constraints a thorough assessment of the child's difficulties was not possible and instead measures of self-report were taken. Future research would be longitudinal in nature so that the psychological functioning of children could be followed-up over time and likely contributing social, familial, and school factors could be established.

5   CONCLUSION

The study sought to investigate a number of psychological factors related to childhood emotional and behavioural disorders, and levels of comorbidity, in a sample of 23 children referred to a Child and Family Mental Health Clinic. In addition, a measure of parental stress was taken to determine whether differences were evident between the parents of children with internalising and externalising disorders.

The results supports previous research, which indicates that children who present to clinics with emotional and behavioural problems, are likely to experience similar levels of anxiety, depression and low self-esteem. In addition, children with externalising problems are at risk for developing depression and anxiety disorders, which may serve to exacerbate their difficulties in the longer term.

Measures of parental stress indicate that parents of children with externalising disorders report significantly higher levels of stress than do parents of children with internalising disorders. While these differences are likely to be attributable to characteristics of the externalising child's temperament they may also be related to factors such as parenting style, patterns of communication and interaction and social circumstances.

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APPENDICES

I.   **Patient Information Sheet**

II.   **Consent Form**
        Child
        Parent

III.   **Measures**
        CDI
        RCMAS
        CFSEI
        Locus of Control
        Parenting Stress Index

IV.   **Results**

        Histograms

        CDI
               Total CDI
               Negative Mood
               Interpersonal Problems
               Ineffectiveness
               Anhedonia
               Negative Self-esteem

        RCMAS
               Total Anxiety
               Physiological Anxiety
               Worry/Oversensitivity
               Social Concerns
               Lie Scale

        PSI
               Total Parenting Stress
               Defensive Responding
               Parental Distress
               Parent-child Dysfunctional Interaction
               Difficult Child

        Locus of Control

        CFSEI
               Total Self-esteem
               General Self-esteem
               Social Self-esteem

Academic Self-esteem
Parental Self-esteem

Table 3-10 - Kolmogorov-Smirnov test for Normality

CORRELATIONS

APPENDIX I

PATIENT INFORMATION FORM

29 May 2001

Child and Family Mental Health Service
at Royal Hospital for Sick Children
3 Rillbank Terrace
EDINBURGH EH9 1LL

TEL: 0131-536-0520
FAX: 0131 536 0545

PATIENT INFORMATION SHEET

Study Title

An investigation into depression, anxiety, self-esteem and locus of control in children referred to the North Edinburgh Team of the Child and Family Mental Health Service.

You and your child are being invited to take part in a research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with friends, relatives and your GP if you wish. Please ask me if there is anything that is not clear or if you would like more information. Take your time to decide whether or not you wish to take part.

Thank you for reading this.

(1) What is the purpose of the study?
The study is being carried out to look at the occurrence of depression, anxiety, and low self-esteem in children referred to the Child and Family Mental Health Service. The expression of Psychological difficulties in children can vary considerably. The aim of the study therefore, is to assess the type, range and severity of childhood problems referred to the Service so that this information can be used to improve the service we provide.

(2) Why have I been asked to take part?
You and your child have been asked to take part in the study because you have been referred to the North Edinburgh Team of the Child and Family Mental Health Service at the Royal Hospital for Sick Children. All children referred to the Service between January 2001 and July 2001 who are aged between 8 and 11 years of age have been asked to take part.

Participation in this research is entirely voluntary and it is up to you to decide whether or not to take part. If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form. You will be free to withdraw at any time and without giving a reason. This will not affect the standard of care you receive.

(3) What will I have to do?

If you are willing to take part in the study you and your child will be asked to complete a number of questionnaires, which relate to your current levels of stress and your child's behaviours, mood, anxiety levels and feelings about themselves. The researcher may, with your agreement, visit you at home or if you would prefer, you will be given a stamp-addressed envelope in which to return the questionnaires. The questionnaires will take up to 50 minutes to complete.

(4) Will my participation in this study be kept confidential?

All information that is collected about you during the course of the research will be kept strictly confidential. Any information about you, which leaves the hospital, will have your name and address removed so that you or your child cannot be recognised.

(5) What will happen to the results of the research?

The collective results will be analysed and included in the write-up of the research. Neither you nor your child will be identifiable in any way in any of the research.

(6) Who is organising the research?

The research is being carried out by Clare Jackson, Clinical Psychologist in Training as part of the requirements of the University of Edinburgh's Clinical Psychology Training Course. Brenda Renz, Consultant Clinical Psychologist, at the Royal Hospital for Sick Children will supervise this research. The study has been reviewed by the Lothian Psychiatry and Clinical Psychology Research Ethics Committee.

(7) Local Independent Advisor

If required, you can also contact Professor Mick Power, independent advisor for the study, at the following address:

Professor Mick Power, Course Director
Department of Psychiatry
Kennedy Tower, Royal Edinburgh Hospital
Morningside Park
Edinburgh EH10 5HF   0131 537 6578

Thank you for taking the time to read this and for your consideration.

CONSENT FORM

CHILD

PARENT

CONSENT FORM FOR CHILD

Title of Project: An investigation into the existence of depression, anxiety, low self-esteem and external locus of control in children referred to the Child and Family Mental Health Services, Royal Hospital for Sick Children, Edinburgh.

Name of Researcher: Clare Jackson

Please tick box

1. I have read and understand the information sheet for the above study and have had the opportunity to ask questions. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at anytime, without giving any reason, without my medical care or rights being affected. ☐

3. I agree to take part in the above study. ☐

Name of Child	Date	Signature

LOTHIAN
PRIMARY CARE
——— NHS TRUST ———

Child and Adolescent Mental Health Service

02 May 2001

Child and Family Mental Health Service
at Royal Hospital for Sick Children
3 Rillbank Terrace
EDINBURGH EH9 1LL

TEL: 0131-536-0520
FAX: 0131 536 0545

PARENT(S)CONSENT FORM

Title of Project: An investigation into the existence of depression, anxiety, low self-esteem and external locus of control in children referred to the Child and Family Mental Health Services, Royal Hospital for Sick Children, Edinburgh.

Name of Researcher: Clare Jackson

Please initial box

1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at anytime, without giving any reason, without my medical care or rights being affected. ☐

3. I agree to take part in the above study. ☐

_____   _____   _____
Name of Parent   Date   Signature

APPENDIX   III

<u>**MEASURES**</u>

CHILDREN'S DEPRESSION INVENTORY

REVISED CHILDREN'S MANIFEST ANXIETY SCALE

CULTURE FREE SELF-ESTEEM INVENTORY

LOCUS OF CONTROL SCALE

PARENTING STRESS INDEX/SHORT FORM

CDI

Item 1
- ☐ I am sad once in a while.
- ☐ I am sad many times.
- ☐ I am sad all the time.

Item 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 O.K.

Item 3
- ☐ I do most things O.K.
- ☐ I do many things wrong.
- ☐ I do everything wrong.

Item 4
- ☐ I have fun in many things.
- ☐ I have fun in some things.
- ☐ Nothing is fun at all.

Item 5
- ☐ I am bad all the time.
- ☐ I am bad many times.
- ☐ I am bad once in a while.

Item 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.

Item 7
- ☐ I hate myself.
- ☐ I do not like myself.
- ☐ I like myself.

Item 8
- ☐ All bad things are my fault.
- ☐ Many bad things are my fault.
- ☐ Bad things are not usually my fault.

Item 9
- ☐ I do not think about killing myself.
- ☐ I think about killing myself but I would not do it.
- ☐ I want to kill myself.

Item 10
- ☐ I feel like crying every day.
- ☐ I feel like crying many days.
- ☐ I feel like crying once in a while.

Item 11
- ☐ Things bother me all the time.
- ☐ Things bother me many times.
- ☐ Things bother me once in a while.

Item 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.

Item 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.

Item 14
- ☐ I look O.K.
- ☐ There are some bad things about my looks.
- ☐ I look ugly.

Remember to fill out the other side

CDI

Remember, describe how you have been in the past two weeks.....

Item 15
- ☐ I have to push myself all the time to do my schoolwork.
- ☐ I have to push myself many times to do my schoolwork.
- ☐ Doing schoolwork is not a big problem.

Item 16
- ☐ I have trouble sleeping every night.
- ☐ I have trouble sleeping many nights.
- ☐ I sleep pretty well.

Item 17
- ☐ I am tired once in a while.
- ☐ I am tired many days.
- ☐ I am tired all the time.

Item 18
- ☐ Most days I do not feel like eating.
- ☐ Many days I do not feel like eating.
- ☐ I eat pretty well.

Item 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.

Item 20
- ☐ I do not feel alone.
- ☐ I feel alone many times.
- ☐ I feel alone all the time.

Item 21
- ☐ I never have fun at school.
- ☐ I have fun at school only once in a while.
- ☐ I have fun at school many times.

Item 22
- ☐ I have plenty of friends.
- ☐ I have some friends but I wish I had more.
- ☐ I do not have any friends.

Item 23
- ☐ My schoolwork is alright.
- ☐ My schoolwork is not as good as before.
- ☐ I do very badly in subjects I used to be good in

Item 24
- ☐ I can never be as good as other kids.
- ☐ I can be as good as other kids if I want to.
- ☐ I am just as good as other kids.

Item 25
- ☐ Nobody really loves me.
- ☐ I am not sure if anybody loves me.
- ☐ I am sure that somebody loves me.

Item 26
- ☐ I usually do what I am told.
- ☐ I do not do what I am told most times.
- ☐ I never do what I am told.

Item 27
- ☐ I get along with people.
- ☐ I get into fights many times.
- ☐ I get into fights all the time.

MHS

Remember to fill out the other side

"WHAT I THINK AND FEEL"
(RCMAS)

Cecil R. Reynolds, Ph.D. and Bert O. Richmond, Ed.D.

Published by

WPS WESTERN PSYCHOLOGICAL SERVICES
Publishers and Distributors
12031 Wilshire Boulevard
Los Angeles, California 90025-1251
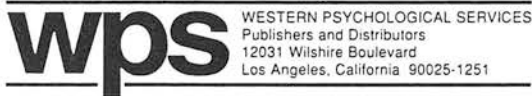
Name: _____ Today's Date: _____

Age: _____ Sex (circle one): Girl Boy Grade: _____

School: _____ Teacher's Name (Optional): _____

DIRECTIONS

Here are some sentences that tell how some people think and feel about themselves. Read each sentence carefully. Circle the word "Yes" if you think it is true about you. Circle the word "No" if you think it is *not* true about you. Answer every question even if some are hard to decide. Do not circle both "Yes" and "No" for the same sentence.

There are no right or wrong answers. Only you can tell us how you think and feel about yourself. Remember, after you read each sentence, ask yourself "Is it true about me?" If it is, circle "Yes." If it is not, circle "No."

	Raw Score	Percentile	*T*-Score or Scaled Score
Total:	_____	_____	_____
I:	_____	_____	_____
II:	_____	_____	_____
III:	_____	_____	_____
L:	_____	_____	_____

1. I have trouble making up my mind	Yes	No
2. I get nervous when things do not go the right way for me	Yes	No
3. Others seem to do things easier than I can........................	Yes	No
4. I like everyone I know	Yes	No
5. Often I have trouble getting my breath	Yes	No
6. I worry a lot of the time	Yes	No
7. I am afraid of a lot of things	Yes	No
8. I am always kind..	Yes	No
9. I get mad easily	Yes	No
10. I worry about what my parents will say to me	Yes	No
11. I feel that others do not like the way I do things	Yes	No
12. I always have good manners	Yes	No
13. It is hard for me to get to sleep at night	Yes	No
14. I worry about what other people think about me...................	Yes	No
15. I feel alone even when there are people with me	Yes	No
16. I am always good	Yes	No
17. Often I feel sick in my stomach	Yes	No
18. My feelings get hurt easily	Yes	No
19. My hands feel sweaty	Yes	No
20. I am always nice to everyone	Yes	No
21. I am tired a lot..	Yes	No
22. I worry about what is going to happen	Yes	No
23. Other people are happier than I...............................	Yes	No
24. I tell the truth every single time	Yes	No
25. I have bad dreams...	Yes	No
26. My feelings get hurt easily when I am fussed at	Yes	No
27. I feel someone will tell me I do things the wrong way	Yes	No
28. I never get angry	Yes	No
29. I wake up scared some of the time	Yes	No
30. I worry when I go to bed at night	Yes	No
31. It is hard for me to keep my mind on my schoolwork................	Yes	No
32. I never say things I shouldn't	Yes	No
33. I wiggle in my seat a lot......................................	Yes	No
34. I am nervous	Yes	No
35. A lot of people are against me	Yes	No
36. I never lie...	Yes	No
37. I often worry about something bad happening to me	Yes	No

CFSEI–2

Culture-Free Self-Esteem Inventories
Second Edition

FORM B

Name _____ Age _____ Date _____

School / Class _____ Date of Birth _____

Examiner _____ Total _____ G _____ S _____ A _____ P _____ L _____

Directions

Please mark each statement in the following way: If the statement describes how you usually feel, make a check mark (√) in the "yes" column. If the statement does not describe how you usually feel, make a check mark (√) in the "no" column. Check only one column (either yes or no) for each of the 30 statements. This is *not* a test, and there are no right or wrong answers.

		Yes	No
1.	I wish I were younger	☐	☐
2.	Boys and girls like to play with me	☐	☐
3.	I usually quit when my school work is too hard	☐	☐
4.	My parents never get angry at me	☐	☐
5.	I only have a few friends	☐	☐
6.	I have lots of fun with my parents	☐	☐
7.	I like being a boy / I like being a girl	☐	☐
8.	I am a failure at school	☐	☐
9.	My parents make me feel that I am not good enough	☐	☐
10.	I usually fail when I try to do important things	☐	☐
11.	I am happy most of the time	☐	☐
12.	I have never taken anything that did not belong to me	☐	☐
13.	I often feel ashamed of myself	☐	☐
14.	Most boys and girls play games better than I do	☐	☐
15.	I often feel that I am no good at all	☐	☐
16.	Most boys and girls are smarter than I am	☐	☐
17.	My parents dislike me because I am not good enough	☐	☐
18.	I like everyone I know	☐	☐
19.	I am as happy as most boys and girls	☐	☐
20.	Most boys and girls are better than I am	☐	☐
21.	I like to play with children younger than I am	☐	☐
22.	I often feel like quitting school	☐	☐
23.	I can do things as well as other boys and girls	☐	☐
24.	I would change many things about myself if I could	☐	☐
25.	There are many times when I would like to run away from home	☐	☐
26.	I never worry about anything	☐	☐
27.	I always tell the truth	☐	☐
28.	My teacher feels that I am not good enough	☐	☐
29.	My parents think I am a failure	☐	☐
30.	I worry a lot	☐	☐

LOCUS OF CONTROL SCALE FOR CHILDREN (LCSC)

NFER-NELSON
INFORMING YOUR DECISION

Name: _____   Date of birth: _____

Date completed: _____

We are trying to find out what young people think about certain things. We want you to answer the following questions about the way you feel. There are no right or wrong answers. Don't take too much time answering any one question, but do try to answer them all.

One of your concerns during the test may be, 'What should I do if I can answer both yes and no to a question?' It is not unusual for that to happen. If it does, think about whether your answer is just a little more one way than the other. For example, if you would assign 51 per cent to 'yes' and 49 per cent to 'no', mark the answer 'yes'. Try to pick one or the other response for each of the questions and do not leave any blanks.

Tick yes or no next to each item. Thank you.

1. Do you believe that most problems will solve themselves if you just leave them?　Yes　No

2. Do you believe that you can stop yourself from catching a cold?　Yes　No

3. Are some people just born lucky?　Yes　No

4. Most of the time do you feel that getting good marks at school means a great deal to you?　Yes　No

5. Are you often blamed for things that aren't your fault?　Yes　No

6. Do you believe that if somebody studies hard enough, he or she can pass any subject?　Yes　No

7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?　Yes　No

8. Do you feel that if things start out well in the morning, it is going to be a good day no matter what you do?　Yes　No

9. Do you feel that most of the time parents listen to what their children have to say?　Yes　No

10. Do you believe that wishing can make good things happen?　Yes　No

11. When you get punished, does it usually seem it is for no good reason at all?　Yes　No

12. Most of the time do you find it hard to change a friend's (mind) opinion?　Yes　No

13. Do you feel that cheering, more than luck, helps a team to win?　Yes　No

14. Do you feel that it is nearly impossible to change your parents' mind about anything?　Yes　No

15. Do you believe that your parents should allow you to make most of your own decisions?　Yes　No

16. Do you feel that when you do something wrong there is very little you can do to make it right?　Yes　No

17. Do you believe that most people are just born good at sports?　Yes　No

18. Are most of the other people your age stronger than you are?　Yes　No

Do you feel that one of the best ways to handle most problems is just not to think about them? **Yes** / **No**

Do you feel you have a lot of choice in deciding who your friends are? **Yes** / **No**

If you find a four-leaf clover, do you believe that it might bring you good luck? **Yes** / **No**

Do you often feel that whether you do your homework has much to do with what kind of marks you get? **Yes** / **No**

Do you feel that when someone your age decides to hit you, there is little you can do to stop him or her? **Yes** / **No**

Have you ever had a good luck charm? **Yes** / **No**

Do you believe that whether or not people like you depends on how you behave? **Yes** / **No**

Will your parents usually help you if you ask them to? **Yes** / **No**

Have you felt that when people were mean to you it was usually for no reason at all? **Yes** / **No**

Most of the time, do you feel that you can change what might happen tomorrow by what you do today? **Yes** / **No**

Do you believe that when bad things are going to happen they are going to happen no matter what you try to do to stop them? **Yes** / **No**

Do you think that people can get their own way if they just keep trying? **Yes** / **No**

Most of the time do you find it useless to try to get your own way at home? **Yes** / **No**

Do you feel that when good things happen they happen because of hard work? **Yes** / **No**

Do you feel that when somebody your age wants to be your enemy there is little that you can do to change matters? **Yes** / **No**

Do you feel that it is easy to get friends to do what you want them to do? **Yes** / **No**

Do you usually feel that you have little to say about what you eat at home? **Yes** / **No**

Do you feel that when someone doesn't like you there is little you can do about it? **Yes** / **No**

Do you usually feel that it is almost useless to try in school because most other children are cleverer? **Yes** / **No**

Are you the kind of person who believes that planning ahead makes things turn out better? **Yes** / **No**

Most of the time, do you feel that you have little to say about what your family decides to do? **Yes** / **No**

Do you feel it is better to be clever than to be lucky? **Yes** / **No**

PS⬛I Short Form

Instructions

This questionnaire contains 36 statements. Read each statement carefully. For each statement, please focus on the child you are most concerned about, and circle the response that best represents your opinion.

Circle the SA if you <u>strongly agree</u> with the statement.

Circle the A if you <u>agree</u> with the statement.

Circle the NS if you are <u>not sure</u>.

Circle the D if you <u>disagree</u> with the statement.

Circle the SD if you <u>strongly disagree</u> with the statement.

For example, if you sometimes enjoy going to the movies, you would circle A in response to the following statement:

I enjoy going to the movies.   SA Ⓐ NS D SD

While you may not find a response that exactly states your feelings, please circle the response that comes closest to describing how you feel. YOUR FIRST REACTION TO EACH QUESTION SHOULD BE YOUR ANSWER.

Circle only one response for each statement, and respond to all statements. **DO NOT ERASE!** If you need to change an answer, make an "X" through the incorrect answer and circle the correct response. For example:

I enjoy going to the movies.   SA A NS ⊗ ⃝SD

Before responding to the statements, write your name, gender, date of birth, ethnic group, marital status, child's name, child's gender, child's date of birth, and today's date in the spaces at the top of the questionnaire.

Name_____ Gender _____ Date of birth _____ Ethnic group _____ Marital status_____

Child's name_____ Child's gender_____ Child's date of birth _____ Today's date _____

| SA = Strongly Agree | A = Agree | NS = Not Sure | D = Disagree | SD = Strongly Disagree |

1. I often have the feeling that I cannot handle things very well.   SA A NS D SD
2. I find myself giving up more of my life to meet my children's needs than I ever expected.   SA A NS D SD
3. I feel trapped by my responsibilities as a parent.   SA A NS D SD
4. Since having this child, I have been unable to do new and different things.   SA A NS D SD
5. Since having a child, I feel that I am almost never able to do things that I like to do.   SA A NS D SD
6. I am unhappy with the last purchase of clothing I made for myself.   SA A NS D SD
7. There are quite a few things that bother me about my life.   SA A NS D SD
8. Having a child has caused more problems than I expected in my relationship with my spouse (male/female friend).   SA A NS D SD
9. I feel alone and without friends.   SA A NS D SD
10. When I go to a party, I usually expect not to enjoy myself.   SA A NS D SD
11. I am not as interested in people as I used to be.   SA A NS D SD
12. I don't enjoy things as I used to.   SA A NS D SD

13. My child rarely does things for me that make me feel good.   SA A NS D SD
14. Most times I feel that my child does not like me and does not want to be close to me.   SA A NS D SD
15. My child smiles at me much less than I expected.   SA A NS D SD
16. When I do things for my child, I get the feeling that my efforts are not appreciated very much.   SA A NS D SD
17. When playing, my child doesn't often giggle or laugh.   SA A NS D SD
18. My child doesn't seem to learn as quickly as most children.   SA A NS D SD
19. My child doesn't seem to smile as much as most children.   SA A NS D SD
20. My child is not able to do as much as I expected.   SA A NS D SD
21. It takes a long time and it is very hard for my child to get used to new things.   SA A NS D SD

For the next statement, choose your response from the choices "1" to "5" below.
22. I feel that I am:
    1. not very good at being a parent   1 2 3 4 5
    2. a person who has some trouble being a parent
    3. an average parent
    4. a better than average parent
    5. a very good parent

23. I expected to have closer and warmer feelings for my child than I do and this bothers me.   SA A NS D SD
24. Sometimes my child does things that bother me just to be mean.   SA A NS D SD

25. My child seems to cry or fuss more often than most children.   SA A NS D SD
26. My child generally wakes up in a bad mood.   SA A NS D SD
27. I feel that my child is very moody and easily upset.   SA A NS D SD
28. My child does a few things which bother me a great deal.   SA A NS D SD
29. My child reacts very strongly when something happens that my child doesn't like.   SA A NS D SD
30. My child gets upset easily over the smallest thing.   SA A NS D SD
31. My child's sleeping or eating schedule was much harder to establish than I expected.   SA A NS D SD

For the next statement, choose your response from the choices "1" to "5" below.
32. I have found that getting my child to do something or stop doing something is: 1 2 3 4 5
    1. much harder than I expected
    2. somewhat harder than I expected
    3. about as hard as I expected
    4. somewhat easier than I expected
    5. much easier than I expected

For the next statement, choose your response from the choices "10+" to "1-3."
33. Think carefully and count the number of things which your child does that bother you.   10+ 8-9 6-7 4-5 1-3
    For example: dawdles, refuses to listen, overactive, cries, interrupts, fights, whines, etc.
34. There are some things my child does that really bother me a lot.   SA A NS D SD
35. My child turned out to be more of a problem than I had expected.   SA A NS D SD
36. My child makes more demands on me than most children.   SA A NS D SD

APPENDIX   IV

RESULTS

HISTOGRAMS

CDI

Total CDI
Negative Mood
Interpersonal Problems
Ineffectiveness
Anhedonia
Negative Self-esteem

RCMAS

Total Anxiety
Physiological Anxiety
Worry/Oversensitivity
Social Concerns
Lie Scale

PSI

Total Parenting Stress
Defensive Responding
Parental Distress
Parent-child Dysfunctional Interaction
Difficult Child

Locus of Control

CFSEI

Total Self-esteem
General Self-esteem
Social Self-esteem
Academic Self-esteem
Parental Self-esteem

Kolmogorov-Smirnov Test
Table 3.10
Correlations
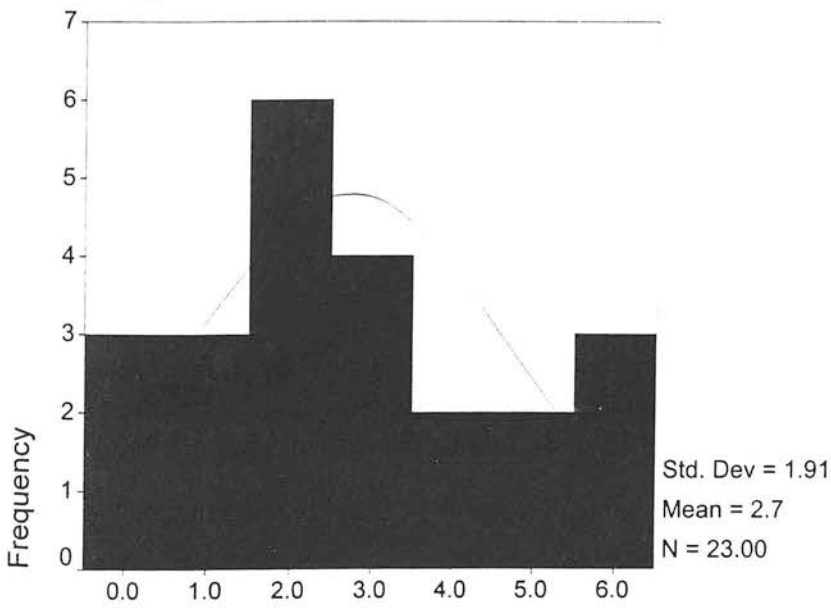Table 3.11
Table 3.12
Table 3.13
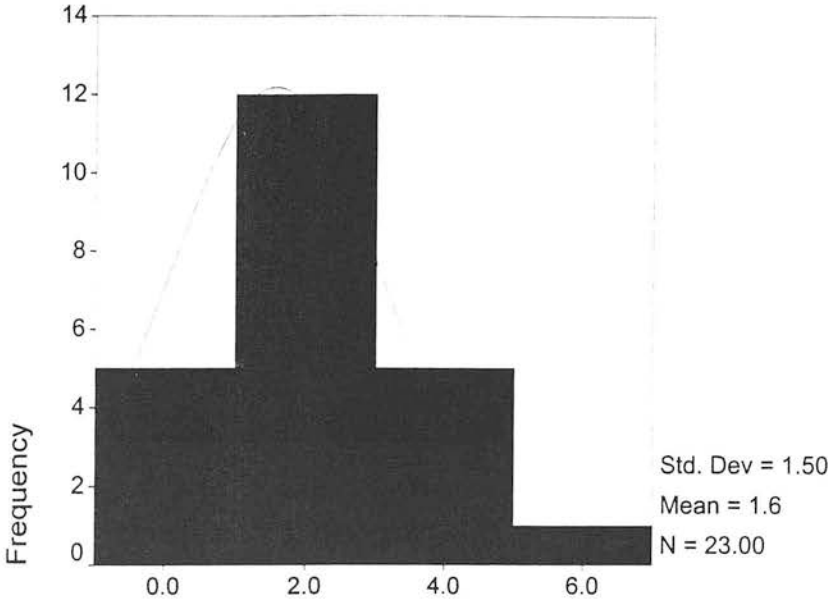Table 3.14
Table 3.15

Histogram

Total CDI
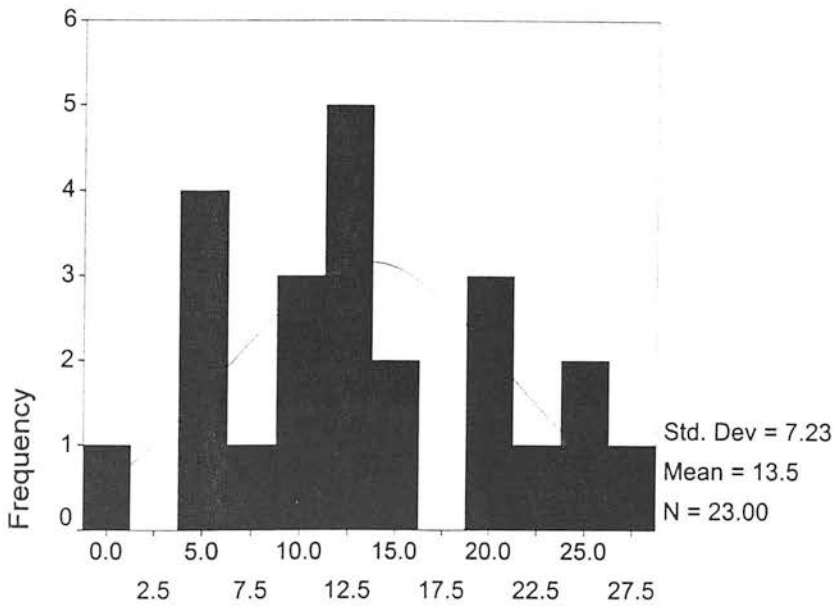
Std. Dev = 7.23
Mean = 13.5
N = 23.00

Total CDI

Negative Mood

Std. Dev = 1.91
Mean = 2.7
N = 23.00

Negative Mood

Interpersonal Problems

Std. Dev = 1.50
Mean = 1.6
N = 23.00

Interpersonal Problems

Ineffectiveness

Std. Dev = 1.88
Mean = 2.4
N = 23.00

Ineffectiveness

Anhedonia

Std. Dev = 2.39
Mean = 4.2
N = 23.00

Anhedonia

Negative Self Esteem

Std. Dev = 2.06
Mean = 2.6
N = 23.00
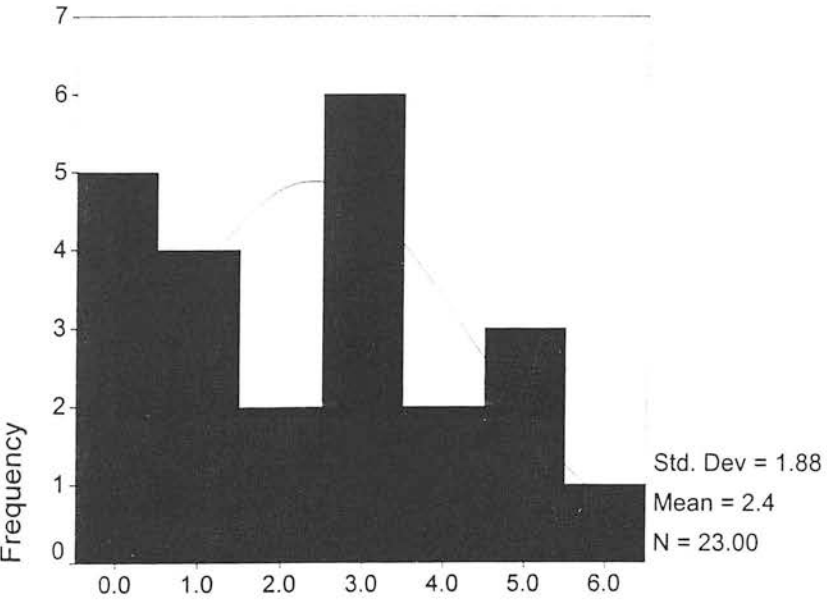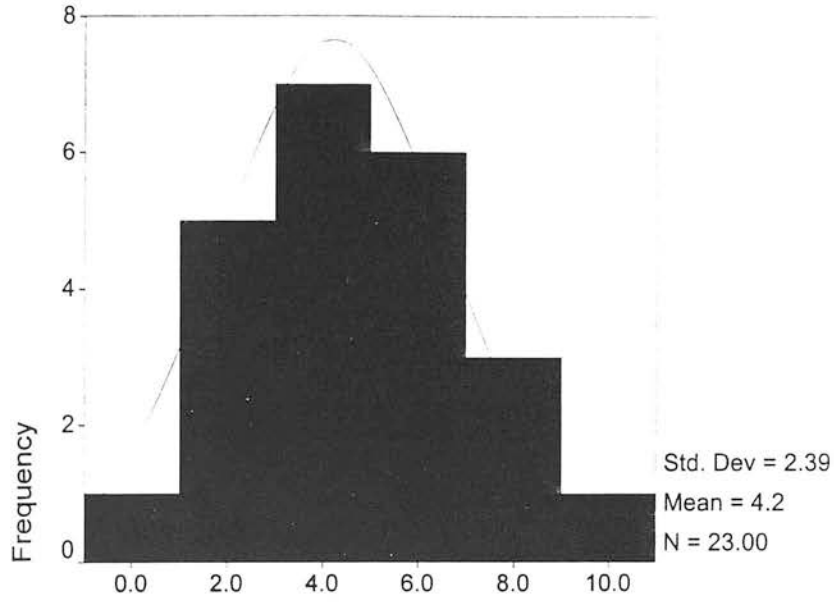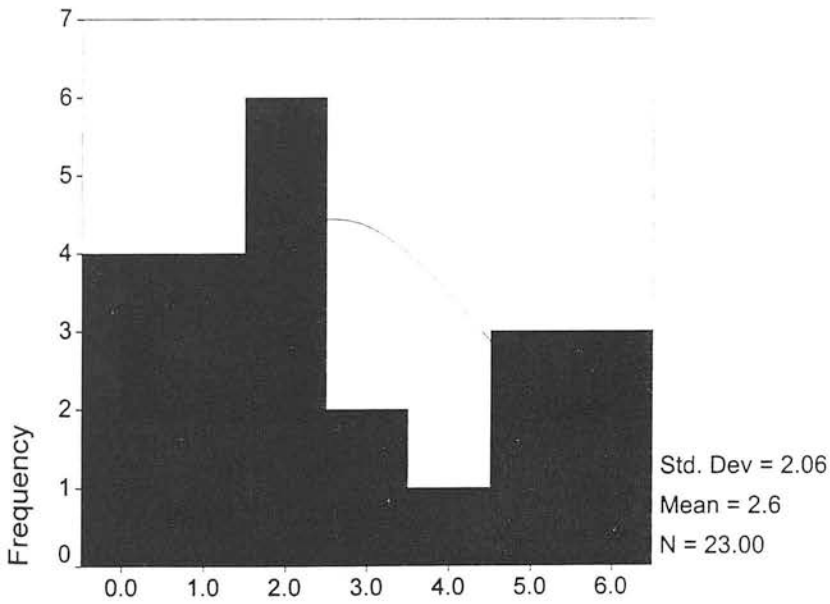
Negative Self Esteem

Total anxiety score

Std. Dev = 5.76
Mean = 13.7
N = 21.00
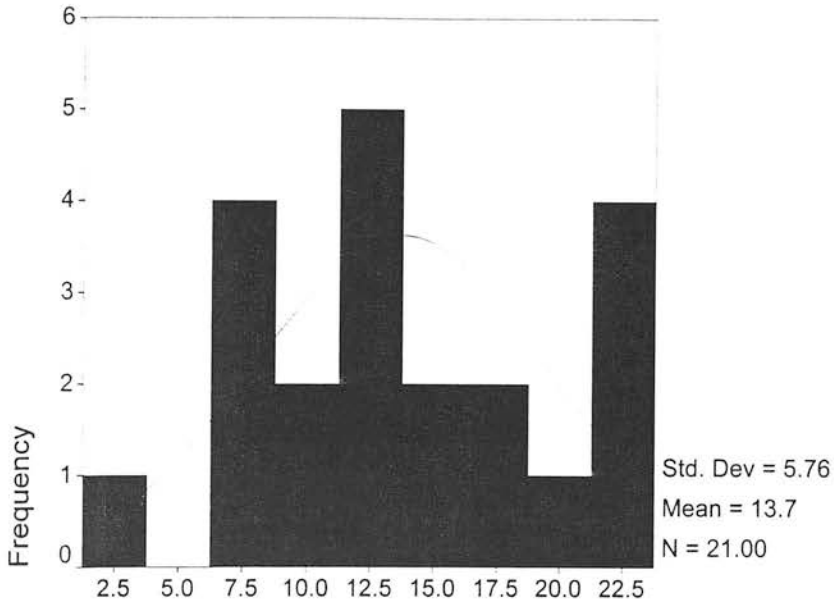
Total anxiety score

Physiological anxiety
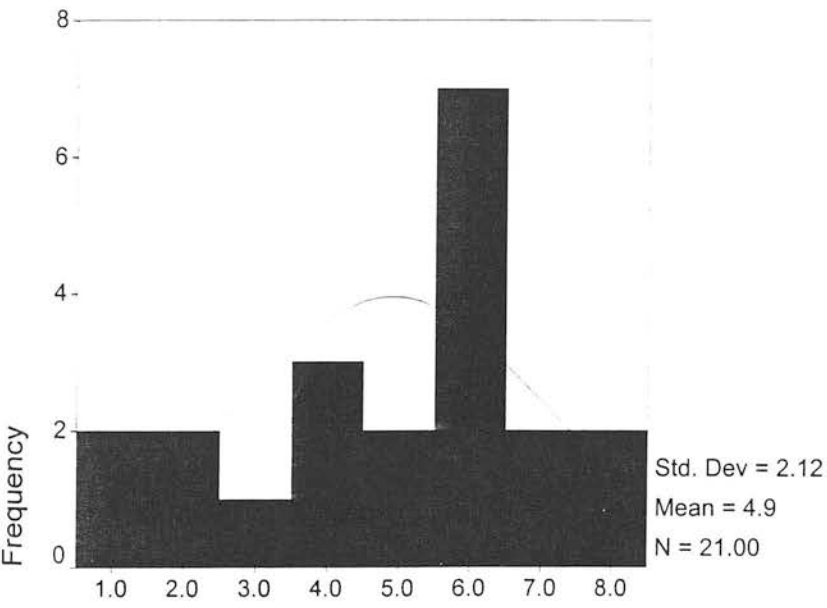
Std. Dev = 2.12
Mean = 4.9
N = 21.00

Physiological anxiety

Worry/Oversensitivity

Std. Dev = 3.33
Mean = 5.3
N = 21.00

Worry/Oversensitivity

Social concerns

Std. Dev = 1.99
Mean = 3.5
N = 21.00

Social concerns

Lie scale

Std. Dev = 2.61
Mean = 3.0
N = 21.00
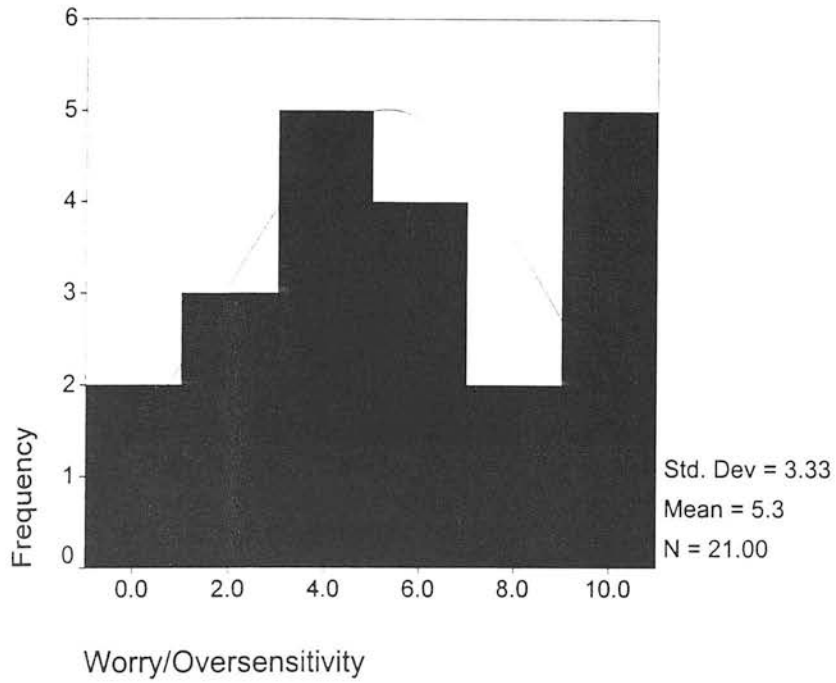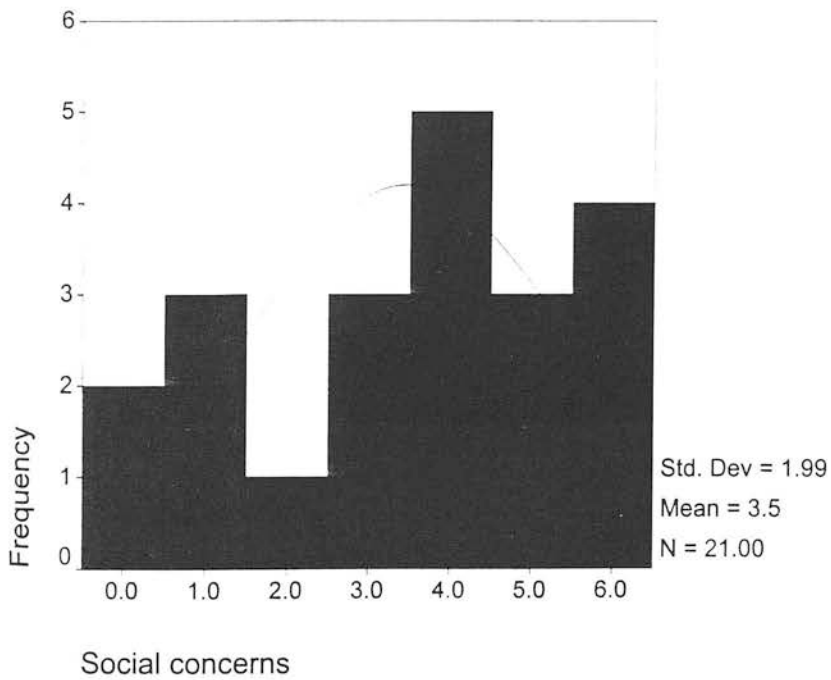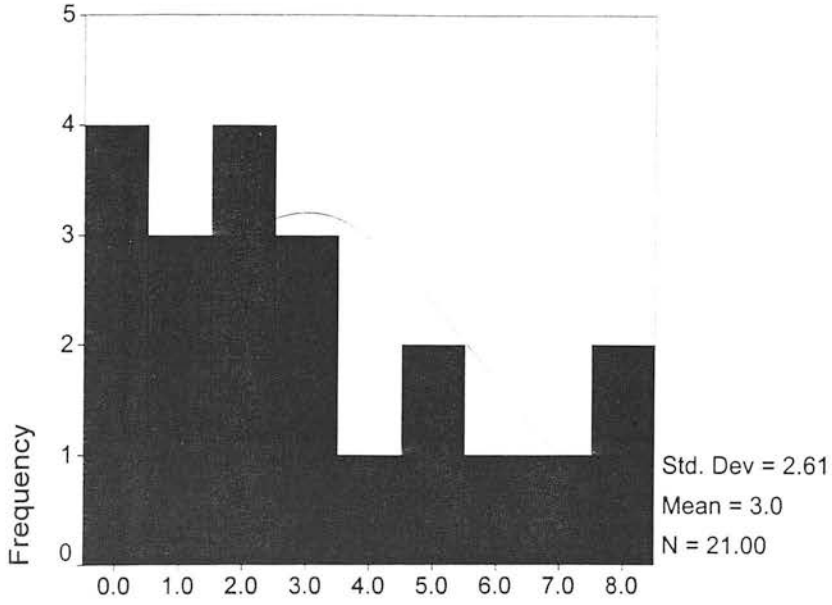
Lie scale

Total Parenting Stress
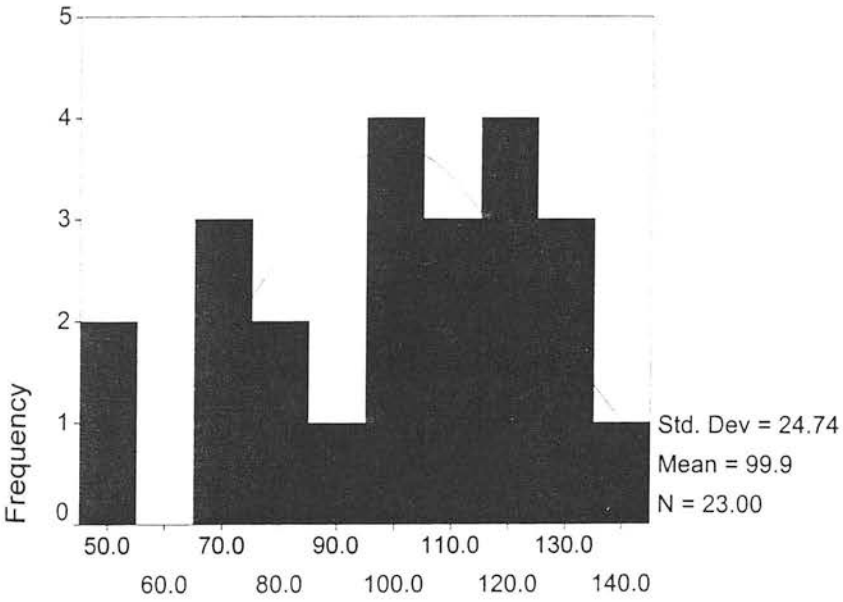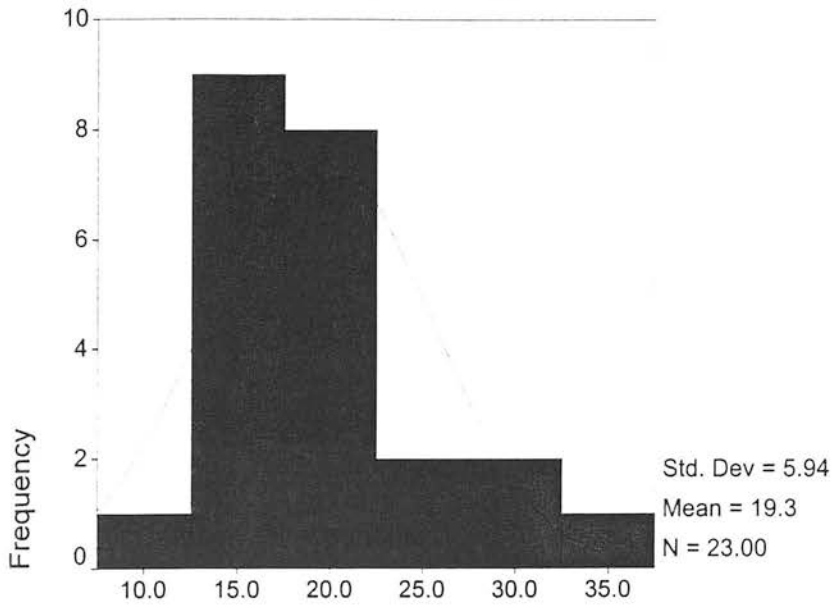
Std. Dev = 24.74
Mean = 99.9
N = 23.00

Total Parenting Stress

Defensive Responding

Std. Dev = 5.94
Mean = 19.3
N = 23.00

Defensive Responding

Parental Distress

Std. Dev = 9.59
Mean = 30.8
N = 23.00

Parental Distress

Parent-child Dysfunctional Interaction

Std. Dev = 9.70
Mean = 29.9
N = 23.00

Parent-child Dysfunctional Interaction

Difficult Child

Std. Dev = 11.36
Mean = 39.2
N = 23.00

Difficult Child

locus of control

Std. Dev = 4.22
Mean = 18.3
N = 23.00
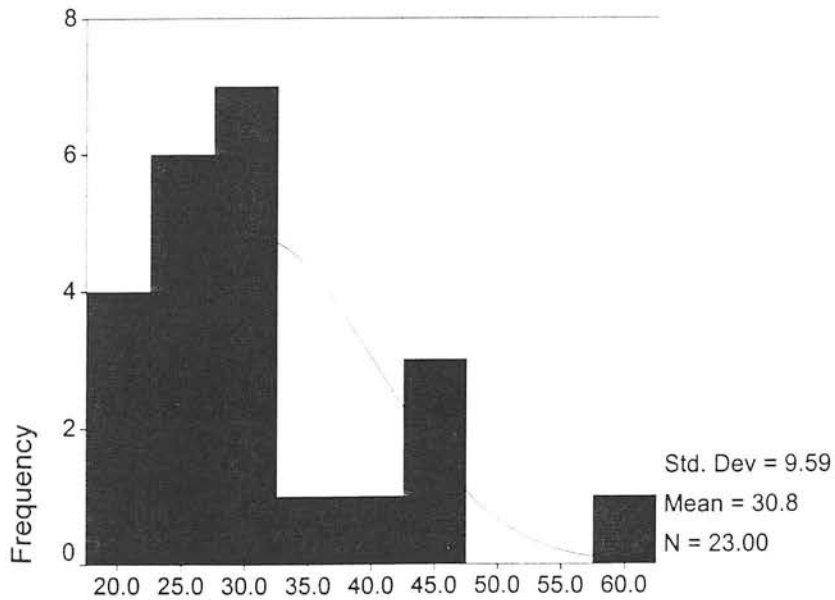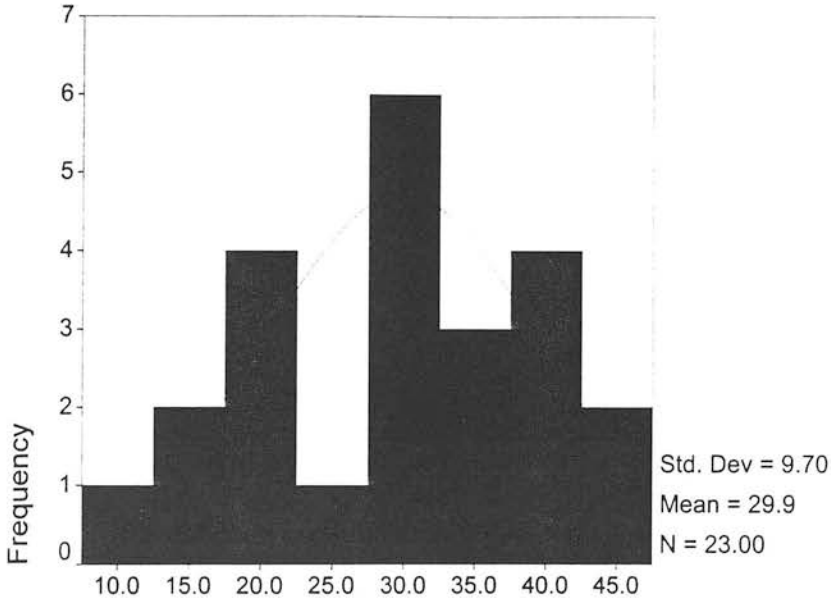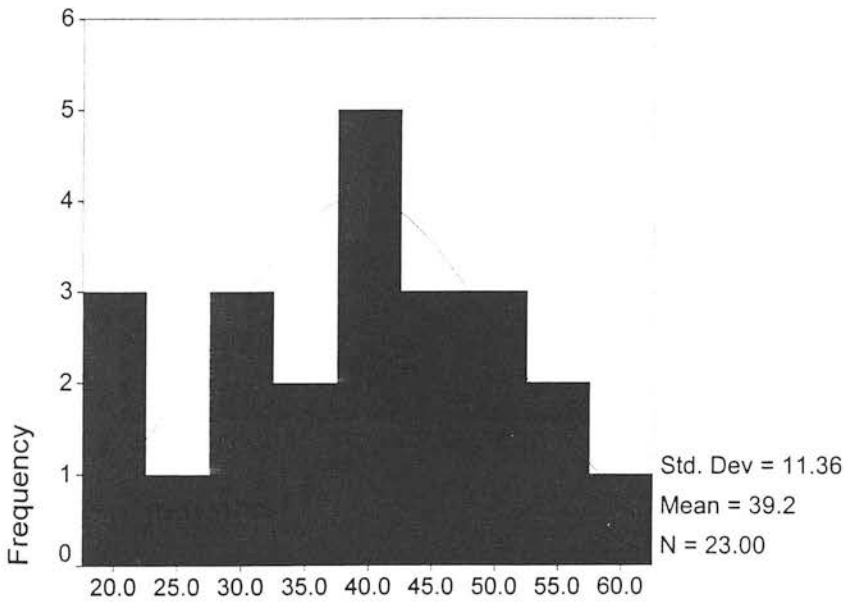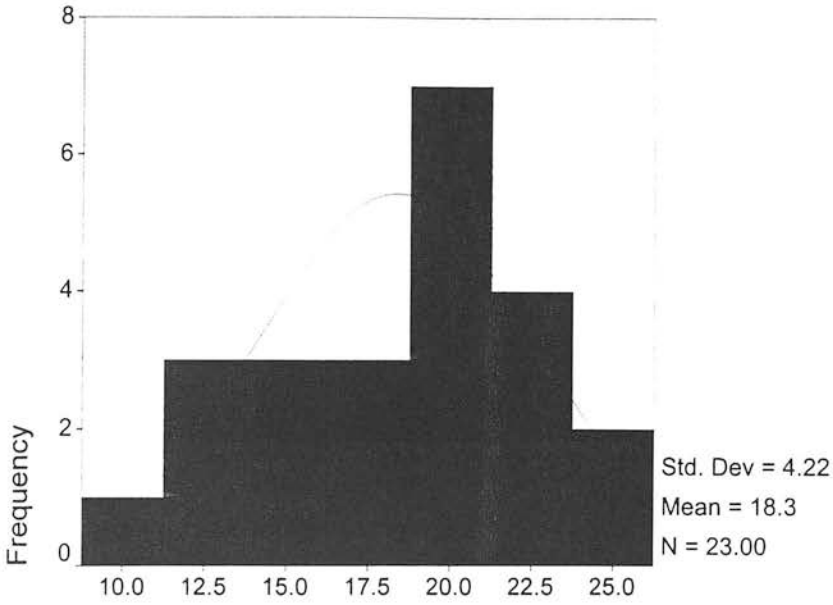
locus of control

total self esteem
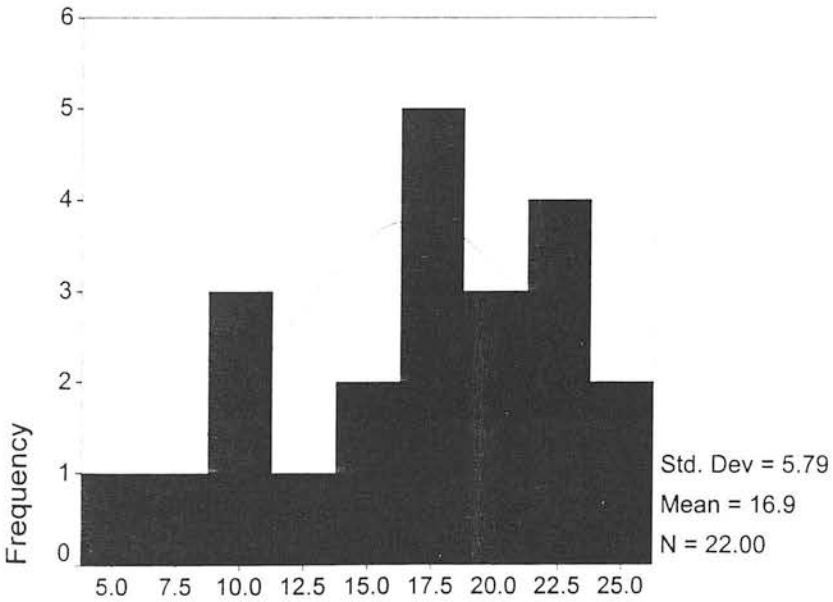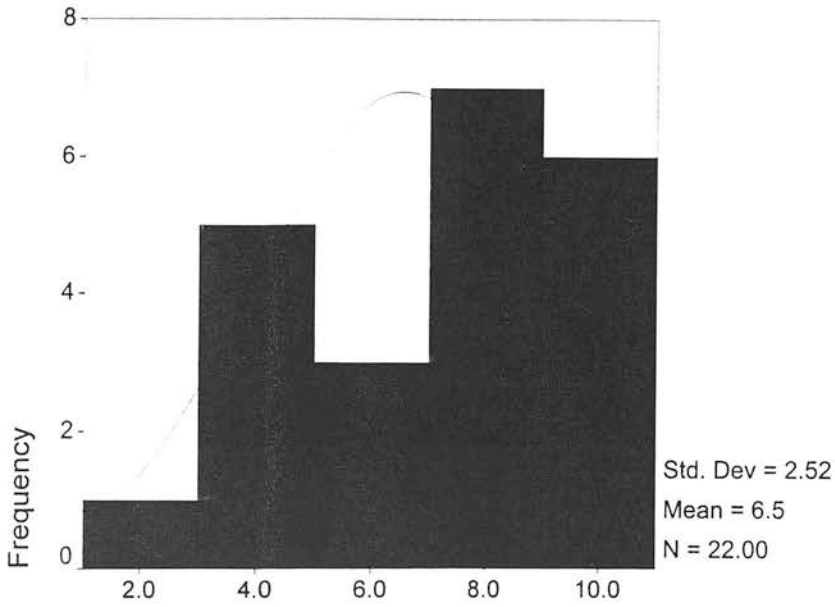
Std. Dev = 5.79
Mean = 16.9
N = 22.00

total self esteem

general self-esteem

Frequency

Std. Dev = 2.52
Mean = 6.5
N = 22.00

general self-esteem

social self-esteem

Frequency

Std. Dev = 1.37
Mean = 3.2
N = 22.00

social self-esteem

academic self-esteem

Std. Dev = 1.64
Mean = 2.9
N = 22.00

academic self-esteem

parental self-esteem

Std. Dev = 1.16
Mean = 4.3
N = 22.00
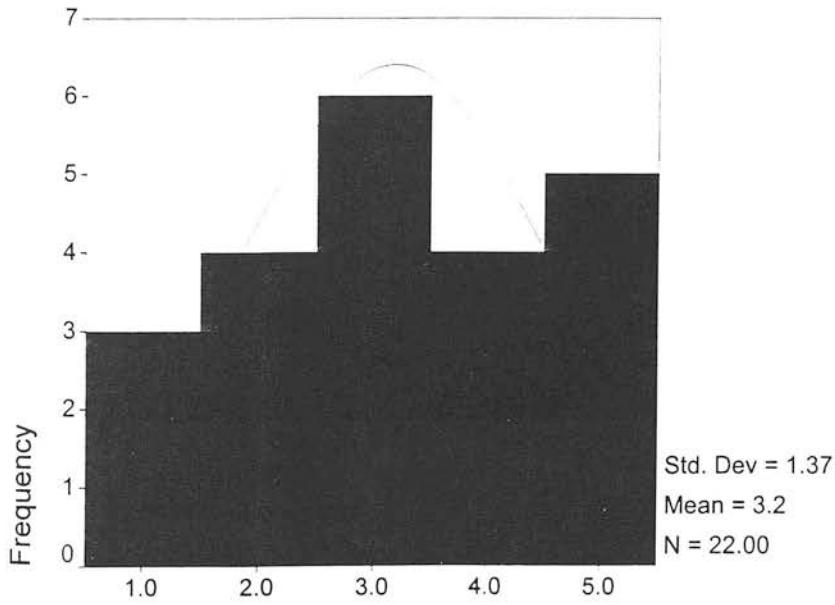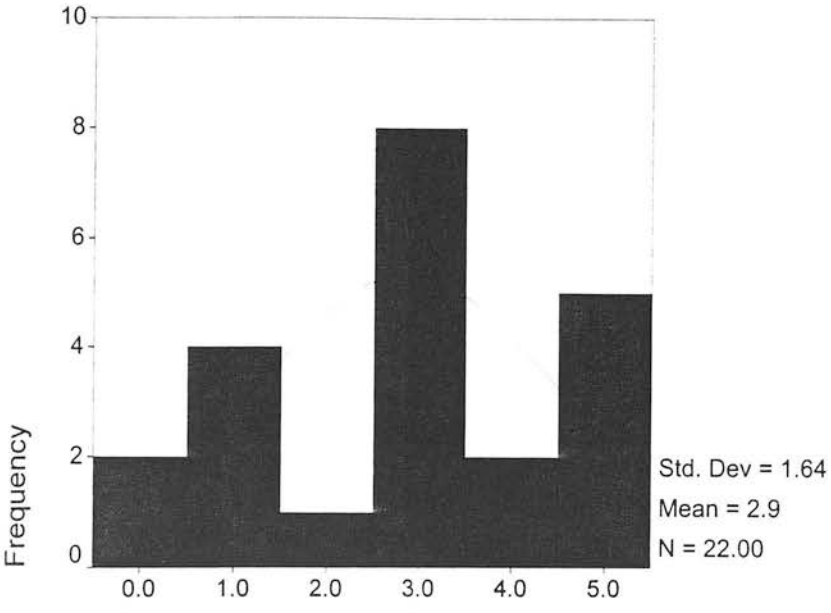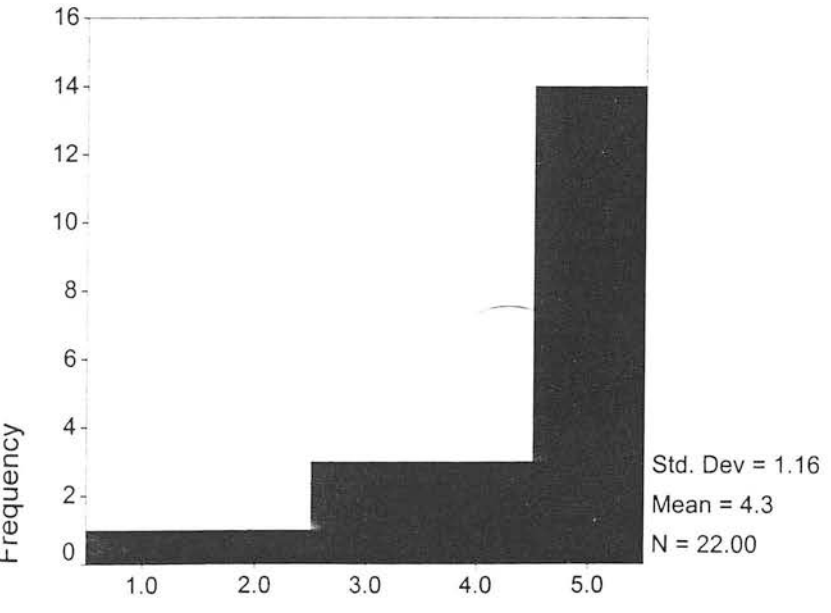
parental self-esteem

Table 3.10 - Test for Normality

Tests of Normality	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total CDI	.122	19	.200	.952	19	.449
Negative mood	.184	19	.090	.923	19	.159
Interpersonal problems	.288	19	.000**	.841	19	.010
Ineffectiveness	.174	19	.135	.897	19	.044
Anhedonia	.102	19	.200	.967	19	.693
Negative self-esteem	.166	19	.175	.894	19	.041
Total RCMAS	.166	19	.177	.915	19	.093
Physiological anxiety	.209	19	.029*	.922	19	.146
Worry/oversensitivity	.104	19	.200	.941	19	.338
Social concerns	.189	19	.071	.904	19	.059
Lie scale	.176	19	.124	.895	19	.042
Total PSI/SF	.140	19	.200	.961	19	.568
Defensive responding	.147	19	.019	.891	19	.036
Parental distress	.217	19	.200	.867	19	.012
Parent-child dysfunctional interaction	.114	19	.200	.961	19	.584
Difficult child	.115	19	.200	.955	19	.485
Locus of Control	.122	19	.200	.970	19	.740
Total CFSEI	.142	19	.200	.939	19	.318
General self-esteem	.191	19	.066	.945	19	.379
Social self-esteem	.159	19	.200	.888	19	.033
Academic self-esteem	.241	19	.005*	.906	19	.065
Parental self-esteem	.363	19	.000*	.687	19	.010
Lie scale	.302	19	.000	.812	19	.010

CORRELATIONS

- **CDI and RCMAS**
  Total CDI and RCMAS scores were significantly correlated at the 0.01 level (r=.788), suggesting that children who gained high scores on the CDI also obtained high scores on the RCMAS

- **CDI and Locus of Control**
  Total CDI score and Locus of Control were significantly correlated at the 0.05 level (r=.470). This finding suggests that children with higher scores on the CDI were also likely to gain high scores on the measure of locus of control, indicating that children with lower mood also had an external locus of control.

- **CDI and CFSEI**
  The total CDI and self-esteem scores were negatively correlated at the 0.01 level (r=.759). This result indicates that children with higher self-esteem obtained lower scores on the measure of depression.

- **RCMAS and Locus of Control**
  The total RCMAS score correlated significantly with Locus of Control at the 0.05 level (7=.470). This finding offers support for the view that children with an external locus of control may be anxious because of a belief that they have little control over events in their environment

- **RCMAS and CFSEI**
  The total RCMAS score was negatively correlated with the total CFSEI score at the 0.01 level (r=.646), suggesting that children with higher levels of anxiety were likely to obtain lower scores on this measure of self-esteem.

- **Parenting Stress and Locus of Control**
  Parenting stress was significantly correlated with Locus of Control at the 0.05 level (r=.434), suggesting that parents with higher levels of stress have children who obtain higher scores on this measure of locus of control.

- **CFSEI and Locus of Control**

  Self-esteem was negatively correlated with locus of control at the 0.05 significance level (r=-.426), suggesting a relationship between higher scores on measures of self-esteem and lower scores on the locus of control questionnaire.

CORRELATIONS

Table 3.11 – Internalising – CDI, RCMAS, CFSEI, Locus of Control & PSI

Table 3.12 – Externalising – CDI, RCMAS, CFSEI, Locus of Control & PSI

Table 3.13 – Total sample – CDI, RCMAS, CFSEI, Locus of Control & PSI

Table 3.14 – Internalising – PSI subscales and Parental Self-esteem

Table 3.15 – Externalising – PSI subscales and Parental Self-esteem

Table 3.11
Pearson Correlations – Internalising Disorders

		Total CDI	Total RCMAS	Total PSI	Locus of Control	Total CFSEI
Total CDI	Correlation	1.000	.747*	.558	.447*	-.905**
	Sig (2-tailed)	.	.021	.094	.195	.001
	N	10	9	10	10	9
Total RCMAS	Correlation	.747*	1.000	.223	.494	-.683
	Sig (2-tailed)	.021	.	.564	.177	.062
	N	9	9	9	9	8
Total PSI	Correlation	.558	.223	1.000	.285	-.473
	Sig (2-tailed)	.094	.564	.	.424	.198
	N	10	9	10	10	9
Locus of Control	Correlation	.447	494	.285	1.000	-.697*
	Sig (2-tailed)	.195	.177	.424	.	.037
	N	10	9	10	10	9
Total CFSEI	Correlation	-.905**	-.683	-.473	-.697*	1.000
	Sig (2-tailed)	.001	.062	.198	.037	.
	N	9	8	9	9	9

Table 3.12

Pearson Correlations – *Externalising Disorders*

		Total CDI	Total RCMAS	Total PSI	Locus of Control	Total CFSEI
Total CDI	Correlation	1.000	.692*	.390	.385	-.657*
	Sig (2-tailed)	.	.027	.236	.242	.028
	N	11	10	11	11	11
Total RCMAS	Correlation	.692*	1.000	.432	.102	-.588
	Sig (2-tailed)	.027	.	.213	.779	.074
	N	10	10	10	10	10
Total PSI	Correlation	.390	.432	1.000	.600	-.137
	Sig (2-tailed)	.236	.213	.	.051	.688
	N	11	10	11	11	11
Locus of Control	Correlation	.385	.102	.600	1.000	-.161*
	Sig (2-tailed)	.242	.779	.051	.	.637
	N	11	10	11	10	11
Total CFSEI	Correlation	-.657*	-.588	-.137	-.161*	1.000
	Sig (2-tailed)	.028	.074	.688	.637	.
	N	11	10	11	11	11

Table 3.13

Pearson Correlations – Total Sample

		Total CDI	Total RCMAS	Total PSI	Locus of Control	Total CFSEI
Total CDI	Correlation	1.000	.788**	.396	.470*	-.759**
	Sig (2-tailed)	.	.000	.062	.024	.000
	N	23	21	23	23	22
Total RCMAS	Correlation	.788**	1.000	.343	.446*	-.646**
	Sig (2-tailed)	.000	.	.128	.042	.002
	N	21	21	21	21	20
Total PSI	Correlation	.396	.343	1.000	.434*	-.410
	Sig (2-tailed)	.062	.128	.	.039	.058
	N	23	21	23	23	22
Locus of Control	Correlation	.470*	.446*	.434*	1.000	-.426*
	Sig (2-tailed)	.024	.042	.039	.	.048
	N	23	21	23	23	22
Total CFSEI	Correlation	-.759**	-.646**	-.410	-.426*	1.000
	Sig (2-tailed)	.000	.002	.058	.048	.
	N	22	20	22	22	22

Table 3.14

Pearson Correlations – *Internalising Disorders*

		Parental self-esteem	P-CDI	DR	DC	PS
Parental S-E	Correlation	1.000	-.831**	.090	-.821	.176
	Sig (2-tailed)	.	.005	.819	.007	.651
	N	9	9	9	9	9
PCD-I	Correlation	-.831**	1.000	.320	.897**	266
	Sig (2-tailed)	.005	.	.367	.000	.457
	N	9	9	9	10	10
DR	Correlation	.090	.320	1.000	.152	.990**
	Sig (2-tailed)	.819	.367	.	.676	.000
	N	9	9	10	10	10
DC	Correlation	-.821	.897**	.152	1.000	.079
	Sig (2-tailed)	.007	.000	.676	.	.827
	N	9	10	10	10	10
PS	Correlation	.176	266	.990**	.079	1.000
	Sig (2-tailed)	.651	.457	.000	.827	.
	N	9	10	10	10	9

Table 3.15

Pearson Correlations – *Externalising Disorders*

		Parental self-esteem	P-CDI	DR	DC	PS
Parental S-E	Correlation	1.000	-.451	.137	-.279	.120
	Sig (2-tailed)	.	.164	.688	.407	.726
	N	11	11	11	11	11
PCD-I	Correlation	-.451	1.000	.429	.415	.379
	Sig (2-tailed)	.164	.	.188	.205	.250
	N	11	11	11	11	11
DR	Correlation	.137	.429	1.000	-.323	.895**
	Sig (2-tailed)	.688	.188	.	.333	.000
	N	11	11	11	11	11
DC	Correlation	-.279	.415	-.323	1.000	-.214
	Sig (2-tailed)	.407	.205	.333	.	.527
	N	11	11	11	11	11
PS	Correlation	.120	.379	.895**	-.214	1.000
	Sig (2-tailed)	.726	.250	.000	.527	.
	N	11	11	11	11	11