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Can adult attachment inform outcome from parent training for children with disruptive behaviours?

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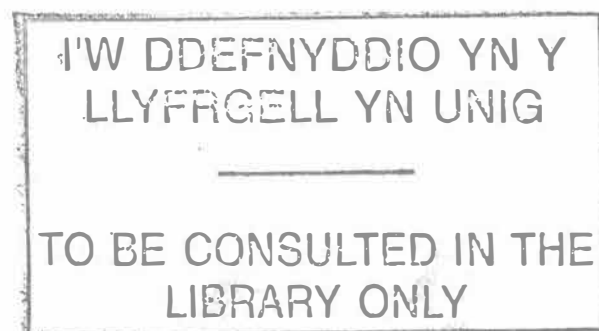University of Wales, Bangor

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Can adult attachment inform outcome from parent training
for children with disruptive behaviours?

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Summary

This thesis examines whether adult attachment, measured using a self-report instrument, can inform outcome from parent training for children with disruptive behaviours.

Firstly the background to the problem of disruptive behaviours is described, along with those factors shown to predispose children to those behaviours and to maintain them. There follows a report on the Bangor Project for Children with Disruptive Behaviours. This project examined whether intensive treatment, involving an initial 3 days' attendance at a purpose-built unit, would produce better outcomes than standard Child and Adolescent Mental Health treatment. The sample comprised 41 children (35 boys and 6 girls) aged 27-121 months, referred with severe disruptive behaviours, and their mothers. Mothers received behaviourally-based therapy in both intensive and standard treatment. Outcome measures were taken 9 months after the start of treatment. Results showed no differences between the groups in child behaviour outcome, which was the only targeted variable. The duration of the problem before treatment was the factor most strongly associated with clinically important change. However, there were indications that concomitant positive effects of treatment were greater for the mothers in intensive treatment, more of whom remained in treatment.

The attachment literature is then addressed, outlining attachment theory and classifications applied to infants. Links are then made between the parenting and child behaviour outcomes associated with different infant attachment categories. Evidence for ways in which adult attachment relates to those factors implicated in the development and maintenance of disruptive behaviours and to parent training is then presented.

A subsample of mothers from the Bangor Project for Children with Disruptive Behaviours (N = 29) had completed the Adult Attachment Scale (Collins & Read, 1990) at the same time as the other measures. This sample was used to investigate whether mothers' attachment style, secure or insecure, could inform outcome for their children. A regression model showed that follow-up standardised child externalising behaviour scores were strongly associated with baseline scores in the secure group but not in the insecure group. The model accounted for 60% of the variance in follow-up scores. The implications from this relating to parent training for children with disruptive behaviours, are discussed.

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Foreword

This thesis was the result of the author wishing to explore what a measure of adult attachment might add to understanding outcome from behavioural approaches to parent training for children with disruptive behaviours. The thesis was started when the author was working as Research Officer on the Bangor Project for Children with Disruptive Behaviours and its focus was very different to that of the main Project.

The Project developed as a result of the longstanding interest in conduct problems of Judy Hutchings, a senior clinician employed by the North West Wales NHS Trust Child and Adolescent Mental Health Service. Around the time when outcome findings from the interventions typically provided by one North Wales Child and Adolescent Mental Health Service were produced and generating interest (Hutchings, 1996a), the possibility of a new location as an additional resource for the Bangor-based Service had given impetus to assessing and revising what that Service was offering. Although the move failed to materialise, there was considerable enthusiasm around the idea of establishing a venue specifically for parent training in the treatment of children referred with disruptive behaviours. The timing of the first round of bids from the Welsh Office of Research and Development was opportune, and a successful bid was made.

Hutchings' longer term aim, with the Project as a starting point, was to educate professionals in the principles and practice of behavioural parent training, so that they could offer consistent and effective help to families experiencing disruptive behaviours in their children. In a parallel study during the course of the Project, she and this author established that on the whole, these principles were not familiar to the Health Visitors who had most contact with families (Hutchings & Nash, 1998). Hutchings' clinical work in the Bangor Project was supported and informed by a post-doctoral researcher whose remit was to be responsible for the planning and evaluation of the Project. Tragically, this person died in the initial stages of the

Project. This author was appointed Research Officer with overall responsibility for conducting the research. It soon became clear that the original outline for the Bangor Project for Children with Disruptive Behaviours was going to need adjustment, because referral numbers were lower than expected and the gathering of the initial interviews was taking more time than anticipated. So this was one of this author's first tasks as the Project got under way.

This author was convinced of the value of the behavioural approach, but was attracted to the idea of looking at what was happening during training from a very different point of view which did not appear to sit easily with a behavioural approach. It was decided that although this author would report on the Project as a new and important attempt to address the problems of families with severe disruptive behaviours, adopting a very different approach could additionally contribute to knowledge. The resulting thesis would inform clinicians and researchers about the Bangor Project for Children with Disruptive Behaviours and introduce a context of adult attachment which was not within the remit of the Project, nor of current interest to most parent trainers at the time. The addition of a measure of adult attachment and also a measure of reported discipline practice, which was incorporated at the same time, enhanced the already rich set of data.

The first half of this thesis therefore reports on the Bangor Project for Children with Disruptive Behaviours. The second half examines what attachment theory contributes to outcome from parent training.

Acknowledgements

Chapter One

INTRODUCTION TO THE PROBLEM OF DISRUPTIVE BEHAVIOURS AND
THE PICTURE IN NORTH WEST WALES

Disruptive behaviours in children are major violations of age-appropriate social expectations which present over a long period of time. Examples would include excessive levels of disobedience, unusually frequent and severe temper tantrums, cruelty to other people or to animals, fighting or bullying, severe destructiveness to property, arson, stealing, repeated lying, truancy from school and running away from home. Such behaviour appears to be becoming more widespread and increasing in severity, as indicated by prevalence studies (e.g. Prosser & McArdle, 1996) and by the growing numbers of children excluded from schools. There is fairly high continuity into adolescent offending. Most juvenile delinquents showed disruptive behaviours when younger. Expressions of antisocial behaviours in adulthood have much in common with their earlier manifestations, in vandalism, theft and violence towards people, except that there is a greater use of weapons. To these are added group violence, the use of and dependence on illegal drugs and drunk driving. Alcoholism is frequently reported in adults who had conduct disorder when they were children (e.g. Jang, Vernon & Livesley, 2000).

Children with disruptive behaviours are typically unhappy and have low self-esteem. They do not get on with their peers and if the behaviours persist, these individuals will tend to have difficulties with relationships in later life, for example in elevated rates of family break up and violence in the home. School failure tends to lead to later unemployment which exacerbates the problems. Hamalainen and Pulkkinen (1996) found that for older children, the risk for different types of offences (at age 27) was highest for boys who exhibited escalating conduct problems and school failure over their time in school.

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Diagnostic Classification

The two major classification systems are the International Statistical Classification of Diseases and Related Health Problems (ICD-10; World Health Organisation, 1992) and the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, American Psychiatric Association, 1994). ICD-10 uses the term Conduct Disorder as a global category, within which Oppositional Defiant Disorder is used for younger children. DSM-IV uses Disruptive Behavior Disorders, and within this, Oppositional Defiant Disorder is used for younger children and Conduct Disorder (aggressive behaviour) for older children. Diagnostic criteria from both systems include repetitive and persistent patterns of antisocial, aggressive, or defiant conduct. Classifications are to be found in Appendix A.

In clinical practice in the UK, criteria from the manuals are rarely used in diagnosis. There is a considerable overlap in categories and the literature suggests that it is often difficult to distinguish between these kinds of problems, and that for many purposes it may not be necessary to do so. There is also debate regarding the appropriateness of diagnosing these behaviour patterns as mental disorders (Richters & Cichetti, 1993). Most researchers and clinicians therefore use all-encompassing terms such as 'conduct problems', 'oppositional behaviours', and 'disruptive behaviours'. In this thesis 'disruptive behaviours' will generally be used, except when reporting research which specifically employs ICD-10 or DSM-IV categories.

Aetiology of Disruptive Behaviours

The considerable body of multidisciplinary research into the aetiology of disruptive behaviours has established environmental and genetic factors, and particular aspects of parent-child interaction as important in the development and maintenance of

disruptive behaviours. All the major areas currently empirically identified are incorporated in Spender and Scott's (1996) model in Figure 1.
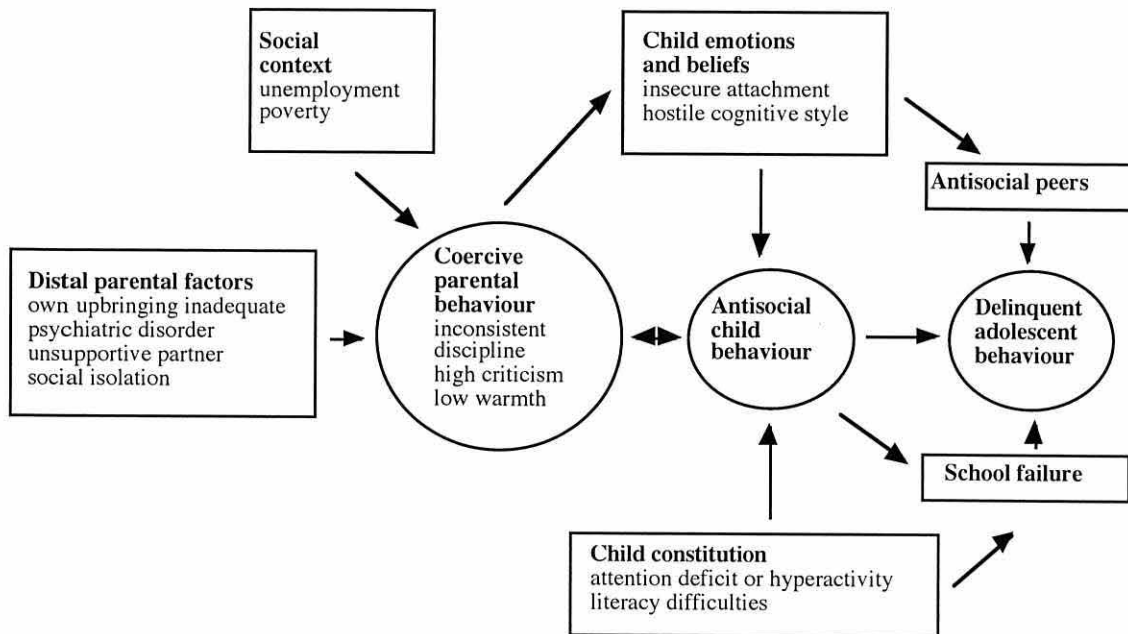
Figure 1. A model incorporating factors shown to influence conduct disorder. From Spender and Scott (1996).

Evidence relating to most of these areas will now be considered.

Child Variables

Gender

Higher numbers of boys are referred to NHS mental health services with disruptive behaviours than are girls, and independent home observations have indicated significant gender-linked differences in the behavioural symptoms of early-onset conduct problems (Webster-Stratton, 1996). Parents' differential socialisation of boys and girls may have some bearing on higher referral numbers. However, Lytton and Romney's (1991) meta-analysis of 172 studies found most effect sizes to be non-significant and small, and Hyde (1984), looking at the size of gender differences in

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aggression found that approximately 5% of the variance in aggression was due to gender differences.

Genetics

The male predominance of externalising behaviours has indicated the involvement of the androgen receptor gene, and Comings, Chen, Wu and Muhleman (1999) did find an association between this gene and disruptive behaviours. Scott (1998a) reports that twin and adoption studies indicate a modest genetic effect. A twin study found that genetic influence was considerable and similar for both sexes (Hudziak, Rudiger, Neale, Heath, & Todd, 2000). Adoption studies looking at adult crime statistics, suggest that it is possible that children whose parents were antisocial may be particularly vulnerable to adverse family conditions (Bohman, 1996). Slutske et al. (1997a) report a substantial genetic influence on risk for conduct disorder (N = 2,682 adult twin pairs) and a modest effect of shared environment on risk. The mechanisms important for development and for the degree of influence, were similar for boys and girls.

Attention Deficit Hyperactivity Disorder

In attention deficit hyperactivity disorder in particular, there is growing evidence for a genetic effect (Goodman & Stevenson, 1989). Three groups of symptoms are integral to hyperactivity. These are overactivity, inattention to immediate tasks and impulsiveness. The amount of activity may not be abnormal, but appears so because of its quality. Attention deficit manifests itself as distractibility, failure to stay on task and frequent changes of activity. Impulsive children tend to act precipitately with no concern for consequences. They are very poor at turn taking and suffer socially because they ruin games, and often end up in fights. They frequently expose

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themselves to considerable danger. Aggression tends to develop in a proportion of children (Taylor, Chadwick, Heptinstall & Danckaerts, 1996).

Further evidence comes from Rey, Walter, Plapp and Denshire (2000) who found that the quality of the family environment did not vary according to a diagnosis of attention deficit hyperactivity in referred adolescents, whereas a poorer family environment was associated with conduct disorder and oppositional defiant disorder and predicted worse outcome (e.g. admission to a non-psychiatric institution, drug and alcohol abuse).

Early ADHD and disruptive behaviours may predict different patterns of conduct problems in adolescence. Danckaerts, Heptinstall, Chadwick and Taylor (2000) found that in a general population sample at 16-18 years who had originally been assessed at 6-7, hyperactive groups showed worse overall social adjustment. Where children and adolescents have hyperactivity together with disruptive behaviours, the comorbid condition puts them at particularly high risk for developing a lifelong pernicious pattern of antisocial and delinquent behaviour which is highly resistant to intervention (Gresham, Lane & Lambros, 2000). Goodman and colleagues are currently working on comorbidity figures, but data on the proportion of children diagnosed with disruptive behaviours who also have ADHD are not yet available (Goodman, personal communication, 4 July, 2001). Barry et al. (2000) argue that the presence of callous-unemotional traits is important to the concept of psychopathy in this group of children. Examples of callous traits would be lack of empathy, or manipulativeness, and examples of unemotional traits would be lack of guilt, or emotional constrictedness. A subset of children with both conduct disorder and attention deficit hyperactivity disorder show callous-unemotional traits in the same way as do adults with psychopathy. These children seem less distressed by their behaviour problems (Barry et al., 2000).

Intelligence

Higher intelligence, particularly verbal abilities, appear to protect against antisocial behaviour (e.g. Lynam, Moffitt, & Stouthamer-Loeber, 1993). Lahey, Waldman and McBurnett (1999) argue that individual differences in intelligence are apparent in differences in how communication skills develop. These authors posit that young children with better communication skills are easier for parents to socialise. As the children grow older, higher intelligence may enable them better to understand the consequences of their antisocial behaviour.

Although genetics may be implicated in the aetiology of disruptive behaviours, psychosocial factors have unarguably been established as influential (Rey et al., 2000; Rutter, 1999). It is acknowledged that disruptive behaviours are symptomatic of a deeper malaise in society generally (National Assembly of Wales, 2000). Some of these factors may ultimately be addressable by public health measures, while successful therapeutic interventions are already available for others.

However, the relative contributions to the establishment and maintenance of conduct problems made by socioeconomic, child and parenting factors are not established, and, as indicated in Figure 1, complex relationships exist between them. In a 4-year longitudinal study of 585 children, eight factors in the young child's socialisation and social context were found to predict later behaviour problems (Dodge, Pettit & Bates, 1994). These were harsh discipline, lack of maternal warmth, exposure to aggressive adult models, maternal aggressive values, family life stressors, mother's lack of social support, peer group instability and lack of cognitive stimulation. Socioeconomic status was correlated with these factors.

There follow examples of studies which have examined the main factors. The underlying focus of interest is usually the parenting behaviour in the context of the parent-child relationship.

Social Context

In Spender and Scott's model (Figure 1), social context focuses on unemployment and poverty. This thesis includes the impact of social class.

Social Class

A study examining the origins of health inequalities in a national population sample found social class of origin to be associated with most aspects of people's lives (Power & Matthews, 1997). Risk factors relating to social class included: physical risk factors, economic circumstances, health behaviour, social and family functioning and structure, emotional adjustment in adolescence, social support in early adulthood; and educational achievement and working career, in particular no qualifications, unemployment, job strain, and insecurity. Social class is certainly associated with the presence of conduct problems in children (Wallace, Crown, Berger & Cox, 1997).

Socioeconomic deprivation and social isolation are factors in the development and maintenance of conduct problems (Farrington, 1979, 1995; Herbert, 1995; Rutter & Quinton, 1977; Wahler & Dumas, 1984).

Socioeconomic Deprivation

Low family income is a significant factor in the aetiology of a variety of child behaviour problems. Socioeconomic disadvantage has long been associated with child behaviour problems, subsequent delinquency and adult mental health problems (e.g. Farrington, 1979; 1995; Herbert, 1995). An Australian study (Bor et al., 1997) looked at the relationship between chronic low family income and psychological disturbance in young children using three stages: antenatal, when the children were 6 months old, and when they were 5 years old. They found that the more often families experienced low income, the higher the rate of child behaviour problems at age 5. Lahey et al. (1999) report that lower levels of parental monitoring account for much of the relationship between family income and antisocial behaviour in youths. They also consider that some of the association between lower socioeconomic status and antisocial behaviour reflects downward mobility because of the effects of the parents' own antisocial behaviour on their success in finding and remaining in paid employment.

Webster-Stratton (1989b) found that single mothers reported more child behaviour problems and greater stress than maritally supported and maritally distressed mothers. This was corroborated by independent observation of the children's behaviour and of the mothers' use of a critical and authoritarian style with their children. Webster-Stratton suggested that the financial situation of single mothers, together with their lack of support and ongoing conflict with ex-partners have a negative impact on their perceptions, parenting behaviours, and their children's adjustment.

Distal Parental Factors

Social Isolation

Social isolation has been identified as strongly associated with the development and maintenance of conduct problems (Dumas & Wahler, 1983). Dumas and Wahler (1983; Wahler, 1980; Wahler & Dumas, 1984) found that socially advantaged and non-insular mothers were likely to succeed in parenting programmes.

Parental Psychological Resources

Parental psychological resources may be considered the final common pathway for socioeconomic variables. Parents coping with children with disruptive behaviours are often experiencing a considerable amount of stress from socioeconomic (Conger et al., 1992) and social support factors (Rutter & Madge, 1976; Wahler, 1980) which will make demands on their resilience and will impact on parenting. Belsky (1984) proposed psychological resources as the most important determinant of parenting both because of direct effects on the parent's functioning and because an individual's psychological resources may well play a major part in determining the quality of support received. Depressed mood is the major mental health variable studied in relation to its effect on children's disruptive behaviours.

Depression

The term depression is commonly used as a description of low mood and at one end of the spectrum, is a commonplace of human experience. Clinical depression however, is a syndrome of symptoms including emotional, cognitive, behavioural and

bodily changes. A summary of the classification of major and minor depression (Williams, 1992) is to be found in Appendix B.

The literature relating to depression in parents and disruptive behaviours in children draws from samples of psychiatrically diagnosed patients and from normal samples who have been screened with an instrument such as the Beck Depression Inventory (BDI; Beck, Steer & Garbin, 1988; Beck, Ward, Mendelson, Mock & Erbaugh, 1961). The BDI was designed to gauge the severity of depression in people who had been diagnosed. Although the BDI may be administered and scored by paraprofessionals, it should be interpreted only by professionals with appropriate training. However, it is common and accepted practice in research into disruptive behaviours to present results as though the cut-off points in the BDI indicating clinical caseness are diagnostic.

Over 50% of mothers of children with disruptive behaviours may be clinically depressed (Alpern & Lyons-Ruth, 1993; Hutchings, 1996b). Children of depressed parents are at increased risk of developing some form of psychopathology (Downey & Coyne, 1990). Maternal depression is certainly more common among mothers of children referred for disruptive behaviours than among mothers of similar aged non-referred children (Wahler & Dumas, 1984). Some of this contribution will be because children are more likely to be referred to Child and Adolescent Mental Health Services if their parent(s) shows signs of depression. The direction of the relationship between children's disruptive behaviours and parental depression is not established (Bell & Harper, 1977; Parke, 1978). In combination with other factors or possibly depending on the degree of the depression, it does pose a risk factor for child development. Children of depressed parents are two to five times more likely to develop behaviour problems than children of non-depressed parents (Welsh-Alliss & Ye, 1988; Weissman et al., 1984; Wickramaratne & Weissman, 1998). Cummings and Davies

(1994) report studies indicating even higher rates (Fendrich, Warner & Weissman, 1990; Hammen, Burge & Stansbury, 1990; Weintraub, Winters & Neale, 1986).

Women tend to be the prime carers of young children and are more likely to be diagnosed as depressed than are men (Paykel, 1989; Weissman & Klerman, 1977). Depressed mothers may provide a disruptive, hostile and rejecting home environment for their children (Weissman & Paykel, 1974). Direct links are indicated between maternal depression, negative cognitions and parenting impairments (Caplan et al., 1989, Christensen, Phillips, Glasgow & Johnson, 1983; Downey & Coyne 1990; Wolkind & DeSalis, 1982). Querido, Eyberg and Boggs (2001) report that mothers' higher levels of depression were correlated with higher rates of physical negative behaviours towards their 3-6-year children with conduct problems.

Parents of clinic-referred children, particularly those with disruptive behaviours, tend to make negative attributions towards and have negative perceptions of their children (Dadds & Powell, 1991; Dix & Lochman, 1990; Forehand & Long, 1988; Lobitz & Johnson, 1975). These parents tend to report their children's behaviour more negatively than do independent observers (Christensen, Phillips, Glasgow & Johnson, 1983). Rickard, Forehand, Wells, Griest and McMahon (1981) reported that clinic-referred children fell into two groups: those whose behaviour was comparable to the norm, and those who were deviant and showed signs of antisocial behaviour. The perceptions of the parents of referred nondeviant children may be attributable to some form of depression in those parents (Forehand, Lautenschlager, Faust & Graziano, 1986; Griest, Wells & Forehand, 1979; Rickard, Forehand, Wells, Griest & McMahon, 1981; Webster-Stratton & Hammond, 1990). Depressed mothers see their children's behaviour more negatively than do nondepressed mothers, and this is linked with maladaptive parenting styles (Griest, Wells & Forehand, 1979; Rickard et al., 1981; Schaughency & Lahey, 1985). Webster-Stratton and Hammond (1988) also found that such negative appraisals were related to coercive parenting

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practices. Evidence is emerging that mothers with lower levels of depressive symptomatology may report their children's conduct problems less accurately than mothers with higher levels of depressed mood whose reports were consistent with laboratory observations of the children's behaviour (Querido et al. (2001).

The affective behaviour associated with depression in parents has been shown to give rise to anger, reduced activity and social withdrawal in infants (Cohn & Campbell, 1992). The child's developing capacities to regulate emotion and arousal may be adversely affected by parental insensitivity especially in the early years (Tronick, 1989). Kochanska, Kuczynski, Radke-Yarrow and Welsh (1987), examining resolutions of control episodes between well and affectively ill mothers and their young children, found that well mothers achieved compromise with their children more often than did affectively ill mothers who tended to avoid confrontation with their children. Depressed mothers experienced a greater degree of helplessness regarding their children, and were more likely to feel that outcomes of child development were determined by uncontrollable factors (Kochanska et al., 1987). Endorsed child-rearing philosophy was a relatively more important predictor of behaviour for normal mothers, and affective attitude toward the child was a relatively more important predictor for the behaviour of depressed mothers (Kochanska, 1990). The impact of depression on mothers' control strategies varied according to the child's level of development (Kochanska, Kuczynski & Maguire, 1989).

There are two profiles of how depression affects child management and discipline styles. Depressed parents may be more inconsistent, lax and ineffective in discipline and child management (e.g. Forehand et al., 1986). Alternatively such parents may be more likely to use direct, forceful control strategies. The picture seems to be that depressed parents, as opposed to nondepressed, will tolerate more noncompliance to avoid conflict, but when they do not tolerate noncompliance, disagreements are less likely to end in compromise (Kochanska et al., 1987).

Relationship with Partner

Rutter and Quinton (1984) argued that the main risk to the child did not stem from depression per se but from the marital discord associated with the depression. Cox, Puckering, Pound and Mills (1987) found that marital discord was more closely related to disturbances in mother-child interactions than depression. Miller, Cowan, P., Cowan, C., Hetherington and Clingempeel (1993) found no direct paths between parental depression and children's externalising behaviour but found that depression was mediated by the quality of the couple's relationship, their parenting style, or both.

Marital conflict is associated with more problems in parenting (e.g. Dadds & Powell, 1991; Doane, 1978; Emery, 1982; Fergusson, Horwood, & Lynskey, 1992; McCord, 1979; Oltmanns, Broderick, & O'Leary, 1977; Porter & O'Leary, 1980; Snyder, 1977). Hershorn and Rosenbaum (1985) reported that children from high conflict homes were particularly vulnerable to externalising disorders. More conflicted or less close relationships exist between parent and child when the marital relationship is strained (e.g. Jouriles, Pfiffner, & O'Leary, 1988). Webster-Stratton and Hammond (1999) found evidence for direct and indirect links between negative marital conflict management style and children's conduct problems. The indirect link between negative marital conflict management and children's interactions with parents and peers was found to be mediated by critical parenting and low emotional responsivity. Webster-Stratton (1989b) found significant correlations between mothers' reports of low marital satisfaction and more negative perceptions of child adjustment, increased stress levels, commands and child noncompliance.

It is not clear whether the child's behaviour gives rise to excessive stress in the parents' relationship or whether conflict between parents disrupts the child's functioning or whether both behaviour problems and marital problems are linked by parental psychopathology (Lahey, et al. 1988). Shaw, Emery and Tuer (1993) cite

research supporting the hypothesis that marital conflict first disrupts parenting which then causes difficulties for the children.

There is some evidence that single parents report more child behaviour problems and stress than maritally distressed mothers (Webster-Stratton, 1999). These single mothers reported their daughters as having significantly more behaviour problems than were reported for girls in the other groups. Home observation did not confirm this. This finding was contrary to the trend from other studies, mainly from nonclinic samples, which indicates that boys from single-parent families have more behaviour problems (e.g. Emery & O'Leary, 1982; Hess & Camara, 1979; Hetherington, 1988; Porter & O'Leary, 1980; Wallerstein & Kelly, 1980).

Parenting

The current emphasis on parental responsibility for the behaviour of offspring (Children Act, 1989, 1991) is based on the view that delinquent behaviour is more a product of inadequate parenting than of social or economic factors. The relative contributions of these variables is debatable, but that parenting is important is both intuitive and substantiated by a sizeable research base. It is certainly more immediately addressable than social or economic factors. Bergeron et al. (2000) found that individual and family characteristics made a more important contribution to the development of psychopathology than do socioeconomic factors.

The child, parent or social factors relating to the occurrence and maintenance of disruptive behaviours which have been introduced so far, all impact on how parents bring up their children. Belsky (1984) suggested that functional parenting is most greatly influenced by the psychological resources of the parent and to a lesser extent by contextual sources of support. He argued that the characteristics of the child, though important, are less influential than the former two. Aspects of parenting identified as affecting the development of prosocial behaviour include parental

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involvement, positive reinforcement, monitoring, problem-solving and discipline (Patterson, Reid, & Dishion, 1992). Long term antisocial behaviours have been particularly associated with parental disharmony; rejection of the child; low levels of engagement in the child's activities; poor supervision and erratic and harsh discipline.

Particular aspects of discipline are associated with aggressive behaviours in young children. The role of harsh parental discipline in particular is strongly associated with children's externalising problems (e.g. Dadds, 1987). This association is evident in children as young as two years old. O'Leary, Slep & Reid (1999) cite correlations of between .36 and .69 between such discipline and the externalising behaviours of children between 2 and 11 (Arnold, O'Leary, Wolff & Acker, 1993; Campbell, Pierce, Moore, Marakovitz & Newby, 1996; Patterson et al., 1992; Vuchinich, Bank & Patterson, 1992). Over-reactive discipline is central to Patterson's model of the development and maintenance of disruptive behaviours. Patterson argued that parents of aggressive children deal ineffectively with everyday disciplinary confrontations. They tend to get involved in coercive and intense interchanges with their children. An example would be: Parent 'Put your toys away.'; Child 'No, I won't. You can't make me.'; Parent 'If you don't put your toys away now, you'll get a spanking.'; Child 'You butthead.'; Parent 'Don't you talk to me like that!'. When attempting to deal with disruptive behaviours parents are likely to be inconsistent, submissive or ambiguous. Dysfunctional discipline includes yelling, swearing at the child, high rates of criticism and negative commands, physical assault and unreasonable threats and expectations (O'Leary et al., 1999). Patterson's model was developed with boys and older children, but has been shown also to apply to younger children and to girls (Eddy, Leve, & Fagot, 2001). Parental lack of ability to provide contingent reinforcement and to model successful problem solving further handicaps their children when they move into other social environments such as school.

The influence of discipline is such that Stormshak, Bierman, McMahon and Lengua (2000) conducted a study to differentiate which parenting practices might lead to particular child disruptive behaviour problems. In a sample of parents of 631 early elementary school children, they found that parenting practices which included punitive interactions were associated with higher rates of all child disruptive behaviour problems. Lower levels of warm involvement were shown by parents of children who showed elevated levels of oppositional behaviours. Physically aggressive parenting was linked more specifically with child aggression. These effects were fairly consistent across ethnic groups and sex.

Patterson, DeGarmo and Knutson (2000), when exploring the comorbidity of hyperactive and antisocial behaviours, developed a structural equation model showing that the relation between hyperactivity and antisocial behaviour really reflected a shared disruption in parental discipline. However, to date, parenting practices have been found to contribute more to the prediction of oppositional and aggressive behaviour problems than to hyperactive behaviour problems (Stormshak et al., 2000).

There is consistent, albeit not uniform, evidence that parents' cognitions are related to their parenting behaviours (e.g. MacKinnon, Lamb, Belsky & Baum, 1990). Attribution theory has governed most investigations into parents' beliefs about disruptive behaviours. Parental beliefs about preschoolers' aggressive and withdrawn behaviour, relate to parenting behaviour and differ according to whether parents have socially competent, shy or aggressive children (Rubin & Mills, 1990). Maternal hostile attributions are related to children's externalising behaviour problems and such negative attributions are correlated with and predict harsh discipline (e.g. Dix, Ruble & Zambarano, 1989; MacKinnon-Lewis, Lamb, Arbuckle, Baradaran & Volling, 1992; MacKinnon-Lewis, Lamb, Hattie, & Baradaran, 2001). The profile of parents of aggressive children is that they are critical of their children and tend to use harsh

punishment (e.g. Dishion, 1990). They tend to attribute the children's behaviour to factors internal to the child (e.g. Dix & Lochman, 1990). Parents' cognitions about their children appear to transfer to unrelated children. Bugental and Shennum (1984) found that mothers elicited behaviours which maintained their cognitions from nonrelated children. There is evidence that mothers of aggressive children also attribute negative motivation and personality traits to children they do not know who show undesirable behaviours (Dix & Lochman, 1990). Biased negative expectations also predicted children's social performance at school (Pettit, Dodge & Brown, 1988). Mothers' attributions have been tested by using ambiguous child behaviours. Mothers of children with disruptive behaviours have been found to make more negative attributions, feel more angry reactions to ambiguous behaviour and to use harsher discipline (MacKinnon-Lewis et al, 1994; Strassberg, 1995).

Nix et al. (1999) demonstrated that mothers' hostile attribution tendencies predicted children's externalising problems four years later when controlling for earlier (early or preschool) behaviour problems, and that harsh discipline practice mediated a large portion of this relationship. Studies such as this confirm the literature reviewed by Patterson, Reid and Dishion (1992) which links hostile attributions and harsh discipline to disruptive behaviours.

Parent-Child Interaction

Overreactivity in parents of children with disruptive behaviours is very blatant and frequently modifiable. Parent-child interaction is the immediate context of disruptive behaviours in young children and researchers have more recently been looking at earlier parent-child interaction in order to identify specific precursors to both antisocial and more acceptable behaviours in children. Olson, Bates, Sandy and Lanthier (2000) studied the infant and toddler precursors of externalising behaviour

throughout the children's time in education and at 17. As expected, multiple informants confirmed suboptimal patterns of observed caregiver-child interaction and the caregiver's perception of child difficultness and resistance to control as risk constructs. In addition, they found suggestions that the negative cognitions held by caregivers towards their children with disruptive behaviours, might be evident in these mothers' belief that as toddlers, their children were unresponsive to them.

Gardner, Sonuga-Barke and Sayal (1999) studied 52 mothers to see what strategies they used to prevent conflict with their 3-year-olds. They found that mothers of children with disruptive behaviours and mothers of children who did not have such problems used similar frequencies of positive strategies. Mothers of children with behaviour problems were less likely to use pre-emptive, and more likely to use reactive strategies to try to resolve conflict. These researchers found that it was child conduct problems, over and above other characteristics, which discriminated those who used pre-emptive or reactive strategies. Children's behaviour problems at age five were predicted by maternal use of reactive strategies at age three.

The quality of mother-child interaction seems to act as a mediator between both maternal depressive mood and socioeconomic status and the development of disruptive behaviours (Harnish et al., 1995). Such interaction will depend to an extent on maternal responsiveness. Appropriate responding, in which sensitivity plays a part, is a factor in the development of disruptive behaviours. Related definitions of responsiveness are given in Wakschlag and Hans' (1999) paper looking at prospective links between early parenting and behaviour problems. These authors examined the association of maternal responsiveness during infancy with behaviour problems in middle childhood. They found that maternal responsiveness was significantly associated with disruptive behaviour problems (though unrelated to attention problems). Absence of maternal responsiveness during infancy increased the risk of disruptive behaviour problems in middle childhood, even when concurrent

parenting and established risk factors for disruptive behaviour were controlled. Maternal responsiveness also interacted with concurrent family risk to predict disruptive behaviour symptoms. These findings are in keeping with other studies which show that in low income families, maternal insensitivity leads to increased externalising behaviours (e.g. Shaw, Keenan & Vondra, 1994). This was also shown in responses to a social problem solving questionnaire, where more maternal sensitivity led to less aggressive responses (Goldberg, Lojkasek, Gartner & Corter, 1989).

The mutual regulation of affect in infancy, as moderated by temperament, is proposed as an important contributor to the emergence of self-regulation. Mother-infant affect synchrony is related to a mother's sensitivity and has been shown to be antecedent to the emergence of self-control (Feldman, Greenbaum & Yirmiya, 1999). Self-control, verbal IQ, and maternal warm discipline were assessed when children were two years old. Maternal synchrony with infant affect at 3 months (infant leads, mother follows) and mutual synchrony at 9 months (cross-dependence between maternal and infant affect) were each related to self-control at 2 years when controlling for temperament, IQ, and maternal style. Infant temperament moderated the relations of synchrony and self-control, and closer associations were found between mutual synchrony and self-control for difficult infants. Rubin, Hastings, Chen, Stewart and McNichol (1998) reported related findings, showing that toddlers' observed and mother-rated dysregulated temperament and mothers' use of warmth and negative dominance during interactions with their 2-year-olds predicted toddlers' aggression and maternal ratings of externalising difficulties.

<u>Attention and Observation</u>

In addition to the factors included in Spender and Scott's model (Spender & Scott, 1996; Figure 1), approaches to understanding and addressing the problem

include parental attention and observation. The success of teaching parents of children with conduct problems more functional ways of disciplining their children may offer some support to causality. However, Wahler and Dumas (1989) argue that poor parenting is not necessarily due to an absence of parenting skills, but in some parents may be attributed to a stress-induced deficiency in maternal attending. Multiple stressors predict poor outcome (Dumas, 1984; Dumas & Wahler, 1983), and stress may lead to a narrowing of the range of environmental cues to which the parent pays attention and result in inconsistent responding towards the child (Wahler & Afton, 1980). In support of this, parental ability accurately to describe their children's behaviour is predictive of outcome in parenting programmes. Mothers with poor observational skills who succeed in such programmes, develop more accurate observational skills (Wahler, 1980).

<div align="center">Summary of Predisposing and Maintaining Factors</div>

Antisocial child behaviour is known to occur in a context of coercive parental behaviour which includes inconsistent discipline in a context of high levels of criticism and low warmth towards the child. Such parental behaviour is influenced by parental factors such as psychiatric disorder, having an unsupportive partner, and being socially isolated. The parent's own upbringing is also strongly implicated. Unemployment and poverty also influence coercive parental behaviour. This thesis is examining the outcome from parent training for children with disruptive behaviours and is concentrating on parental factors. The child's emotions and beliefs which contribute to antisocial behaviour were not part of this investigation. However, it is clear that children's hostile cognitive style and insecure attachment which are influenced by coercive parental behaviour, and the child's own constitution, are also predisposing factors (e.g. Spender & Scott, 1996). The reciprocal dynamic effects of parental discipline and disruptive behaviour are the target of most interventions.

Interventions

Efforts to help resolve children's disruptive behaviour problems depend on how the problems are construed and resources available to implement approved programmes or assess new ones. The complexity of the aetiology is reflected in the variety of interventions. Kazdin (2000) notes that over 500 psychotherapies can be documented in child and adolescent therapies. They range from individual treatment to community studies and use different settings, approaches and combinations of these. Computer programmes for parent training are currently being piloted but, so far as this author is aware, not yet with clinical populations (MacKenzie & Hilgedick, 1999).

The main interventions for disruptive behaviours include parent management training, problem solving skills training and multisystemic therapy (Brestan & Eyberg, 1998; Kazdin, 2000). In a review of 82 studies of psychosocial interventions for conduct problems, Brestan and Eyberg (1998) identified behaviourally-based parent training programmes as most successful with younger children. The main components of such programmes are strategies for increasing desired behaviour, techniques for reducing unwanted behaviour and strategies for avoiding trouble (Scott, 1998b). Positive reinforcement, such as parental attention, which the child usually receives when he or she engages in disruptive behaviours, is reduced. At the same time, reinforcement for prosocial and compliant behaviour is increased. Contingent punishment is applied when the child displays disruptive behaviour so that the consequences are more predictable, contingent and immediate (Barkley, 2000; Eyberg & Robinson, 1982; Forehand & McMahon, 1981; Patterson, 1975; Wahler & Fox, 1980; Webster-Stratton & Spitzer, 1996). Forms of positive reinforcement always include the contingent use of positive parental attention. They may also involve treats such as sweets, toys or privileges, or tokens which can be exchanged for these. Punishment is usually in the form of time-out from reinforcement (Barkley, 2000). That such programmes are effective has been established in both clinical and

community samples. However, where children have been identified by schools, and parents have not actively sought help, they do not seem to be so effective. Thirty to 65% of such families do not accept or attend the training programme offered (Barkley, 2000; Barkley, Shelton, & Crosswait, 2000; Cunningham, Bremmer, & Boyle, 1995). The specifics of recommended strategies are being investigated in greater detail to determine more precisely what works and how, and it is emerging that some forms of positive parenting, such as praise, may work only in the context of other appropriate social contingencies, or may not be a reinforcer for some children (Wahler & Meginnis, 1997).

Webster-Stratton developed a series of training tapes, based on social learning theory, for use with groups of parents. This form of treatment is now well-established. Parents are shown the themes, principles and procedures of behavioural methods relating to child management. These are supplemented with therapist-led discussions. Treatment manuals, books and pamphlets are available as part of the programme (e.g. Webster-Stratton, 1987) as they are with other programmes (e.g. Forehand & Long, 1996; Sanders & Dadds, 1993). The programme has been shown to be effective in improving the ways in which parents interact with and discipline their children, and in clinically significant reduction in disruptive behaviours which is maintained at 1 to 3 year follow-up (Brestan & Eyberg, 1998; Webster-Stratton, 1996; Webster-Stratton, Hollinsworth & Kolpakoff, 1989). Taylor, Schmidt, Pepler and Hodgins (1998) found the Webster-Stratton approach to be more effective with families with children aged 3 to 8, than the eclectic approach typically offered by services. Scott, Spender, Doolan, Jacobs and Aspland (2001) have recently reported large reductions in antisocial behaviour in a clinically referred group who participated in a Webster-Stratton programme. Group Parent Management Training is beginning to be used in community settings where it has been found to achieve better results and be much more cost effective than individual training (Cunningham et al., 1995;

Thompson et al., 1996). The approach is also used on a larger scale as part of early intervention in schools (e.g. Head Start; Webster-Stratton, 1998), and has been recommended by the Home Office for Sure Start (see later). As in clinical samples, conduct problems are reduced and positive parenting increased.

Although parent training has considerable impact, there are indications that combining parent training with child training may be more effective. Webster-Stratton and Hammond (1997) compared child and parent training interventions in 97 families with children aged 4-8 with early-onset conduct problems. Conditions to which children were randomly assigned were a parent training treatment group, a child training group, a combined child and parent training group, and a waiting-list control group. The combined child and parent training group showed the most consistent improvement both in school and at home. Children in the combined child and parent training group and more especially the children in the child training group, showed improvements in problem solving and conflict management skills. The groups which displayed more positive interactions at home were the parent training and the combined child and parent training group. Although these changes were maintained at one-year follow-up they were probably not large enough to justify the costs of implementing both programmes.

In parent management training, therapists work with parents to teach them the fundamental principles of child behaviour change and in therapy sessions, clinician and parent review the progress of the treatment, for example, giving feedback and rehearsing skills. Specific child behaviours are targeted. Parent-child treatments have a wider remit and put greater emphasis on the interaction patterns between parent and child to improve the overall relationship (Foote, Eyberg, & Schuhmann, 1998). The therapist usually works directly with the parent and child dyad. This approach has proved successful in reducing aggression and noncompliance and improving parenting skills and more general parental functioning, with treatment gains being

maintained at 1-year follow-up for both parents and children. However, Newcomb (1995, cit. Foote, Eyberg, & Schuhmann, 1998) reported that over half of a small sample of 13 preschool children who had participated in this treatment again met diagnostic criteria for a diagnosis of disruptive behaviour by 2-year follow-up.

A combination of behaviourally-based parent training with a child-based cognitive approach seems to be effective as children grow older (e.g. Kazdin & Crowley, 1997). Bennett and Gibbons (2000) reviewed 30 studies comparing child-based cognitive-behavioural therapy for antisocial behaviour with no-treatment, attention or waiting-list control groups. They found a trend for child age to correlate positively with post-treatment effect size, suggesting that cognitive-behavioural therapy for children with antisocial behaviour may be more effective than behavioural parent training alone for older elementary-school aged children and adolescents. The authors found no relationship between reported treatment efficacy and the number, length or frequency of sessions, the use of clinical rather than non-clinical samples, nor the type of control group. Results from formal family therapy and eclectic approaches have not been widely publicised. However, Luk, Staiger, Mathai, Field and Adler (1998) compared the use of a modified cognitive-behavioural approach with family therapy and eclectic therapy in the treatment of persistent conduct problems in primary school children (N = 32). No statistically significant differences were found in terms of effectiveness between the three groups in terms of child symptoms, parents' mental health, parenting stress, family functioning, nor in the parental relationship. Multiple family group therapy has been shown to be more effective than individual family therapy in reducing disruptive behaviour in urban, low-income minority children and families (McKay, Gonzales, Quintana, Kim , & Abdul-Adil, 1999).

Interventions in the UK include an intensive 'Mellow Parenting' programme which involves a day a week for 16 weeks (Puckering, Rogers, Mills, Cox & Mattson-

Graff, 1994). This programme resulted in significant reductions in negative interactions and 80% of parents involved were removed from the local Child Protection Register. Scott (1998b) describes an intensive intervention which can be applied to both group and individual work. This offers specific techniques based on social learning principles for child management and also offers opportunities for parents to discuss their beliefs and feelings about parenting. Those parents who have greater difficulties are seen individually with their children, and are helped to work through issues such as the parent's own childhood abuse and family relationships.

The many approaches to therapy include medication for those hyperactive children who have very severe symptoms displayed both at home and school. However, Danckaerts et al. (2000) cite Hechtman (1980) as reporting that medication does not necessarily alter negative prospects for hyperactive cases in clinical follow-up studies. Danckaerts et al. suggest that lack of intervention for comorbid problems may be responsible for this. Cunningham's (1999) preliminary conclusions from the NIMH study were that for children with attention-deficit hyperactivity disorder, aged 7-9, combined medication and behavioural management demonstrates more benefits than do behavioural treatments or the medication management used by most families in the community control conditions. Core symptoms of attention deficit hyperactivity disorder appear to be amenable to treatment with medication. Jensen et al. (1999) compared pharmacotherapy and behaviour therapy for attention deficit hyperactivity disorder over 13 months. Children (N = 579) were aged 7-9.9 years and randomly assigned to one of four conditions: medication management; intensive behavioural treatment (parent, school, and child components, with therapist involvement gradually reduced over time); these two combined; or standard community care. They found that careful medication management was superior both to behavioural treatment and to routine community care (which included medication) in reducing symptoms. They also found that combined and medication management treatments did not differ

significantly on any direct comparisons. However the combined treatment showed superiority in reducing oppositional or aggressive symptoms, internalising symptoms, teacher-rated social skills, parent-child relations and reading achievement, and that combined treatment proved superior to intensive behavioural treatment and/or community care while medication management did not.

Multisystemic therapy would appear appropriate for families who fail to attend or drop out from training. Although originally used more as a therapy for problems in adolescents, this is being used with families of younger children, and addresses a greater range of family issues. It is tailored to each family's problems, risk factors and obstacles to treatment and delivered at home.

A 2-year follow-up of a year-long multi-method psycho-educational intervention in the US for preschool children with disruptive behaviour (Shelton et al., 2000), assessed four treatment conditions: no-treatment, parent training only, classroom treatment only, and the combination of parent training with classroom treatment. Immediate post treatment results showed some impact for the classroom intervention only. However, 2-year follow-up showed no differences between those children who received classroom treatment and those who did not, and the researchers commented on poor attendance for the parent training. Results suggest that early intervention in the classroom may not last.

It is not possible to say how long treatments should last because of efforts to develop more abbreviated and cost-effective variations (e.g. Thompson, Ruma, Schuchmann & Burke, 1996) and to combine Parent Management Training with other multimodal treatments (e.g. Webster-Stratton, 1996). However, about 20 hours therapy with individuals is seen as necessary for substantial improvement (Patterson, Chamberlain & Reid, 1982; Scott, 1998b).

Prevention

The negative impact of disruptive behaviours is such that large-scale prevention projects have been conducted, especially in the United States. Initial results for the high-risk sample from the Fast Track prevention intervention trial for conduct problems indicate promising findings (Bierman et al., 1999). The Fast Track programme is a multi-site, multi-component preventative intervention for young children at high risk for long-term antisocial behaviour. Its aim was to improve competencies and reduce problems in a high-risk group of children selected at nursery school stage. Intervention included a universal-level classroom program with social skills training, academic help, parent training, and home visiting. The researchers report that by the time the children were 6-7 years old, positive and moderate effects were observed on the children's conduct problems. Social, emotional, and academic skills improved, as did interactions with peers and social status. Special education use decreased. Parents reported using less physical and more appropriate discipline, gaining more satisfaction in parenting, being more positively involved with the child and with the school. These effects were similar across child gender, race, site, and cohort.

An earlier, educational intervention in the United States, the Perry/High Scope programme, resulted in reduced antisocial behaviours. Educational input was provided for deprived children aged 3-4. By the age of 27, these individuals had a lower rate of criminal arrests, received less in state benefits and had better peer relations than randomly allocated controls (Schweinhart & Weikart, 1993).

The Triple P 'Positive Parenting Program' developed in Australia by Sanders, provides five levels of family intervention of increasing strengths. The aim is to determine and provide the minimum intervention required by a parent to deflect their children from a pathway towards serious problems (Sanders, 1999).

In Wales, Sure Start is a locally-based programme, broadly parallel with similar programmes in other parts of the United Kingdom. It is targeted at the 0-3 age group and involves intensive preventive action to encourage the development of children at the most formative stage of their lives. It includes the aims of better services, particularly for disadvantaged children, support for parents and greater co-ordination between agencies,

Short term outcome from parent training interventions such as those described earlier, is good (Webster-Stratton et al., 1989). Longer term follow-up studies suggest that up to 50% of children continue to have clinically significant problems after treatment (Webster-Stratton, 1990).

Predictors of Outcome

Child dysfunction is correlated with parental dysfunction, and anxiety, mood and conduct disorders tend to run in families (e.g. Stoff, Breiling & Maser, 1997). The greater the number of factors which contribute to the problem, the more enduring the problem is likely to be and the more difficult parents may find it to implement and adhere to treatment. Multiple stressors also predict poor outcome (Dumas, 1984; Dumas & Wahler, 1983). Those factors implicated in the occurrence and maintenance of disruptive behaviours are also implicated in treatment outcome. Inadequate living conditions, a hostile partner and lack of social support militate against lasting improvement. For example, Dumas and Wahler (1983) found that mothers who were either socially disadvantaged or insular had only a one in two probability of treatment success, and mothers who were both socially disadvantaged and insular were almost certain to fail. Fully developed conduct problems are extremely resistant to treatment (Bank, Marlowe, Reid, Patterson & Weinrott, 1991;

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Earls, 1994; Reid, 1993). The severity of the child's behaviour and comorbid hyperactivity or special needs are also predictors. The severity of parental mental health problems is also associated with lack of progress and may warrant additional treatment (Scott, 1998b). Dadds (1992) argued that marital discord can be a significant impediment for parent training interventions to help children. There is some limited empirical support for the effect of marital discord on treatment outcome (Dadds, Sanders, Behrens, & James, 1987; Dadds, Schwartz, & Sanders, 1987). It is possible that there may be different predictors for outcome from treatment for early-onset conduct problems for boys and girls. Webster-Stratton (1996) found variables regarding parents' psychological states and parenting style were the best predictors for girls but not for boys. Early intervention and longer duration of treatment have been found to correlate positively with outcome (Kazdin, 1995; Patterson, Dishion & Chamberlain, 1993).

Kazdin and Crowley (1997) make a strong case for the importance of child moderators of cognitive-behavioural treatment. They report that in children (aged 7 to 13 years) several child characteristics predicted treatment outcome. These were reading achievement, academic and school dysfunction, and the number of symptoms across all diagnoses. There were indications that parent, family, and contextual factors (socioeconomic disadvantage, parent dysfunction, and adverse child-rearing practices) were related to child predictors, as well as to treatment outcome.

The acceptability of the service to parents is important, and collaborative working is seen as most effective (Webster-Stratton & Herbert, 1994). Patterson and Forgatch (1985) have shown that those therapist behaviours perceived as directive increased the probability of parental resistance and lack of co-operation, whilst non-directive behaviours led to a reliable decrease in client non-compliance and lower attrition rates (e.g. Meichenbaum & Turk, 1987). Both group and individual parent training have proved to be acceptable to service users (Webster-Stratton, 1989b).

The context described earlier implies continuity of disruptive behaviours, particularly those of early onset. The continuity of such behaviours is elaborated here as a setting for prevalence figures.

Early Onset and Continuity of Disruptive Behaviours

Unresolved disruptive behaviours, particularly those of early onset, are relatively stable over time (Lavigne et al., 1998a and b; Reid, 1993; Webster-Stratton, 1991) and predict frequent and severe behaviour problems in adolescence and difficulties in adulthood (e.g. Hinshaw, Lahey & Hart, 1993; Patterson, DeBaryshe & Ramsey, 1989). Lahey et al. (1999), presenting 'an integrative causal model' of the development of antisocial behaviour, identify the age of onset of antisocial behaviour as 'a key element of the present model as the levels of influences from the multiple causal factors vary with the age on onset of antisocial behavior' (p. 669).

Fergusson, Lynskey and Horwood (1996) in a New Zealand study, found that children (aged 7-9) who showed early disruptive behaviours were 16 times more likely to have adolescent conduct disorder than children who did not display early disruptive behaviour. The 12% of children who showed a discontinuous history came from backgrounds in which levels of risk were intermediate between those of children who showed a persistent pattern of conduct problems and those who were consistently non-problem children. However, the early onset persistent antisocial behaviour type is identified as most reliably and significantly distinguished by indices of socioemotional history within the first 3 years (Aguilar, Sroufe, Egeland & Carlson, 2000). Observational and parent report studies have given correlations of between .68 and .77 for 2-year follow-ups of children aged between 2 and 9 years old (Campbell, 1994; Fagot, 1984; Vuchinich, Bank & Patterson, 1992).

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The Ontario Health Study (1983-1987) found the predictive accuracy of the antisocial behaviours of 4- and 5-year-olds for outcome at 8 and 9 years old to be generally limited but to be better for boys than for girls for externalising disorder and for conduct problems (Lipman, Bennet, Racine, Mazumdar & Offord, 1998).

What is the Background to and Extent of Disruptive Behaviours in North West Wales?

All indications are that the incidence and prevalence of disruptive behaviours in North West Wales are similar to the rest of Wales and the UK. A recent assessment of child and adolescent mental health services reported that in 1999, data on children with mental health problems was poorly recorded in all agencies in the area (Thalanany, 1999). This situation is now being addressed, but it means that figures are approximations.

The sources for the following background to and figures for the incidence and prevalence of disruptive behaviours, are the report mentioned above (Thalanany, 1999); the Office for National Statistics survey 'Mental health of children and adolescents in Great Britain' (Meltzer et al., 2000); the Child and Adolescent Mental Health Services consultation strategy document, 'Everybody's Business' (National Assembly for Wales, 2000), and the Health Care Needs Assessment (Wallace et al., 1997). The figures for the UK used in Everybody's Business are mainly drawn from Wallace et al., and estimates for figures in Wales and provisional extrapolations for North West Wales are based on these. Goodman (personal communication, 22 July 2000) states that the recent report on the Mental Health of Children and Adolescents in Great Britain (Meltzer, Gatward, Goodman & Ford, 2000) found that rates for Wales were

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comparable to the rest of Britain, so that it is reasonable to extrapolate from British figures to Wales in particular. The analysis was not repeated separately for North Wales because the sample was too small.

The Bangor Project for Children with Disruptive Behaviours which is to be described in the next chapters, was set in the predominantly rural area of North West Wales which comprises Anglesey, Gwynedd and part of Conwy unitary authorities. It covers an area of 3,860 sq. km. and supports a mainly agricultural economy. In 1996, the total population was 241,000, the population density being 62 per sq. km. There is high unemployment and average weekly earnings are lower than in the rest of Wales and England. The Welsh Digest of Local Area Statistics gives unemployment in North West Wales in 1996 as 10.5% and average weekly earnings as £248 (Thalanany, 1999). Other indicators of disadvantage are that in comparison to the rest of Wales, there are more children on the Child Protection Register, more receive free school meals, more have educational statements and there is a greater number of school exclusions. This information, together with housing amenities comparisons, is detailed in Appendix C. The Welsh Office report, 'A statistical focus on Wales: Women' (Welsh Office, 1998), indicates that throughout Wales in 1994, the percentages of women with and without partners in the 16-34 age group, were about equal. In 1995, the average age of mothers at each live birth was 27.7. In the 25-34 year age range, 11% took part in full- or part-time education in 1994/95 and 18% in 1995/96. North West Wales has the highest concentration of Welsh speakers, with 61.5% speaking Welsh (Census, 1991), and public services operate a bilingual policy.

More than 40% of young people are estimated to have recognisable risk factors for mental disorder; 30-40% may at some time experience a problem; and up to 25% (depending on environment and circumstances) have a disorder. Thalanany reported that around 7,000 children in North West Wales have mental health problems, of whom 1000-1200 are new cases seen in primary care and approximately 600 are

referred to Child and Adolescent Mental Health Services. Knapp (2000) reports that behaviour problems are the most frequent reason for referral to specialist child and adolescent mental health services, and conduct disorder is the commonest disorder in the 2-10 age group. Wallace et al. (1997) gave rates for conduct disorder at between 6.2 - 10.8% in 10-year-olds and 33 - 50% in clinic attendees. Estimated population figures for North West Wales for 1995 - 1997 are given in Appendix D, along with estimates for Conwy and Denbighshire, and North East Wales. Examples of the estimated prevalence of children's mental health problems in Wales by area, are given in Appendix E. For North Wales a figure of 7,353 with conduct problems is estimated at 10% of 2-10 year olds. The population of children aged 2-10 in North West Wales (based on 1997 figures) would be approximately 28% of that number, that is, around 2,060. Fewer than 10% of children with disruptive behaviours are referred to specialist child and adolescent mental health services (Hobbs, 1982).

The projections fit in order of magnitude with findings from the recently published survey commissioned by the Office for National Statistics data which clearly indicate that the rates overall are very similar in England, Scotland and Wales (Meltzer et al., 2000). M. Thompson et al. (1996) compared the prevalence of the mental health of preschoolers in a mixed urban and rural population. Using a sample of 1,047 families, they estimated that the rate of behaviour problems, at 13.3%, indicated similar rates to those obtained for urban children. The ONS survey was of 5- to 15-year-olds throughout the United Kingdom. The findings relevant to disruptive behaviours in North West Wales are summarised here. The survey looked at emotional, conduct and hyperkinetic disorders, and the use of health, social and education services. Around 10% of 5- to 15-year-olds have one or more type of mental disorder. The 10% includes some children who have more than one type of disorder. The prevalences found were that 4% of children have emotional disorders, 5% have conduct disorders and 1% have hyperkinetic disorders.

The prevalence of mental disorders was greater in children who were in single parent compared with two parent families (16% compared with 8%); in reconstituted families rather than those with no step-children (15% compared with 9%); in families with 5 or more children compared with 2 children (18% compared with 8%). The prevalence was greater if the parent who was interviewed had no educational qualifications compared with a degree level or equivalent qualification (15% compared with 6%); in families with neither parent working compared with both parents at work (20% compared with 8%); whose parents are social sector tenants compared with owner occupiers (17% compared with 6%); and in households classified as striving rather than thriving geo-demographically (13% compared with 5%).

The distribution of problems by age and sex is shown in Table 1 overleaf.

Table 1. Distribution of Children's Mental Health Problems by Age and Sex

	Boys	Girls
Overall rates	11%	8%
5-10 years	10%	6%
11-15 years	13%	10%
Conduct disorders	7.4%	3.2%
Emotional disorders	4.1%	4.5%
Hyperkinetic disorders	2.4%	0.4%

Source: National Assembly for Wales (2000). Child and Adolescent Mental Health Services, Everybody's Business. Consultation Strategy Document.

The ONS survey found a marked difference in the prevalence of mental disorders by social class and household income. The prevalence of child and adolescent mental health problems and disorders is clearly linked to deprivation. Table 2 gives examples:

Table 2. Social Class and Family Income

	Social Class V	Social Class II	Social Class I
Overall rates	15%	7%	5%
Conduct disorders	10%	3.5%	2.5%
Weekly income	Under £100	£300-399	Over £500
Overall rates	16%	9%	6%

Source: National Assembly for Wales (2000). Everybody's Business; Consultation Strategy Document.

The trend for all disorders was similar.

In terms of the social functioning of the family, the survey found that 47% of children assessed as having a mental disorder had a parent who scored 3 or more on the 12-item General Health Questionnaire. This is approximately twice the proportion of children with no disorder; children with a mental disorder were twice as likely to live

in families rated as having unhealthy functioning compared with children with no disorder: 35% and 17% respectively; and 50% of children with a mental disorder had at one time seen the separation of their parents compared with 29% of the sample with no disorder. The corresponding figures for problems with the police were 15% and 5%.

As regards the burden of mental disorder, about 33% of parents said that their child's problem made their relationships more strained; 87% of parents said their child's problems made them worried, and 58% felt that their child's problems caused them to be depressed.

Only 6% of children with conduct problems saw only their general practitioner. Most (71%) also saw a secondary level service provider such as a paediatrician, social worker or educational psychologist.

The Costs of Disruptive Behaviours

Recent health economic research studies have calculated the cost of services relating to conduct disorders. Most reported here are from the consultation strategy document, Everybody's Business (National Assembly for Wales, 2000). Figures for the studies were based on 1998 prices for 1998 service arrangements. The main areas costed were education, health, social services, social security benefits, criminal justice services and costs resulting from the impact of relationship difficulties. At present there are not costings for the wider psychological or social effects of conduct disorder.

Knapp (2000) suggests that early intervention between the ages of 0-5 could potentially save £500,000 over the lifetime of a 'patient' in terms of services that do not then need to be applied. This was based on a sample of children with conduct disorder, aged 3-8, whose families were participating in parenting groups at the Maudsley Hospital (National Assembly for Wales, 2000).

A twin study (N = 215) which costed crime, benefits, social care, health services, special education and relationship difficulties, identified three groups of children: a group with no disorder; a group with an emotional disorder, and a group with conduct disorder or a mixed disorder (n = 78). Costs relating to the conduct disorder group were somewhat higher than for the group with emotional problems (National Assembly for Wales, 2000).

Over time, this difference in cost appears to be accentuated. A longitudinal study based on 2,281 10-year-olds in inner London allocated a sub-sample of 182 to one of five groups: no problems at school and no clinical diagnosis (n = 65); emotional problems as rated by the teacher, but not clinically diagnosed (n = 32); emotional disorder as clinically diagnosed following interview with parent (n = 8); antisocial problems at school, as rated by the teacher (n = 61); and conduct disorder as clinically rated following interview with parent (n = 16). As adults, the group with conduct disorder showed more broken cohabitations; a greater incidence of depression and anxiety disorder; more alcohol problems; a greater likelihood of antisocial personality disorder; higher levels of criminality; and higher utilisation of services. By the age of 28, the group with conduct disorder was considerably more expensive than people who had been in the other categories (Knapp, 2000). Scott, Knapp, Henderson & Maughan (2001) estimated that by the age of 28, costs for individuals with conduct disorders were ten times higher than for those with no problems. They cite figures of £70K for individuals with conduct disorder, £24K for those with conduct problems, and £7.5K for those in a no problem group. Crime incurred the greatest cost in all groups, followed by extra education provision, foster and residential care and state benefits. Scott also found that approximately 12.5% of costs are borne by health services. When problems are co-morbid, costs escalate. A study comparing costs for 100 adults who had depression in childhood and 100 who had depression and conduct problems, found that those with depression and conduct disorder had more alcohol

dependence, more drug abuse, more personality dysfunction, higher conviction rates for criminal offences, and worse social and family adjustment. They incurred much higher costs than the group who had depression only (National Assembly for Wales, 2000).

It can be seen that successful interventions would achieve significant improvements to the quality of life for individuals and society, and also save considerable amounts of money. Thalanany (1999) reports that in 1998-99, the Child and Adolescent Mental Health Services budget was £9.63 per capita, that is for each of the 50,223 children aged 0-16 in North West Wales at the time.

Chapter Two

BANGOR PROJECT FOR CHILDREN WITH DISRUPTIVE BEHAVIOURS
(I) - METHODOLOGY AND MEASURES

Background to the Project

The review of the problem of disruptive behaviours in children outlined in

Chapter One, has indicated the scale and severity of the problem throughout the UK,

in Wales, and in North West Wales. It was against this background that the Bangor

Project for Children with Disruptive Behaviours was conceived and implemented.

It was hypothesised that a more intensive approach than that offered as

standard by the Child and Adolescent Mental Health Services might benefit children

who were particularly disruptive. The rationale was that child management strategies

could be introduced and rehearsed under controlled conditions, away from the

environment where the child's disruptive behaviours had developed and were

maintained. When different patterns were established, generalisation to home

conditions could be carefully supported and monitored. The intensive treatment was

very much behaviourally-based, in keeping with the approach already used by the

Service. This approach involves parents meeting with the therapist who teaches them

to use specific procedures to alter interactions with their child so as to promote pro-

social and decrease antisocial or deviant behaviour. It is explained, using examples,

how oppositional and aggressive behaviour is inadvertently developed and sustained

in the home by maladaptive parent-child interaction. Although not all therapists use

modelling and role play, many do use them to promote new learning experiences

based on direct training. Parents are systematically and progressively taught how to

establish rules, positively reinforce desired behaviour and decrease unwanted

behaviour by mild punishment. Hence, parents are trained to identify, define and

observe problem behaviours in new ways. The duration of sessions varies according to child dysfunction. For young, mildly oppositional children it might take six to eight weeks. For clinic-referred conduct disordered children, 12 - 25 weeks is more likely.

Hypotheses of the Project

The main hypotheses of the study were that children's disruptive behaviour would improve more as a result of intensive as opposed to standard treatment, and that observations of maternal behaviour at follow-up would reveal differences between the groups. Secondary hypotheses were that children's intelligence scores would improve in both groups, but more so in the group of children whose mothers received intensive treatment. In relation to distal parental factors, maternal mental health and stress levels and social isolation were expected to improve for all participants, but more so for the group receiving intensive treatment. The group receiving intensive treatment was also expected to express greater satisfaction with the service they received than those who received standard treatment.

Within the Project, the role of the Parent-Child Autobiographical Memory Test was being explored. In keeping with earlier findings (which are summarised later where this measure is described), it was expected that the Parent-Child Autobiographical Memory Test might be related to attendance for treatment; that it would both show an association with socioeconomic deprivation and be stable over time in this sample.

Methodology

Participants

The sample derived from all new referrals to a Child and Adolescent Mental Health Service of children with conduct problems aged 2-10 years, over a period of 20 months. If, based on the referral information, the child had no significant physical or intellectual deficit and the problem had been present for more than 6 months, the parent(s) were sent an Eyberg Child Behavior Inventory form (Eyberg, 1980). If scores for the child were in the top half of the clinical range on either the Intensity or the Total Problem scale, and the other score was within the clinical range, parents were invited to take part in the study.

Measures

The factors identified in Chapter One as important in the aetiology of disruptive behaviours are many and inter-related. It was considered important to assess as many as reasonably possible, because in assessing outcome from both interventions the groups needed to be well balanced. This also made it possible to look at what variables might be particularly salient in parents of children with extreme disruptive behaviours, in case this had treatment implications.

The screening instrument used to determine whether a family would be invited to participate was the Eyberg Child Behavior Inventory (ECBI; Eyberg, 1980; Appendix F). This is a 36-item scale parental report measure of behaviour problems in children aged 2-16 years. It is a list of the most typical problems experienced, based on data compiled over two years. Two dimensions are measured: i) Intensity score - frequency of occurrence from (1) 'never occurs' to (7) 'always occurs'; ii) Problem score - the parent is asked to identify for each item whether or not it is a problem (yes/no response). An intensity score of 127 or above or a problem score of

11 or above is an indication of a child with conduct problems (Eyberg & Ross, 1978). The cut off points for inclusion in this study (intensity score of 148, or problem score of 17) were chosen because they were the mean scores for children defined as having conduct problems in the following studies: Eyberg and Ross (1978), Robinson, Eyberg and Ross (1980) and Webster-Stratton (1984).

Reliability and validity: The scale has been shown to discriminate well between children with and without conduct problems (Eyberg & Ross, 1978, Eyberg & Robinson, 1982). Boggs, Eyberg and Reynolds (1990) found that ECBI Problem and Intensity scales were correlated with both the internalising and (particularly) externalising scales of the Child Behavior Checklist. Results supported the validity of the Eyberg Child Behavior Inventory as a concise measure of childhood disruptive behaviours.

A summary table of the measures used in the study is presented overleaf. The Project also assessed the training needs of health professionals via a health visitor questionnaire (Hutchings & Nash, 1998). Information on each of the measures, apart from the Health Visitor Questionnaire, follows.

Anti-social Child Behaviour

Child Behavior Checklist.

Anti-social child behaviour was the main focus of treatment in the Project. The Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1986a and b; 2 versions, ages 2-3 and 4-16 years; Appendix G.1) is designed to provide standardised descriptions of children's competencies and problems. One version of the Child Behavior Checklist covers ages 4 -16 (113 items) and another ages 2-3 (100 items). The Child Behavior Checklist comprises comprehensive scales for boys

Table 3. Measures Used in the Bangor Project for Children with Disruptive

Behaviours

Variable	Instrument
Family background	
Parent report/ researcher assessment	Personal Data and Health Questionnaire (PDHQ)
Parent report/ researcher assessment	SED 6 (derived from PDHQ)
Child measures	
Parent report	Child Behavior Checklist (CBCL; 2 versions, ages 2-3 and 4-16 years) Kendall's Self-Control Rating Scale (SCRS; primary school age) Conners Abbreviated Parent/Teacher Questionnaire (ages 3-17)
Teacher Report	Teachers Report Form (TRF; ages 5-16) The Preschool Behavior Questionnaire (PBQ; ages 3-6) Kendall's Self-Control Rating Scale (SCRS) Conners Abbreviated Parent/Teacher Questionnaire
Researcher Assessment	Wechsler Intelligence Scale for Children - Third Edition UK (WISC-III^{UK}; ages 6-0 to 16-11 (year-month) Wechsler Preschool and Primary Scale of Intelligence - Revised Edition UK (WPPSI-R^{UK}; ages 3-10-16 to 6-7-15 (year-month-day) Conners Abbreviated Parent/Teacher Questionnaire
Parent measures	
Self-report	General Health Questionnaire (GHQ 30 items) Beck Depression Inventory (BDI) Parenting Stress Index (PSI, Short form) Community Contact Questionnaire (CCQ) Parental Discipline (Arnold, O'Leary, Wolff, & Acker, 1993)
Researcher Assessment	Parent-Child Autobiographical Memory Test (PCAMT)
*Observation Measure	Brown Circles Task
*Measure of acceptability	Consumer Satisfaction Questionnaire

All the baseline measures were also taken at follow-up. At follow-up there was additionally a measure of satisfaction and an observational measure.
* Measures taken at follow-up only.

and girls aged 4 to 16. Standardisation for the 4-11-year old age range was based on samples of 581 and 619 respectively to obtain normative scores. A three point scale is used to rate items (0 = not true, 1 = somewhat or sometimes true, 2 = very true or often true). In this study the Checklist was self-administered although it can also be administered by an interviewer. The standardised externalising scores from the Checklist were chosen for assessing how mothers perceived their children's behaviour to have changed after the parent-training programme. Externalising behaviours comprise scores from the Delinquent and Aggressive Behavior subscales. Questions on delinquency cover: lack of guilt, bad companions, cheating, preferring the company of older children, running away, setting fires, stealing at home and when away from home, swearing, truanting, use of alcohol and drugs and vandalism. Questions on aggressive behaviour cover arguing, bragging being mean, demanding attention, destroying one's own things or those of others, being disobedient at school, being jealous, fighting, attacking peolple, screaming, showing off, being stubborn, having changeable mood, talking too much, teasing, showing temper, threatening others and being unusually loud. Standardised scores enabled a control for the age range in the study and allowed direct comparison with teachers' reports on the Teacher Report Form version of the Child Behavior Checklist (see later).

The Child Behavior Checklist for ages 4-16 is a comprehensive scale consisting of three sections:

A. Competence items (not scored for children under 5 years old) consist of:

1. The quality and amount of the child's involvement in hobbies, sports, clubs and chores is rated by asking parents to compare the child with others of the same age.

2. The parent's rating of how well the child gets along with siblings, peers, parents, plus how well child works alone.

3. The parent's rating of the child's performance in academic subjects.

B. The child's health; what troubles the parent most about the child; and what the parent thinks is the best thing about the child.

C. 113 Problem items (rated on a 3-point scale) divided into eight syndrome categories: Withdrawn, Somatic complaints, Anxious/depressed, Social problems, Thought problems, Attention problems, Delinquent behaviour, Aggressive behaviour.

The version for children from 4 to 16 provides separate norms (T scores) for children 4-5, 6-11 and 12-16 by sex.

Reliability and validity: Test-retest reliability on the externalising scores for the 4-18 Child Behavior Checklist was .93 over one week and .86 over two years. The measure is considered to have good content validity. Nearly all Child Behavior Checklist items discriminated significantly between demographically matched referred and non-referred children. In terms of construct validity, significant associations were found with comparable scales on the Conners Parent Questionnaire (Conners, 1973; correlation with Child Behavior Checklist externalising scale, r = .67), and the Quay-Peterson Revised Behavior Problem Checklist (1983; r = .52 and .88 with the socialised aggression and conduct disorder scales respectively). In terms of criterion-related validity, the Child Behavior Checklist scale scores discriminated between referred and nonreferred children. Both scales show good reliability and validity (Achenbach, 1991).

The Child Behavior Checklist for ages 2-3 is a shorter form consisting of two sections. Factor analyses of the CBCL/2-3 completed by parents of 398 2- and 3-year-olds yielded 6 syndromes: Social Withdrawal, Depressed, Sleep Problems, Somatic Problems, Aggressive, and Destructive. The first two were related to a broad-band internalising grouping, whereas the last two were related to a broad-band externalising grouping. Scales for the 6 syndromes, 2 broad-band groupings, and total problem score were constructed from scores obtained by 273 children in a

general population sample. There are two sections to this form which correspond to sections B and C for the version described for the older children:

B. The child's health; the parent's major concern about the child, and the best thing about the child.

C. 100 Problem items (rated on a 3-point scale) divided into the six syndrome categories presented above: Withdrawn, Somatic complaints, Anxious/depressed, Sleep problems, Destructive behaviour, Aggressive behaviour.

The Teachers Report Form (Achenbach & Edelbrock, 1986b).

This instrument was designed to be closely co-ordinated with the Child Behavior Checklist for assessing the school behaviour of pupils aged 5-16 (Appendix G.2). It was chosen to confirm parental report (i.e. correlate with the Child Behavior Checklist) and/or indicate the setting conditions for the child's disruptive behaviour. It consists of three sections:

A. Ratings of the child's academic performance as compared with typical pupils of the same age.

B. The child's health; the teacher's major concern about the child, and the best thing about the child.

C. 113 Problem items (rated on the same 3-point scale used for the Child Behavior Checklist) are divided into eight syndrome categories. Most of these items are the same as the those on the Child Behavior Checklist, but some are school specific. Norms (T scores) are provided for ages 6-11 and 12-16 for each sex. There are 8 scales in the TRF for boys aged 6-11: Anxious, Social Withdrawal, Unpopular, Self-Destructive, Obsessive-Compulsive, Inattentive, Nervous-Overactive, and Aggressive. The scales are further divided into Internalising scales (Anxious, Social Withdrawal), Mixed scales (Unpopular, Self-Destructive, Obsessive-Compulsive) and Externalising scales (Inattentive, Nervous-overactive and Aggressive).

Reliability and validity: The Teachers Report Form is well standardised and has adequate reliability (e.g. McConaughy, 1993) and validity (e.g. Brandon, Kehle, Jenson & Clark, 1990).

The Preschool Behavior Questionnaire (PBQ; Behar & Stringfield, 1974) was chosen for teacher report on younger children, that is, those who were under five years old, This was developed as a teacher-rating screening instrument to identify

children aged three to six with social problems in playgroups, nurseries or day care centres, in the context of their peer group. It is a modification of the Children's Behaviour Questionnaire (Rutter, 1967). It is a 30-item, 3-point rating scale (does not apply; applies sometime; frequently applies; scored 0-2). The scale yields a total score reflecting the child's overall level of adjustment, and three sub-scales:

i) Hostile/aggressive: fighting, destroying property, bullying, blaming others, kicking and biting others, does not share.

ii) Anxious-Fearful: Fear and tearful, crying, miserable.

iii) Poor Attention/Restlessness: Squirming, poor concentration, inattentive.

The Preschool Behavior Questionnaire discriminates between 'normal' and disturbed children. It has been standardised across a range of preschool children (N = 598), aged three to six. There is a clinical cut-off on the 'aggressiveness-hyperactivity-distractibility' score above the 70th percentile (Charlebois, LeBlanc, Gagnon & Larivee, 1994).

Reliability and validity: Inter-rater and test-retest reliability were demonstrated in a second study with 80 children. Rubin, Moller and Emptage's (1987) results support the reliability and validity of the PBQ for identifying children with social problems. There is a high correlation with other preschool behaviour scales (Rubin & Clark, 1983). Results from Hoge, Meginbir, Khan and Weatherall (1985) support the construct validity of the Hostile/Aggressive and Anxious/Fearful scores, in addition to the overall score. However they found no support for the validity of the Hyperactive/Distractible score, which is why it was decided additionally to use the Conners' measure (see later).

Child constitution

It was not within the remit of the Project to give a full picture of child constitution, but as part of relevant information about the child, a measure of self-control and a measure of intelligence were taken.

Kendall's Self-Control Rating Scale (SCRS; Kendall & Wilcox, 1979; Appendix H) was used as a check on Child Behavior Checklist scores from parents and teachers. The Self-Control Rating Scale assesses self-control in primary school children as rated by their teacher and parents. The scale consists of 33 items which are rated on a 7-point scale; ten items are descriptive of self-control and 13 are indicative of impulsivity, with the remaining 10 presenting both possibilities. The overall score is obtained by adding all raw scores. The Self-Control Rating Scale was developed both to identify problem behaviour patterns and as a measure sensitive to changes in behaviour brought about by treatment.

Reliability and validity: Results from Reynolds and Stark (1986) show high internal consistency reliability for the Self-Control Rating Scale (0.98) and test-retest reliability (0.84). Although originally designed for primary school children, validity studies have covered ages 3-17. The scale has good criterion-related validity (Robin, Fischel & Brown, 1984). In a validation study of 110 normal 3rd-6th graders (8-11 years), the Self-Control Rating Scale correlated significantly with latency and error scores from the Matching Familiar Figures Test, the Q score from the Porteus mazes, and behavioural observations. Discriminant validity was demonstrated by a very low and non-significant correlation with IQ and Mental Age. Significant differences were found on the SCRS, Matching Familiar Figures Test latencies, and behavioural observations (Kendall & Wilcox, 1979).

Hyperactivity. In order to establish the incidence of hyperactivity in different settings, the Conners Abbreviated Parent/Teacher Questionnaire (Conners, 1985; Appendix I) was chosen for use by parents, teachers and interviewers. This 10-item hyperactivity index, used with children from 3-17, consists of the most highly loading symptoms from the factor scales from the Conners Parent and Conners Teacher Rating scales. These have adequate reliability and validity (Conners, 1985) and a table of norms. The clinical cut-off for hyperactivity is a t value above 1.5 standard deviations (available from tables).

The hyperactivity dimension on the Preschool Behavior Questionnaire is the least validated (Hoge et al., 1985), so it was anticipated that the Conners measure could be used as a check on that measure.

Children's intelligence was assessed using the Wechsler Intelligence Scale for Children - Third Edition UK (WISC-III[UK], Weschler, 1991) and the Wechsler Preschool and Primary Scale of Intelligence - Revised Edition UK (WPPSI-R[UK], Weschler, 1990).

The Project included assessment of the children's baseline and post-treatment intellectual functioning because the literature reports associations between academic achievement or abilities and disruptive behaviours. It was hypothesised that having a pattern of disruptive behaviours lessens a child's opportunities to engage in tasks which promote intellectual development. The purpose of the scales is to assess a variety of cognitive abilities in children. The WISC-III[UK] is used with children aged 6-0 to 16-11(year-month) and the WPPSI-R[UK] with children aged 3-10-16 to 6-7-15 (year-month-day)

It was anticipated that the attention span of some of the children in this study would be limited, and it was therefore decided to use short forms (five subtests) of the Weschler scales. The choice of subtests was in order to provide two sets of scores

each for Verbal and Performance factors. Mazes were additionally chosen as a measure of impulsivity. The subtests are common to both the WISC and the WPPSI and assess the same abilities on both tests; they include some of the abilities that may be impaired in children with disruptive behaviours (e.g. social judgement, attention span, planning). A description of the subtests follows (in order of administration).

WISC-III^{UK}

Picture Completion: The child is shown a set of colourful pictures of common objects and is asked to name or point to the important part that is missing from the picture. The child must respond within a 20-second limit. This subtest focuses on visual discrimination and memory, but may also assess impulsivity.

Block Design: The child is shown a two-dimensional picture of abstract design and asked to replicate the design using two-colour cubes. This subtest assesses visual-motor co-ordination and perceptual organisation. It may also test logic and reasoning.

Vocabulary: A series of words of increasing difficulty are read out to the child, who is asked to give verbal definitions. This subtest was designed to test word knowledge, but may also tap memory and concept formation.

Comprehension: The child is asked to respond verbally to a series of questions about everyday problems or social rules and concepts. Responses may reflect the child's level of development of conscience or moral sense.

Mazes: The child is asked to solve a series of printed mazes by drawing a line from the centre to the exit without entering any blocked passages or crossing the walls. The mazes get increasingly difficult and the task is timed. This is a supplementary test which is not included in the total score. It was used here because it assesses planning ability and perceptual organisation and has been suggested as a good measure of impulsivity (Kendall & Wilcox, 1979).

WPPSI-R^{UK}

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The descriptions of and rationale for using the subtests are the same as for the WISC with the following exceptions:

Picture Completion: There is no set maximum time limit for the child's response, but the child is allowed a minimum working time of 30 seconds for each item. The pictures are in black and white.

Block Design: The first eight designs are block models rather than two-dimensional pictures.

Vocabulary: The first three items are pictures of objects which the child is asked to name. The remaining items are orally presented words which the child is asked to define verbally.

Comprehension: This contains 15 questions, 6 from the WISC, with minor changes in wording.

Mazes: The task does not differ in principle from the WISC, but the instructions are adapted for younger children.

A total score for Verbal ability is calculated by adding scores for Comprehension, Verbal and Digit and for Performance ability by adding Block Design, Picture Completion and Maze. The scores (without those from Digit and Mazes) may be converted into Developmental Quotients, which is a full scale estimate, as described by Sattler (1990). The reliability of both these scales is excellent (Sattler, 1990).

Social Context

Social context was measured using the Personal Demographic and Health Questionnaire which was administered by the interviewer (Appendix J). This questionnaire covers a wide range of variables implicated as risk factors for children with disruptive behaviours. Health items include the mother's health during pregnancy and the birth of the child, and the child's health and development. From

responses to the demographic questions is derived a scale of socioeconomic disadvantage.

Socioeconomic disadvantage (SED 6; Hutchings, 1996b). The socioeconomic disadvantage scale was developed as a convenient single measure of socioeconomic status for purposes of description and analysis in comparatively small samples. Scores are derived from six factors drawn mainly from Dumas and Wahler (1983) and Rutter and Quinton (1977) and also reported more recently in Meltzer et al. (2000). These are:

Employment status of primary provider - earned income or welfare benefit.

Marital status - single or married/cohabiting status.

Number of children - up to and including two, or three or more (Brown & Harris, 1978).

Maternal education - up to or beyond GCSE standard.

Housing circumstances - quality, crowding and security of tenure.

Area of residence - presence or absence of high crime and social problem rates.

Each of the six items is given a 1 or 0 score, summed into an index of socioeconomic disadvantage (SED 6).

Distal parenting factors measured included depressed mood, more general mental health, parenting stress and social isolation.

Depressed mood. The Beck Depression Inventory was used to assess depressed mood (BDI: Beck, 1961; Beck et al., 1961; Beck, Steer & Garbin, 1988). The BDI is a scale which was designed to determine the severity of depression when it has been diagnosed. The full version 21-item version was used for comparability with other studies. Each of the statements represents a characteristic symptom or

attitude of depression. These are sadness, pessimism or discouragement, sense of failure, dissatisfaction, guilt, expectation of punishment, self-dislike, self-accusation, suicidal ideation, crying, irritability, social withdrawal, indecisiveness, body-image distortion, work retardation, insomnia, fatigability, anorexia, weight loss, somatic preoccupation and loss of libido. Examples of the statements are:

0   I am not particularly pessimistic or discouraged about the future.

1   I feel I have nothing to look forward to.

2   I feel that I won't ever get over my troubles.

3   I feel that the future is hopeless and that things cannot improve.

The respondent selects the statement from the group which best describes the way that she or he has been feeling during the past week. The number of symptoms is viewed as correlating with the intensity and severity of depression. Normative data suggest the following categories of severity level: normal 0-9; mild 10-15; mild-moderate 16-19; moderate-severe 10-29; severe >29.

The BDI has been used extensively in studies of mothers with young children and is regarded as one of the best self-report measures of depression (Webster-Stratton & Spitzer, 1991). Since its development the scale has been given to many hundreds of samples other than the groups undergoing psychotherapy for depression on which it was based.

Reliability and validity: Split-half reliability was reported as .86 (Beck, Steer & Garbin, 1988). Split half reliability was also assessed using a group of adults by Weckowicz et al. (1967); these authors reported a lower figure of .53. Beck et al. (1961) reported consistent relationships in test-retest, between the instrument and clinical ratings at 2- to 5-week intervals. Reliability coefficients were above .90 (Beck et al., 1961; Beck, 1970). The scale correlates well with clinicians' ratings of severity of depression and with other depression scales. Beck et al. (1961), on the basis of 226 hospital out-patients and admissions, and 183 patients in a replication

group, tested the BDI against independent psychiatric diagnoses made by four psychiatrists. Their agreement with the scale was 56 per cent. Correlations of .66 were obtained between the BDI and Depression Adjective Check Lists and of .75 between the BDI and the Minnesota Multiphasic Personality Inventory (Beck, 1970). The mean correlations with the Hamilton Scale and clinical ratings for psychiatric patients were over .70 (Beck, Steer & Garbin, 1988). An extensive review of the literature on the reliability and validity of the scale (Beck, Steer & Garbin, 1988) reported that a meta-analysis of the BDI's internal consistency estimates yielded a mean coefficient alpha of .86 for psychiatric patients and .81 for non-psychiatric respondents. Sensitivity is reported at .76 - .92 and specificity at .64 -.80

General maternal mental health was measured using the General Health Questionnaire (GHQ-30; Goldberg, 1978). This is the most widely used screening device for general psychiatric disorder in adolescents and adults in the UK. It assesses people's current in relation to their usual state (most people see their usual state as a normal state; Goldberg & Williams 1988). The GHQ was chosen for this study as a broad measure of psychiatric morbidity. It is designed to be self-administered. It was not intended to be used for clinical diagnoses, nor does it detect chronic problems, being limited to states of relatively short duration (all items cover the timespan of the last few weeks).

The GHQ consists of a list of statements asking respondents to compare their recent experience to their usual state on a 4-point scale of severity (better than usual, same as usual, less than usual, much less than usual). Each item is a phrase referring to feelings or behaviour, preceded by 'Have you recently?', this being defined as within the last few weeks. The Likert scale consists of 0 or 1 (0-0-1-1), following the sequence of response categories across the page. Some items are negative, others

positive. The overall GHQ is the sum of the item scores. This scoring scale is straightforward and avoids middle-user response bias.

Examples are: Over the last few weeks have you:

been able to concentrate on whatever you're doing?	Better than usual	Same as usual	Less than usual	Much less than usual

lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual

Reliability and validity: Split-half and test-retest correlations have been carried out on the GHQ with good results. Split-half reliability has been carried out with 853 completed questionnaires, and the correlation achieved was .95. Internal consistency, using Cronbach's alpha, has been reported in a range of studies with correlations ranging from .77 to -.93. Test-retest reliability correlations have been reported ranging from .51 to .90, the correlations being higher with clinically defined groups with a high prevalence of disorder (Goldberg & Williams, 1988). A problem posed by test-retest reliability is one of distinguishing between true change and unreliability. Goldberg and Williams (1988) state that the definitive test-retest reliability study of the GHQ remains to be done. Using standardised psychiatric interviews as a gold standard, reported sensitivities range between .55 and 1, and specificities between .75 and .99, depending on the choice of threshold score (e.g. Vieweg & Hedlund, 1983). The GHQ-30 has been the most widely validated of the available versions. There is good evidence that assessments of the severity of psychiatric illness are directly proportional to the number of symptoms reported on the GHQ (Goldberg & Huxley 1980). It has been found to correlate well with the BDI and the Zung depression scales (e.g. Cavanaugh, 1983; Henderson, Byrne & Duncan-Jones, 1981). It has good content and construct validity.

Goodchild and Duncan Jones (1985) have developed an adapted scoring method (so the score for negative items becomes 0111, and for positive items 0011).

Scores are more normally distributed and the scale is considered a more sensitive indicator when used over time. Goldberg and Williams (1988) suggest that until it is further established, this method should be used in addition to conventional scoring.

The Beck Depression Inventory and the General Health Questionnaire indicate an individual's levels of depressed mood and general mental health. In order to specify the stresses which are more directly attributable to the parenting role, and which should more immediately reflect the impact of parent training, a measure of parenting stress was chosen.

The Parenting Stress Index (PSI Short Form 6; Abidin, 1990; Appendix K). screens for and assesses the stress experienced by the respondent in direct relation to her/his role as a parent with children up to 12 years of age. Normative data for the full scale were based on 2,633 mothers of children aged 1 month to 12 years and 200 fathers of children aged 6 months to 6 years. There are 36 items, rated on a 5-point Likert type scale, pertaining to the child's characteristics and the parent's perception of these characteristics. Perceptions of the child's characteristics are associated with respondents' expectations of being a parent and feelings of being rewarded by caring for the child. The three subscales are Parental Distress (PD), Parent-Child Dysfunctional Interaction (P-CDI) and Difficult Child (DC). Hence the Total Stress score reflects reported stresses in the areas of personal parental distress, stress derived from the parent's interaction with the child and stress from the child's behavioural characteristics. A total score of 90 is considered a clinically significant level of stress. The Parental Distress subscale determines the distress a parent is experiencing in his or her role as a parent as a function of personal factors directly related to parenting. This factor includes items of Role restriction, Isolation, and Spouse subscales and also the depression subscale of the full Parenting Stress Index.

The depression subscale indicates a parent's emotional availability to her child. The Parent-Child Dysfunctional Interaction scale focuses on the parent's lack of satisfaction relating to interaction with the child, her perception that the child does not meet the parent's expectations and is a negative element in the parent's life. The Parent-Child Dysfunctional Interaction Scale contains items which derived from the Acceptability, Reinforces Parent, and Attachment subscales of the full Parenting Stress Index. The Difficult Child scale focuses on behavioural characteristics of children that make them easier or more difficult to manage, both by temperament and learned patterns. Eyberg, Boggs and Rodriguez (1992) found that Parenting Stress Index Child Domain (CD) and Parental Distress (PD) scores correlated significantly with Eyberg Child Behavior Inventory Intensity and Problem scores. The Child Domain scores were significantly more highly correlated with Eyberg Child Behavior Inventory scores than were the Parenting Distress scores. The short form of the Parenting Stress Index includes a defensive responding scale which comprises 7 items of the scale. The scale was derived from the Marlowe-Crowne Social Desirability Scale (Lafiosca & Loyd, 1986) and assesses the extent to which the respondent approaches the questionnaire with a strong bias to present the most favourable impression and to minimise indications of stress in the parent-child relationship. An example is 'Having a child has caused more problems than I expected in my relationship with my spouse (male/female friend)'. Parents scoring low on this scale may be overcontrolled and unable, in this context, to admit to the stresses of caring for their child.

Kazdin (1990b) found that those mothers of children with disruptive behaviours who ended treatment prematurely reported greater levels of distress in the Child Domain and the Parent Domain on the full scale Parenting Stress Index than those who completed treatment. Using the full scale, Holden and Ritchie (1991) found that maternal stress was the most important predictor of children's behaviour

problems (measured on the Child Behavior Checklist) in violent families.

Reliability and validity: Alpha coefficients reported by Abidin (1995) for the full scale are: Parental Distress (PD), .87; Parent-Child Dysfunctional Interaction (P-CDI), .80; Difficult Child (CD), .85; total stress, .91. Test-retest figures are given as Parental Distress (PD), .85; Parent-Child Dysfunctional Interaction (P-CDI), .68; Difficult Child (CD), .78; total stress, .84. Correlations between the full scale and the PSI/SF total scores for 530 subjects were high at .94. At the latest publishing date (1995) the author states that the empirical validity of the PSI/SF model has not been fully established. However, clinical experience and other research on the same conceptual variables suggest that the model is viable, and Abidin anticipates that because it is a direct derivative of the full-length Parenting Stress Index that it will share in that measure's validity.

Community Contacts Questionnaire (Hutchings, 1996b; Hutchings, Midence & Nash, 1997). The Community Contacts Questionnaire (Appendix L) was used to assess the mothers' social support. It was adapted from the Community Interaction Checklist (Wahler, 1980). The questionnaire assesses the amount and quality of contact mothers have with adults other than household members, and lists the sorts of topics discussed with these people. Four sections record information about contacts with relatives, friends, welfare agencies or helping professionals and other people. For each of these categories, respondents rate on a Likert-type scale how often they have contact, from daily to less than six monthly. They also rate on a 5-point Likert-type scale, the quality of contacts in terms of how supportive or critical these contacts are of their lifestyle in general and of their management of their children in particular. The scores from the sections on friends and relatives were the most informative, and were used in this study. Hence, there was a maximum score of 20 for those who rated both friends and relatives as very supportive of their lifestyle in general and their

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management of their children.

An insularity index may be calculated from the information on the Community Contacts Questionnaire, following Dumas and Wahler's (1983) criteria. If a parent has less than one third of her social contact with friends and at least one third of her social contacts were rated as neutral or negative in valence, she is considered an insular parent (See Appendix L for how the index is calculated.)

Studies of the validity and reliability of this scale are in progress.

Parenting: Discipline Practice and Observations of Parents' and Children's Behaviour

Reported discipline practice. The Parenting Scale, a self-report discipline measure, was used to assess parenting practice (Arnold et al., 1993; Appendix M). This rating scale measures dysfunctional discipline practices in parents of young children (1 1/2 to 4 years). It consists of 30 items on a 7-point Likert type scale. Totals of individual items (scored 1-7 or 7-1) are calculated to identify three stable factors of dysfunctional discipline style: laxness, overreactivity and verbosity. A score for laxness is calculated from 11 items; overreactivity from 10 items, and verbosity from 7 items. Four additional items not included in the factor scores, are added to give a total score. Respondents fill in the circle that best describes her or his style of parenting during the past two months. For example:

> At meal time . . .
> I let my child decide   0--0--0--0--0--0--0 I decide how how much
> to eat   much my child
>   eats

The dysfunctional strategy appears on the right side as often as the left.

Correct answers are not always obvious. For example, a respondent might consider that making a child tell her why he or she did something is an effective strategy, but this is a mistake, and saying 'no' or taking some other action is the effective strategy. The scale was standardised using a total sample of 168 mothers

(mean age 31.2 years) of 98 boys and 70 girls (mean age 24 months). Sixty-five of these mothers had come to the clinic where the research took place, because they could not manage their children.

Reliability and validity: Alpha coefficients for internal consistency were given as laxness, .83; overreactivity, .82; verbosity, .63; and total, .84. Test-retest reliability on 22 mothers over 2 months: laxness .83; overreactivity, .82 verbosity .79 and total .84. Arnold et al. reported that Parenting Scale scores correlated significantly with observational measures of dysfunctional discipline and child misbehaviour. Mothers of clinic children reported more dysfunctional parenting than did mothers of nonclinic children. Parenting Scale scores were related to maternal ratings of child behaviour and marital discord. Total scores correlated with Child Behavior Checklist externalising scores ($r = .53$, $p < .05$, $N = 77$). The correlations of the subscales with externalising child behaviour were: laxness, $r = .41$, overreactivity, $r = .54$, and verbosity, $r = .22$ ($ps < .05$, $N = 77$). However, Arnold et al. combined clinic and non-clinic groups, used only 24-48-month-old children and used unstandardised externalising Child Behavior Checklist scores. Total and subscale scores correlated with the short form of the Locke-Wallace Marital Adjustment Test (SMAT; Locke & Wallace, 1959; rs -.35 to -.53, $ps < .05$, $N = 63$). BDI scores correlated significantly only with the overreactivity factor ($r = .3$, $p < .05$; $N = 64$). The authors advocate replication of the validity findings before broad application of the scale because some results are based on small sample sizes. The Scale was not normed by socioeconomic status nor culture. Further validity of the Parenting Scale has been reported by Irvine, Biglan, Smolkowski and Ary (1999) who used it to measure the discipline practices of 298 parents of middle school children (mean age 12.2, SD = 1.2) identified as being at risk for disruptive behaviours. They found the overreactivity factor to be more robust than laxness in that overreactivity was more strongly correlated with other parenting measures, but both factors correlated with

parents' behaviour, the Beck Depression Inventory, Child Behavior Checklist scores and Parent Daily Reports.

There was sufficient evidence to consider the Scale suitable for this study.

Observational Measure. There is ongoing debate about the validity of self-report measures. Observational assessments provide validity for such measures and have been shown to be better predictors of longer term outcome (Patterson & Forgatch, 1995). The observational task used in the Project was the Brown Circles task, originally devised by Tuteur, Ewigman, Peterson and Hosokawa (1995) to differentiate between abusive and non-abusive mothers. This was coded using Cerezo, Keesler, Wahler and Dunn's (1986) Standardized Observation Codes (SOCIII-B; Cerezo, Keesler, Wahler & Dunn, 1986; Wahler, House & Stambaugh, 1976).

The Brown Circles task takes ten minutes and can easily be administered and coded in any setting. Mother and child sit at a table and the mother is asked to help the child to draw circles using a brown wax crayon, but without touching the crayon herself. This activity has little intrinsic interest and hence could be expected to elicit the types of child and maternal behaviours which occur under more normal circumstances, such as asking the child to do something rather uninviting and persisting with it when it becomes boring. It has the advantage of being unfamiliar and so assesses parental strategies for keeping the child engaged, without there being any history for that particular task.

The Standardized Observational Codes are a well-established and reliable coding system for use with conduct-disordered populations. The Standardized Observational Codes system covers all the aspects suggested by the literature and by clinical experience which could be anticipated to emerge within this particular task. It offers wide coding of nonverbal and positive behaviours, and training videos are

available. The Standardized Observational Codes were developed specifically for research into childhood conduct problems and allow a fine-grained analysis of structural relationships comprising family interchanges. They were designed for use in the home, but have also been used in clinical and school settings. The codes are mutually exclusive categories, aimed at providing real time descriptions of behavioural interactions. The system provides for recording the components of frequency, duration, sequence and valence (positive, neutral or negative) in family interchanges with a conduct-disordered child. In their use to date, recordings have taken place in as naturalistic a setting as possible, with some restrictions such as, for example, no television, to encourage interchanges. Scoring is segmented into 15-second intervals, which allows the ongoing interaction between mother and child to be examined, together with the frequency and valence of each category.

The child and maternal codes from the Standardized Observational Codes system were used and examples are to be found in Appendix N. There are 17 observational codes for maternal behaviours, for which there are four main categories: Social attention or approach (MA), Instruction (MI), Compliance (MC), and Opposition (MO). Each may be coded as aversive (-), neutral ( ) or positive (+) according to their verbal or gestural content, or the voice quality of the speaker. The remaining codes are non-response codes. These are reflective listening and general and specific maternal approach. Professor Wahler recently added a maternal participation (MPt) code to indicate instances when there are social exchanges which do not involve conversation, for example helping the child with homework. This code was adapted in collaboration with one of Professor Wahler's team, and used to denote those times when the mother is being silently responsive to the child, watching the child or his/her performance on the task. Maternal participation was differentiated from times when the mother touched the paper or crayon, which was coded as work (MW).

In addition to the Standardized Observational Codes, the Mother-Child Interaction Scale was also used (Appendix O). This was developed by Tuteur et al. as a global rating of maternal behaviours and was designed to accompany their coding of the Brown Circles task. The Mother-Child Interaction Scale is composed of eight qualitative categories, each of which is scored on a 3-point scale from negative to positive. Its independent discriminative accuracy has not yet been established (Tuteur, Ewigman, Peterson & Hosokawa, 1995).

Maternal Observation Skills

The Parent-Child Autobiographical Memory Test (Appendix P; Hutchings, 1996b; Hutchings, Nash, Williams & Nightingale, 1998) was developed as a version of the cue-word Autobiographical Memory Test of Williams and Broadbent (1986) both in terms of its construction and its administration. It consists of ten cue words taken from Brittlebank, Scott, Williams and Ferrier (1993), five of which are positive in emotionality (pleasant) and five negative in emotionality (unpleasant). The parent is requested to recall a specific event in the child's life which is associated with that word. The mean number of responses is recorded together with the time taken to respond. A prompt is given if there is no response or if the response refers to a general memory rather than a specific event. The most reported score, as with the Autobiographical Memory Test, is the total number of specific responses without prompts given within 30 seconds. This gives a measure of specificity of recall. Separate scores are generated for negative and positive words both with and without prompts. Scholey (1997) compared Parent-Child Autobiographical Memory Test and Autobiographical Memory Test scores of 12 mothers of preschool children, who did not appear to have behavioural difficulties, and found high correlations between the two tests, although numbers of specific responses on the Parent-Child Autobiographical Memory Test were significantly lower.

The rationale behind considering the Parent-Child Autobiographical Memory Test as a possible indicator of maternal observation, was that parental ability accurately to describe their child's behaviour in specific terms (Wahler & Hann, 1984; Wahler & Sansbury, 1990), and ability to recall specific events in their child's life, might be two aspects of a common process. The accuracy of parental observation and attending predicts outcome in parenting programmes, and mothers with poor initial observational skills who succeed in such programmes also develop more accurate observational skills (Wahler, 1980; Wahler & Dumas, 1984; Wahler & Dumas, 1989). Hutchings et al. (1998) reported that parents who did not attend for treatment for their preschool children who were referred with behaviour management problems, had much lower Parent-Child Autobiographical Memory Test scores than those who did attend. It was hoped that using the Parent-Child Autobiographical Memory Test in this study would clarify its role as a possible predictor of outcome from parent training.

A more recent project, conducted after the original Bangor Project for Children with Disruptive Behaviours reported here, examined the role of the Parent-Child Autobiographical Memory Test in relation to maternal observation (Hutchings, Smith & Gilbert, 1999). Mothers of referred children scored their own child's videotaped behaviour as good or bad. This was compared to professionals' scoring and a bias established. No relationship was found between mothers' bias in coding their referred children's behaviours and their Parent-Child Autobiographical Memory Test scores. However, undercoding of negative behaviours related to the mothers' scores on the Means-Ends Problem-Solving task (Platt, Spivack, & Bloom, 1975) and to scores on the Spot-the Word Test (Baddeley, Emslie & Nimmo-Smith, 1993).

Consumer Satisfaction Questionnaire (Hutchings, 1996b; Appendix Q).

This questionnaire is a 16-item, 5-point Likert type scale. Parents are asked to rate their level of satisfaction regarding all aspects of being involved in treatment according to general arrangements and the process of and outcome from therapy. Scoring is based on totals of ratings from 1 to 5 for all questions, omitting those for satisfaction with the physical surroundings in the waiting or consultation room, the time of day for the appointments and the frequency of appointments.

This large number of measures tapped a variety of the constructs relating to disruptive behaviours. Completing the eight measures was demanding for parents and often involved more than one session. It is estimated that although the minimum time for the initial battery of tests would be about 40 minutes, they could take up to 90 minutes without the observation task. This may conceivably have deterred some mothers from further participation in the project.

Procedures

An assistant psychologist from the Child and Adolescent Mental Health team visited the qualifying parents at home and explained that the Project was comparing two forms of treatment. Of the 50 who qualified to take part in the Bangor Project for Children with Disruptive Behaviours, 8 mothers of boys declined to take part, one of them reporting that the problem had been a food allergy and had been resolved. Forty-two mothers took part in the study. One mother told the interviewer that she had given false information because of the presence of her partner, so her data were removed.

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Allocation of participants to standard or intensive treatment

The research design originally involved restricted random allocation of children to three age groups matched by number, age and sex. However, agency referral procedures changed within the timespan of the Project, resulting in a reduction in numbers of accepted referrals. The Project was funded for a specific time, and facilities and therapist time had already been organised. So when it became apparent that the planned procedure could not be carried out successfully, the most recently qualifying participant was allocated to the next slot for intensive treatment as it became available. The last family to receive intensive treatment was allocated in June 1997 and a further three participants for the standard treatment group were recruited by August, 1997.

Therapy Programme

Intensive treatment.

Families allocated to the intensive treatment group within the Bangor Project for Children with Disruptive Behaviours, were visited at home before spending three days (on a daily basis from 10 am - 3 pm) at the Child and Family Research Centre which was established by Gwynedd Community Health Trust. The Centre provided a domestic environment in a house equipped as a family home. It had a one-way mirror for observation, video-recording and bug-in-the-ear facilities. On the first day families were observed in a variety of situations such as game playing or having a meal. This was followed by two further days of behaviourally-based intervention. Videotaping of parts of all three days was used in giving feedback to mothers. Leaflets on aspects of parenting were given to parents to use at home. An assistant psychologist took care of the child during discussions, and she looked after other children in the family if this was necessary.

Standard treatment.

Families allocated to the standard group received the standard Child and Adolescent Mental Health service which was also behaviourally based, as confirmed by later therapist report (Appendix V). There is less information on the format of the delivery of standard treatment, but it was mainly based in the home. One therapist reported using video feedback with her family.

Therapists

Intensive treatment was delivered by two consultant clinical psychologists who worked together while the therapy programme was being established, but then worked separately. Towards the end of the project two additional clinical psychologists received training from one of the two main therapists during the intensive phase and then each additional clinical psychologist undertook the home based follow-up with two families.

Standard treatment was delivered by staff from all the professions represented in the team. Of the 19 children, three were not seen. Four families were seen by more than one therapist (two by a child psychiatrist and a social worker, one by a clinical psychologist and a child therapist and one by a clinical psychologist and a social worker). The remaining 12 were seen by one therapist: nine by specialist social workers, one by a child psychiatrist, one by a clinical psychologist and one by a child therapist.

Interviewers

Interviews were conducted by two psychology assistants. One completed most of the baseline interviews and the other conducted most of the follow-up interviews. The person who completed the remaining couple of follow-up interviews was the assistant who helped out with families who had intensive treatment in their

initial few days. It is possible that this may have had some influence on follow-up measures although at baseline she had little direct contact with the mothers she interviewed nine months later.

Coders

Coding of the follow-up observation task was done by Melissa Herring from Professor Wahler's team in Tennessee, and a final year undergraduate psychology student who was employed by the Project over the summer of 1997 and was trained by Ms Herring. Reliability was performed by a graduate Research Assistant.

Research planning and data management

This author was responsible for revising the original plan of the research, checking the appropriateness of the measures and adding the measures of attachment and discipline. She supervised and contributed to the recording, coding, entry and verification of data, for example by using range checks. She planned and performed the analyses in consultation with statisticians. Before the last data were collected she moved to other employment, but the analyses, presentation and interpretation of the findings reported in the following chapter, are her own.

Chapter Three

BANGOR PROJECT FOR CHILDREN WITH DISRUPTIVE BEHAVIOURS
(II) - RESULTS AND DISCUSSION

Results

Reliability of Scoring

All the self-report forms were double scored between this author and two undergraduate psychology assistants. Any discrepancies were settled between scorers or with reference to the assistant psychologist who had given the interviews.

Reliability on 25% of the observational data comprised nine 10-minute sections of video chosen at random from six mothers with their children in the intensive group and three in the standard group. A global reliability rating of the categories used from the Standardized Observational Codes gave a kappa of .7[1].

General Statistical Procedures

The sample of mothers came to parent training because of their children's extreme externalising problem behaviours. Given the typical profile of mothers of such children, it would be expected that some maternal scores would be extreme. For this reason it was decided not to remove outliers because these could not be considered atypical.

Prior to analyses, data were examined for suitability for the test chosen. For example, for the parametric tests this involved checking for normal distribution using

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[1] Kappa was calculated by the Research Assistant who was in post when the last data were collected. This author was not able to repeat this to check the figure and obtain a p value or confidence intervals, because reliability data for individuals could not be found after two office moves. Pearson reliabilities on the relevant categories are presented in Appendix U.

Q-Q plots; for correlational analyses, coefficients were calculated after examination of scatterplots for linearity.

Missing Data

Occasionally it was not possible to assess some measures, for example when a child would not comply with the intelligence testing procedures, or a parent had missed an item on a questionnaire and could not be contacted to complete it. Where the instrument gave clear instructions for treating missing data, these were followed; otherwise such omissions remained.

<div align="center">Attrition</div>

Using an intent to treat approach was mooted, so as to include those participants who did not complete treatment (Bowling, 1997; Pocock, 1983). This would have meant substituting baseline scores as the follow-up measure, using the group mean at follow-up for the missing scores, or projecting scores using values on other variables in a regression analysis. There were three main considerations which led to not adopting this approach and excluding missing follow-up scores from analysis. Firstly, this study was conducted to assess the differential effects of standard and intensive treatment, and attrition was considered to be an important clinical outcome and was examined in its own right. Secondly, an extreme sample had been selected, and as such, participants would be expected to have atypical scores on many measures. Thirdly, in a less extreme clinical sample from a similar locality, it was found that child behaviour scores of referred children did not improve without treatment. However, maternal ratings of depressed mood improved as much for mothers who had not received parent management training as for those who did (Hutchings, 1996b) If it could have been assumed that a similar pattern would have emerged in this study, substituting baseline data as follow-up scores would have been

appropriate for the main measure of child behaviour. However this procedure could not have been followed for the measure of depressed mood, where substituting the group mean would have been the procedure to follow. Given these considerations, these data were treated as missing values.

<u>Sample Characteristics and Treatment Profile</u>

The Eyberg Child Behavior Inventory scores for those who participated placed the children in the upper part of the clinical range on that measure. (This was in accordance with the selection criteria for the study. The mean intensity score was 174.4, SD = 24.4, range 94 - 236; and the mean total problem score 22.9, SD = 6.3, range 6.0 - 34.0).

Participant and demographic information is given in Table 4. There were 35 boys and 6 girls with a mean age of 73 months (SD = 24.2). The number of children in the households ranged from one to six, the most frequent number being two (n = 15) or three (n = 16). Parental data were gathered from 40 biological mothers and one foster mother. Their mean age was 28.9 years (SD = 5.3). The one foster child came from the only household with six children. The child had been with the family for six years. Twenty seven mothers lived with a partner, 14 were single parents. Twenty seven were on some form of benefit and 14 were waged and receiving no state benefit. Most mothers (n = 35) had received formal education up to the age of 16, and three had been educated beyond 16. This information was not available for the remaining three participants. Most referrals were from medical sources (n = 20), the remainder from Health Visitors (n = 13), Social Services (n = 4) and one each from the Education Service, Child Development Service, Relate and Women's Refuge. Table 4 summarises these data.

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Table 4. Demographics of 41 Participants

Descriptor	Category	N	% of sample
Income	wage	14	34%
	benefit	27	66%
Co-habiting status	cohabiting	27	66%
	single parent	14	34%
Number of children in family	0-2	18	44%
	3 -6	23	56%
Maternal education	over 16	3	7%
	up to 16	35	85%
	missing information	3	7%
Referral source	medical	20	49%
	health visitor	13	32%
	social services	4	9%
	other	4	9%

Socioeconomic Disadvantage

The sample mean on socioeconomic disadvantage fell midway on the scale, which allowed scores from 0 - 6 (mean 2.9, SD = 1.5; 95% CI 2.3 - 3.4, range 1 - 6, N = 33). Most participants scored 2 (n = 9).

The socioeconomic disadvantage information was gathered in an interview between a researcher and the mother. The scale is not standardised, but baseline socioeconomic disadvantage scores correlated with baseline variable scores in ways which were consistent with the literature. Firstly, the higher the socioeconomic disadvantage scores, the higher the mothers reported their total Parenting Stress

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(r = .4, p < .05, N = 32). The higher their socioeconomic disadvantage scores, the

higher the mothers reported their Total Problem scores on the Eyberg Child Behavior

Inventory, that is the degree to which their children's behaviour was a problem to them

(r = .5, p < .01, N = 33). The higher their socioeconomic disadvantage, the lower their

children's intelligence scores (r = -.4, p < .05, N = 28). Lastly, although the teachers'

data were far from complete, scores on the Teacher Report Form for total problems

standardised by age correlated positively and significantly with the socioeconomic

disadvantage measure (r = .7, p <.05, N = 10). This was considered sufficient to

consider the SED 6 as an acceptable measure of socioeconomic disadvantage.

<div align="center">Child Measures</div>

Antisocial Child Behaviour and Child Constitution Measures

Table 5 gives results from the baseline measures relating to the children's

externalising behaviours, their self-control, and an estimate of their intelligence.

Table 5. Child Baseline Measures

Child variable	Mean	SD	95% CI for mean	Min	Max	N	over clinical cut-off	
							N	%
CBCL externalising T								
Parent	75.2	6.9	73.0 - 77.5	63	91	39	37	95
Teacher	64.1	12.1	57.2 - 71.1	43	80	14	9	64
Self-Control Rating Scale								
Parent	174.2	25.9	164.0 - 192.8	132	218	39	n/a	n/a
Teacher	161.5	33.0	153.5 - 182.6	79	200	20	n/a	n/a
Developmental Quotient	84.7	17.3	77.9 - 93.0	38.8	123	35	n/a	n/a

Externalising behaviours

The children's externalising behaviours were rated as very extreme by their

mothers. The mean of the Child Behavior Checklist externalising T scores for N = 39

was 75.2 (SD = 6.9). There were 2 cases (at 63) which were very close to the clinical cut-off of 64. These scores correlated at r = .53 (p < .01) with the earlier Eyberg Child Behavior Inventory scores. The Project was planned in order to help those children with particularly extreme behaviours, and the baseline mean was higher than that reported in other parent training studies. For example, the mother-reported standardised mean externalising score on the Child Behavior Checklist reported in a study of parent training with children of similar ages, was 66.3 (SD = 8.9; Webster-Stratton, 1990).

The response from teachers was low, with just under half responding to the request to complete and return the forms. The externalising behaviours of those children who were rated by their teachers, had a mean at the clinical cut off (64.1). The teachers rated the behaviours as problematic, but not as severe as rated by the parents. The correlation between parent and teacher ratings was moderate (r = .55, p = .05, N = 13). Teachers of the younger children who used the Preschool Behavior Questionnaire, reported a non-significant but moderate correlation with the externalising scale of the Child Behavior Checklist (r = .5, p > .1, N = 7). However, the Preschool Behavior Questionnaire was not a parallel form to the Child Behavior Checklist, and the association between Preschool Behavior Questionnaire and total standardised scores from parent report on the Child Behavior Checklist was high and statistically significant (r = .9, p < .01, N = 7). These results reflect greater concordance than usually found between different types of informants (Achenbach, McConaughy & Howell, 1987) and agreement may have been closer on account of the most difficult children being selected for the study.

Self Control

The children's problems with self-control were also rated as high by their mothers (higher scores reflecting low self control), and these ratings correlated with maternal ratings for externalising behaviours ($r = .6$, $p < .01$, $N = 38$). The self control measure was used as a partial check on reported child behaviour. Again, those teachers who responded, rated the children's self control as less severe. The teachers' ratings of the children's self control correlated highly with their ratings of the children's externalising behaviours ($r = .8$, $p < .01$, $n = 13$). The correlation between parent and teacher ratings was low ($r = .2$, $p > .1$, $n = 19$).

Although 25 parents completed the Conners Abbreviated Parent-Teacher questionnaire, only 15 teachers did so. Only 11 children received hyperactivity index scores from both parent and teacher. Of these, 9 children received scores indicating hyperactive behaviour. This was not sufficient to estimate what proportion of the sample might be considered to be hyperactive.

Developmental Quotient

The mean score for the sample at baseline was low at 84.8 (SD = 17.3, N = 35). The low outlier was a score for a child in the standard treatment group who received some specialist provision in school (whose score was 38.8. When this child's data were omitted, the mean Developmental Quotient was still low at 86.1 (SD = 15.6, range 49.6 - 123.8, N = 34). No other outlying score was observed in this child's data.) There was a moderate association between Developmental Quotient scores and the measure of socioeconomic deprivation ($r = -.4$, $p < .05$, $N = 28$).

This group of children, predominantly of boys (85%), had a mean age of six years old. They had been referred for behaviour problems, and their Child Behavior Checklist scores placed them well in the top of the clinical range. Their intelligence scores were low. Hence their profile conformed to what would be expected in an extreme clinical sample.

Distal Parental Factors

Table 6 depicts baseline levels of depressed mood, general mental health and parenting stress for the sample at baseline.

Table 6. Maternal Mental Health and Stress Measures at Baseline

Maternal mental health variables	Mean	SD	95% CI for mean	Min	Max	N	over clinical cut-off N	%
BDI	13.8	12.3	9.9 - 17.6	.0	53.0	41	22	53.7
GHQ	8.4	8.3	5.7 - 11.1	.0	29.0	38	23	52.6
Parenting Stress								
PSI total	109.2	20.7	102.6 -115.8	69.0	175.0	40	32	80

Depressed mood

At initial interview the mean BDI score was within the clinical range for depressive mood (13.8, SD = 12.3, range 0-53, N = 41), although 13.8 would be considered a rather low mean for a clinically depressed sample. Over half the sample were above the clinical cut-off of 10. The percentage over this cut-off would be expected of mothers of children referred for disruptive behaviours. (Twelve mothers (27%) scored over 15, which is more commonly used as a cut-off when examining depressed samples.)

General mental health

The General Health Questionnaire gave very similar results for more general mental health. The mean for N = 38 was 8.4, SD = 8.3, range 0 - 29. Twenty three mothers scored at or above the clinical cut-off (52.6%).

Parenting stress

Considerable parenting stress was reported by 80% of mothers (mean 109.2, SD = 20.7, range 69 - 175, N = 40). Twenty three mothers scored at or above 90 which indicates clinically significant levels of stress. Two participants scored 10 and 9 on the defensive responding scale. Scores at or below 10 on this scale indicate that the respondent has a strong bias to present the most favourable impression of herself and to minimise indications of problems or stress in the parent-child relationship. The scores of these participants on the other baseline measures were checked to ascertain that they were typical of the sample.

Social isolation

Scores from the Community Contacts Questionnaire for the 39 participants who completed this measure gave a mean of 15.3, SD = 3.1 (95% CI for mean 14.3 - 16.3, and range 7-20). Ten mothers were classified as insular (26%).

Parent-Child Autobiographical Memory Test

At initial interview, the mean number of unprompted specific responses on the Parent-Child Autobiographical Memory Test was higher than that of a sample of mothers of referred children whose problems were less severe and a normative sample (mean for sample in this thesis 6.2, SD = 2.2, N = 41; mean for referred sample with less severe behaviours 3.5, SD 2.4, N = 26; the normative sample mean was 5.5, SD = 2.5; Hutchings et al., 1998). The range was from 1 to 9. There was a low association

with socioeconomic deprivation scores (r = -.2, p > .1, N = 33). This measure is currently being evaluated and standardised.

Summary Profile of Mothers

These results reveal that over half the sample were experiencing three or more of the six elements measured which contribute to socioeconomic disadvantage; that is three or more of being on benefit; being a single parent; having three or more children to look after; having minimum levels of education; living in areas with high rates of crime and in housing conditions which were inadequate. In addition to this, half the sample reported notable difficulties with their mental health; three quarters were experiencing clinically significant levels of parenting stress and a quarter were socially isolated.

Allocation of Participants to Intensive or Standard Treatment

Participants were allocated to the group receiving standard treatment or that receiving intensive treatment, by restricted random allocation. This resulted in 19 children and mothers being assigned to the standard treatment group and 22 children and mothers to the intensive treatment group. The groups did not differ on any variable apart from parent-reported self control, with the children in the intensive treatment group showing less self-control than children in the standard group $(F(1,37) = 5.6, p < .05)$. The time elapsed between the baseline interview and treatment did not differ between groups (mean 2.4 months, SD = 2.4).

Measuring and Reporting Change

All follow-up interviews were conducted as near to six months after start of treatment as possible (mean 9 months, SD = 2.5, range 4.5-16). The 4.5 month

follow-up was for a child who had been prescribed Ritalin and it was decided that the follow-up should take place before the start of this medication. No significant difference was found between the mean time to follow-up for the standard and intensive groups. At follow-up there were 8 cases still open in the standard group and 14 in the intensive group. In the investigations which follow, hypotheses relating to change over time by group were examined using repeated measures ANOVAs. Treatment was at two levels, intensive and standard, and measurement at two timepoints. It was decided to report change separately for each group even when the ANOVAs were not significant, so as to obtain a picture of what standard Child and Adolescent Mental Health Service treatment achieved with this client group, and how intensive treatment might differ.

Given the large number of comparisons, it was originally decided that the use of modified Bonferroni procedures in reporting results from the Project (to bring overall alpha levels back to .05; Holm, 1979), would be methodologically rigorous. However, this decision was subsequently revised in the light of Perneger's arguments over the use of Bonferroni adjustments (Perneger, 1998). Perneger argues that a major weakness of correcting for multiple comparisons is that the interpretation of a finding depends on the number of other tests performed. The main focus of interest in the Bangor Project for Children with Disruptive Behaviours was whether intensive treatment had a greater effect on improvement in child behaviour, than standard treatment. The subsidiary issues were of different clinical and/or theoretical interest. The considerable number of measures and the range of relevant variables tapped was a great strength of the Project for informing clinical practice. It was therefore considered to be more clinically informative and clearer to present the significance statistics and histograms, and discuss the possible interpretation of results in such a way that a reasonable conclusion could be reached.

In addition to reporting on statistical change on each measure of interest, it was decided to give an indication of overall improvement by calculating an estimate of effect size. For the main variable of interest, externalising child behaviour, reliable and clinically important change were also calculated.

Measuring Reliable and Clinically Significant Change

Reliable change denotes the extent to which the change shown by an individual falls outside the range which could be attributed to measurement variability in the instrument. Clinically significant change denotes the clinical meaningfulness of change after treatment. For this study, the measure of reliable change chosen was that of Christensen and Mendoza (1986). These authors defined the Reliable Change Index as the raw difference score (change between baseline and follow-up scores, X_1 - X_2) divided by the standard error of differences between two measurements (SEdiff[2]). Of the seven psychometric measures of individual change reviewed by Hafkenscheid (2000), this was the most conservative method with the fewest statistical assumptions.

There is continuing debate over how best to assess the clinical importance of change. The original principle here was to judge change against socially validated criteria (Evans et al., 1998). One approach is to compare results after treatment with normative samples, that is people who have not been referred for treatment and who seem to be functioning well. This would estimate the probability of an individual being in a normal as opposed to clinical distribution after treatment. Another

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[2] SEdiff = SQRT ((2*(Se1*Se1)).
The formula for clinical change is (X1 - X2)/SEdiff.
Se = standard error of measurement. Se for the externalising scale from the Child Behavior Checklist for referred boys aged 4 - 11 is given in the manual as 3.4.
3.4*3.4 = 11.56
2*11.56 = 23.12
sqrt 23.12 = 4.81
SEdiff = 4.81 (Achenbach's figures were slightly different for girls, giving SEdiff = 3.59)

suggestion is comparing post- with pre-treatment scores, and making the assumption that an improvement of two standard deviations in scores indicates clinical change for an individual. This method does not measure the extent to which an individual is moving out of the original sample. Moving to within 2 standard deviations of a normative sample mean does not assess the extent to which the individual is moving away from the original sample. Diagnostic criteria may be used, but individuals may be borderline (within clinical range) at pre-treatment and borderline (outside the clinical range) at post-treatment with a small shift in scores, so a change in one or two symptoms may lead to the conclusion that there has been real change. Kazdin argues that social impact measures of change, for example a decrease in truancy, may be held to be meaningful (Kazdin, 2000).

Although Kazdin (2000) reports that there is not much evidence that achieving normative levels of symptoms indicates genuinely better functioning in everyday life, and reminds readers that individuals who fall below diagnostic criteria can still have significant problems, it was considered important to attempt to measure clinical change. Such data enable a definition of success in treatment and a further follow-up study which is under way will indicate the validity of the procedure. The approach chosen for this study was whether individuals moved to within 2 SDs of a normative mean. This method was chosen because with such an extreme clinical sample, the distributions of clinical and normative samples were essentially non-overlapping (Evans et al., 1998).

Attrition

Six participants dropped out of the study and were not interviewed at follow-up. One participant was lost from the intensive treatment group because the family moved from the area immediately after the initial treatment phase. Five participants

were lost from the standard treatment group. Three families had moved. One had moved out of the county and two were believed to have moved locally, but without maintaining contact with the service. One of these three was a referral from Women's Refuge, so it may have been that the situation in which this mother was attempting to receive therapy was more difficult than for many of the sample. Local Social Services objected to the involvement at follow-up of the child who was in a foster placement. This was reported to be because the child had not received an adequate service. One mother declined to participate. Descriptive data for the participants not included at time two are in Appendix T. Although there were no significant differences between those who stayed and those who left on baseline measures, the families who left had children who were over 18 months older on average, than those who stayed in treatment, and all were receiving state benefit. In addition to the five in standard treatment who lost contact with the service, there was one other mother in standard treatment who was not at home for several consecutive research appointments. For this family there was the follow-up observation measure and measures of child intelligence and the consumer satisfaction questionnaire only. (Figure 2 shows attrition of five because there were not externalising behaviour scores for two children in the standard group.)

Descriptive data at baseline and follow-up for the sample are in Appendices R and S.

Primary Investigation

The primary outcome of interest was differential improvement in the children's externalising (conduct problem) behaviour. This was the only targeted variable. It was hypothesised that all children would show improvement, because all were receiving treatment, but that the children receiving intensive treatment would

show greater improvement in their behaviour than the children who received standard treatment.

At baseline, the externalising behaviours of the children in both the standard and intensive treatment groups were identical. Participants in the group receiving intensive treatment changed more than those in standard treatment. At follow-up, means for the groups were clinically borderline and within the clinical range respectively. (The mean CBCL externalising T score for the standard group at time one was 75.1, SD = 5.8 and at follow-up fell to 67.8, SD = 9.3. The means for the intensive group were 75.4, SD = 7.8, and 63.9, SD = 11.1 respectively.) Figure 2 depicts these data.
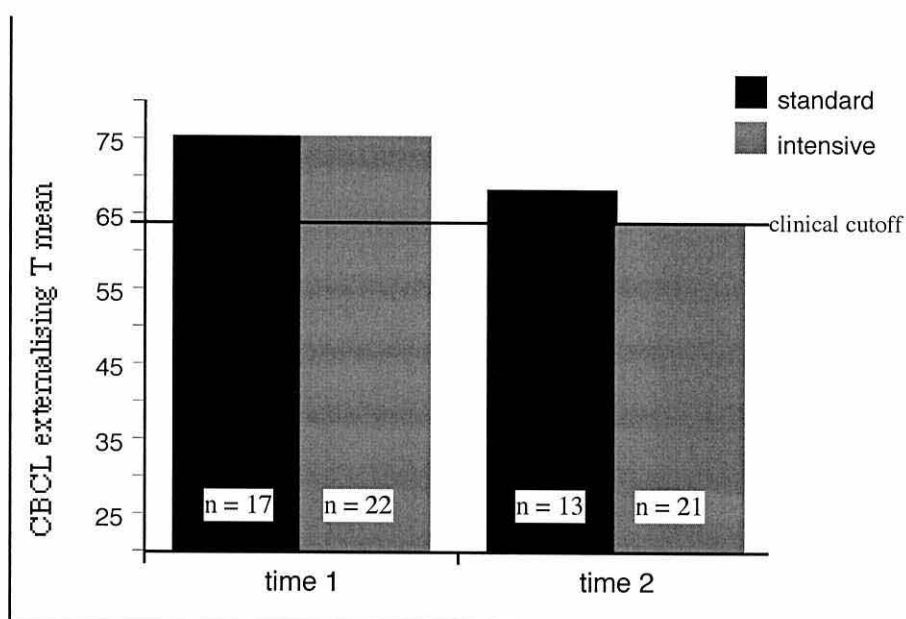
Figure 2. Mean CBCL externalising T scores by group, pre- and post-intervention.

There was no statistically significant interaction of treatment group by time on child behaviour change. When the performance of the groups was examined separately, both had changed: for the intensive group, $t(20) = 4.5$, $p < .001$ and for the group receiving standard treatment $t(11) = 3.2$, $p < .01$.

These results indicate that both treatments achieved fairly similar improvements in the children's behaviour. It was not possible to corroborate these

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findings using teacher report because only two children in the standard treatment group and four in the intensive group had teacher report scores on the parallel measure at both timepoints. When reliable and clinical change were examined, no differences emerged between the standard and intensive treatment groups. Numbers are shown in Table 7.

Table 7. Cross Tabulation of Reliable Change against Clinically Significant Change

| | | Reliable change | | | | | |
| | | Standard treatment | | | Intensive treatment | | |
		Yes	No	Total	Yes	No	Total
Clinically significant change	Failed to achieve clinically significant change despite sufficient initial score (outside 2 SDs of normal mean)	0	6	6	2	6	8
	Started better than criterion for clinically significant change (within 2 SDs of normal mean)	1	0	1	3	3	6
	Clinically significant change	4	1	5	5	2	7
	Total	5	7	12	10	11	21

Of those who were eligible (15 in the intensive treatment group and 11 in the standard treatment group), 36% of children in the standard group were reported to have made reliable and clinically significant change, and 33% in the intensive treatment group.

<u>Secondary Investigations</u>

The main focus of interest in the Bangor Project for Children with Disruptive Behaviours was relative change in the children's externalising behaviours. In order to make sure that difference in treatment was the major effect on outcome, it was important to ascertain that the treated groups were similar on other measures which

might have influenced outcome, as discussed in the previous chapter. These other variables were not targeted in treatment, but it was of interest to know what differences were effected by the standard treatment routinely offered to families as part of the Child and Adolescent Mental Health Service, and whether intensive treatment improved on those outcomes. The following investigations are considered secondary, because adopting intensive treatment as the approach for children with extreme behaviours would be dependent on child behaviour outcome.

Children's Standardised Developmental Quotient Scores.

It was hypothesised that children's Developmental Quotient scores would change, that is the standardised scores from the verbal and performance scales of the IQ tests. The tests used were the Wechsler Preschool and Primary Scale of Intelligence and the Wechsler Intelligence Scale for Children. Greater change was expected in the group receiving intensive treatment.
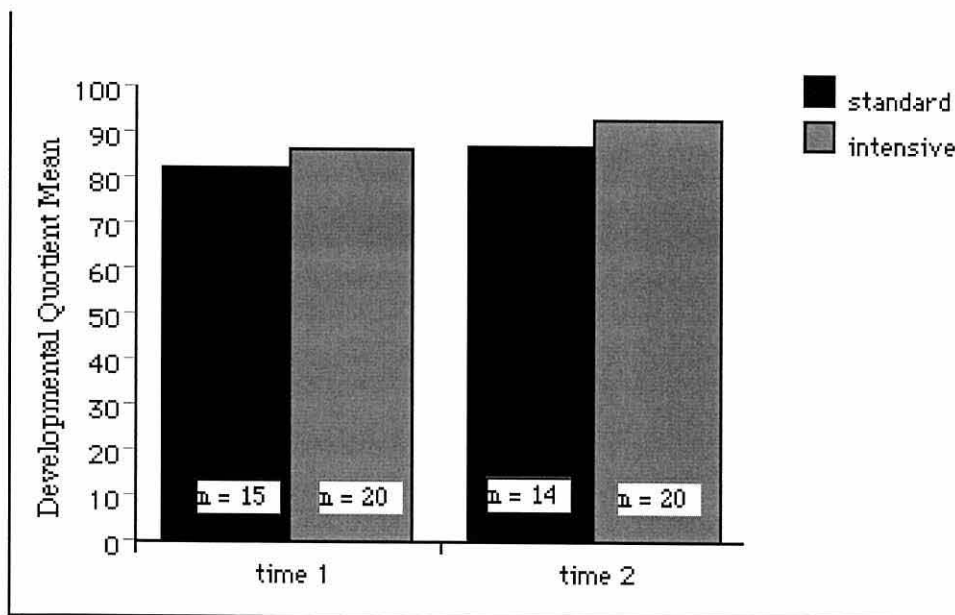
Figure 3. Mean Developmental Quotient scores by group, pre- and post-intervention.

The Developmental Quotient is an estimate of intelligence, for which the norm

is 100. The Developmental Quotient score for the standard group at time one was low at both timepoints, but had improved by follow-up (mean baseline score was 82.3, SD = 21.5, and at time two was 86.9, SD = 22.7). The Developmental Quotient mean for the intensive group was also low at baseline, but nearing the norm at follow-up (86.6, SD = 13.7, and 92.9, SD = 15.5, respectively). Figure 3 illustrates these data.

There was no significant interaction between the two groups $(F (1,30) = .3, p > .5)$. When the performance of the groups was examined separately, neither group made statistically significant change (for the intensive group, $t(18) = -2.0$, and for the group receiving standard treatment $t(12) = -1.9$; $ps > .05$).

The Developmental Quotient scores improved without being targeted by the therapists and without additional educational help at school, apart from the one boy in standard treatment (whose baseline and follow-up scores were 38.8 and 46 respectively). It is probable that lower post-treatment levels of externalising problems allowed the children to focus better on the tests.

It was hypothesised that maternal mental health (Beck Depression Inventory; General Health Questionnaire) and stress levels (Parent Stress Index) would improve in both groups of mothers, even though these variables were not directly targeted. It was expected that there would be greater improvement in the intensive treatment group.

Depressed mood

The mean for both groups at baseline fell within a band denoting mild (to moderate) depression. The mean BDI score for the standard group at time one was 13.5 (SD = 10.4) and at time two was just at the clinical cut-off at 10.3 (SD = 11.1). The means for the intensive group were 14.1 (SD = 14.0) and 7.9 (SD = 9.0)

respectively.   As shown in Figure 4, this mean score of 7.9 is below the clinical cut-off point.
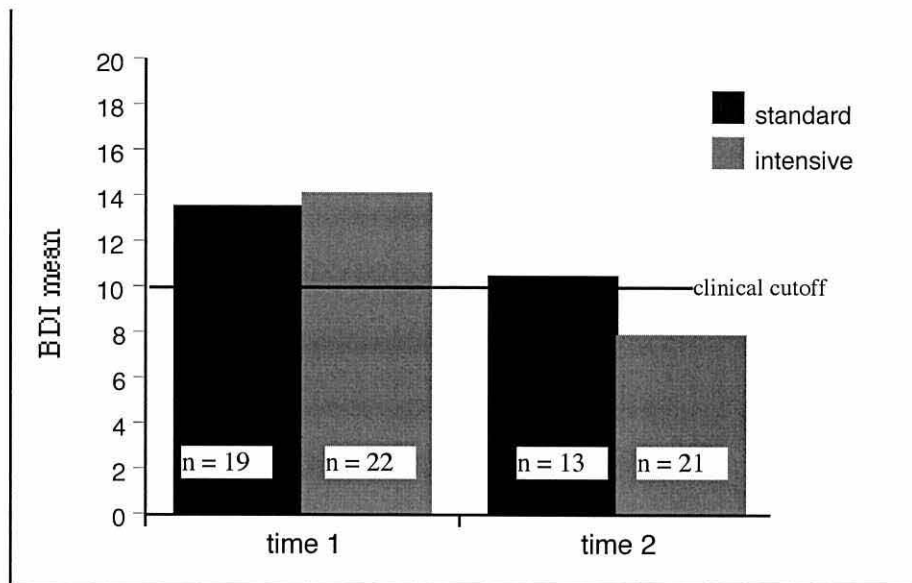
Figure 4. Mean BDI scores by group, pre- and post-intervention.

When the change in BDI was examined by group over time, there was no difference in how the groups fared $(F(1,31) = 1.7, p > .1)$. It can be seen from Figure 4 that levels of depressed mood changed dramatically. Whereas pre-post comparisons were not statistically significant for the standard group $(t(12) = .8, p>.1)$, there was marked improvement in the intensive treatment group $(t(20) = 3.3, p < .01)$.

General mental health

The difference in change in mental health between the groups was more pronounced on the measure of general mental health. GHQ scores were above clinical cut-off for both groups at baseline. Although the baseline means appeared different, this was not a significant difference $(F(1,37) = 1.6, p > .2)$. The mean GHQ score at time one for the standard treatment group was 6.5 $(SD = 6.7)$ and for the intensive group it was 9.9 $(SD = 9.3)$. At follow-up, the reported general mental health of the standard group had not changed (mean 6.5, $SD = 8.6$). The mean score

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for the intensive treatment group had fallen below clinical cut off (mean = 3.7,

SD = 5.5). Figure 5 depicts these data.
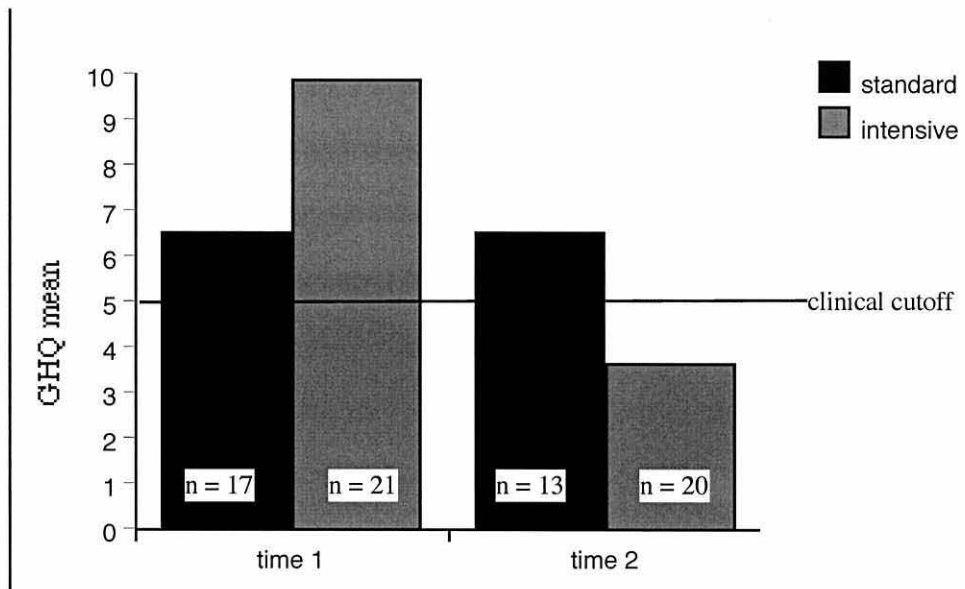
Figure 5. Mean GHQ scores by group, pre- and post-intervention.

The lack of change in the standard treatment group meant that there was an interaction effect of group by time on this measure (F(1,30) = 4.5, p = .04), with the group who received intensive treatment making significant change. (As can be seen in Figure 5, there was no change between baseline and follow-up for the standard group (t(12) = -.07, p > .9), but this change was statistically significant for the intensive group (t(18) = 4.6, p < .001).

Goodchild and Duncan-Jones' method of scoring was also used to test whether that measure might be more sensitive to change. Initial and follow-up scores were higher in both groups when this method of scoring was used (intensive group mean 14.5, SD = 8.1 at time one and 8.7, SD = 6.8 at time two; standard group mean 14.4, SD = 5.1 at time one and 11.9, SD = 8.4 at time two). Neither group's mean fell below the clinical cut-off at time two. The interaction was not statistically significant (F(1,30) = 2.6, p > .05). Change in each group examined separately gave a significant

result for the intensive group (t(18) = 4.2, p < .01) but not for the standard group (t(12) = .7, p = .5).

On both the BDI and the GHQ, the group who received intensive treatment showed change which was greater than that shown by the group receiving standard treatment. The standard deviations at follow-up were greater in the standard group, and this appears to be attributable mainly to one mother's follow-up scores. (The range for the standard group at follow-up on the BDI was 2-44, and on the GHQ, 0-29. Without this participant's scores the ranges would have been BDI 2-15, and GHQ 0-17, but the significance of results would not have changed.)

Parenting Stress

Parenting Stress Index totals for each group at each timepoint are depicted in Figure 6.
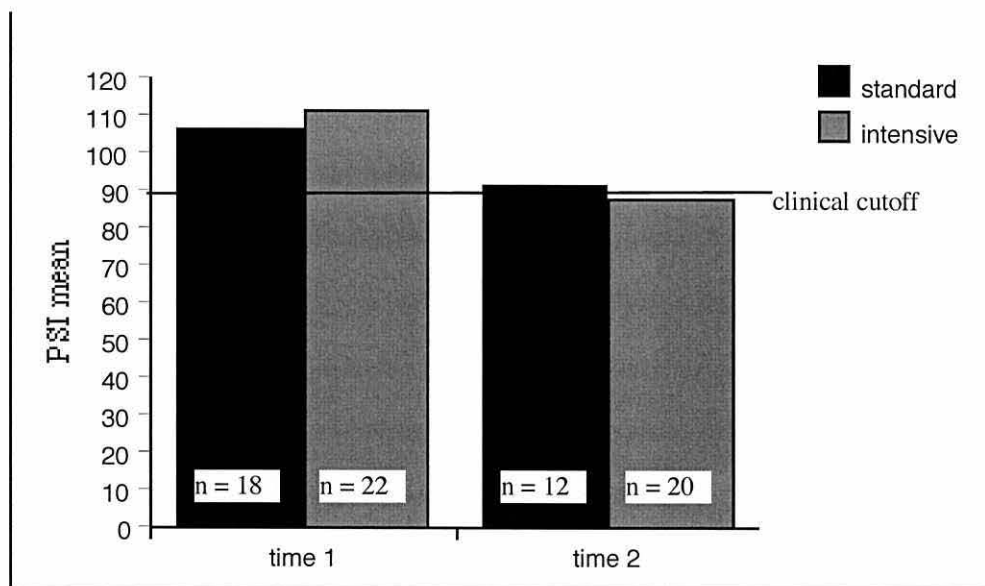
Figure 6. Mean Parenting Stress Index total scores by group, pre- and post-intervention

At baseline, both groups scored well above the clinical cut-off of 90. The mean total Parenting Stress Index score for the standard group was 106.5

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(SD = 16.1), and for the intensive group it was 111.5 (SD = 23.9). Follow-up scores showed both means to have dropped to similar levels around the clinical cut-off (standard group mean = 91.8, SD = 14.8; intensive group mean = 87.7, SD = 18.5). At time two, one mother from the intensive group recorded a score of nine on the defensive responding subscale of the Parenting Stress Index. As explained earlier, this indicates a tendency for the mother to present a favourable impression of herself and to minimise any problems in her interactions with her child. This participant's responses were not extreme in terms of the sample on any other measure.

There was no interaction of group by time on the Parenting Stress Index ($F(1,30) = 1.1$, $p > .1$). Change between baseline and follow-up was significant for the intensive group but not for the standard group (intensive group $t(19) = 4.3$, $p < .001$; standard group $t(11) = 2.2$, $p = .052$).

The subscales of the Parenting Stress Index showed a similar pattern, and mothers in both groups reported statistically significant change in how difficult they perceived their children to be, mirroring the reported change on the Child Behavior Checklist.

Overall, the trend of improvement in terms of maternal mental health was somewhat more evident for the intensive group.

Social isolation

Social isolation was expected to decrease for both groups, both as a result of child behaviour improving, and the children being more welcome in other people's homes, and because maternal mental health was expected to improve, so the mothers themselves would also be easier to be with and would find making and maintaining contact more feasible. Hence, an increase in Community Contact Questionnaire

scores was expected along with the expectation that fewer mothers would be categorised as insular.

The Community Contacts Questionnaire is not standardised but can give an indication of trends. It is a measure of the quality of social contact, and higher scores are positive. The meaning of particular scores is not yet very informative, except when viewed in relation to the maximum score of 20. There was almost no change on this measure in the standard treatment group (time one mean 14.6, SD = 3.5, time two mean 14.2, SD = 3.1). The mean for the intensive group increased slightly over the course of treatment (time one mean 15.7, SD = 2.8; time two mean 16.7, SD = 3.1). The groups did not show different improvement over the course of the study, either when compared to each other or when examined separately $(F(1,32) = 1.09, p = .3)$. Figure 7 displays these data.
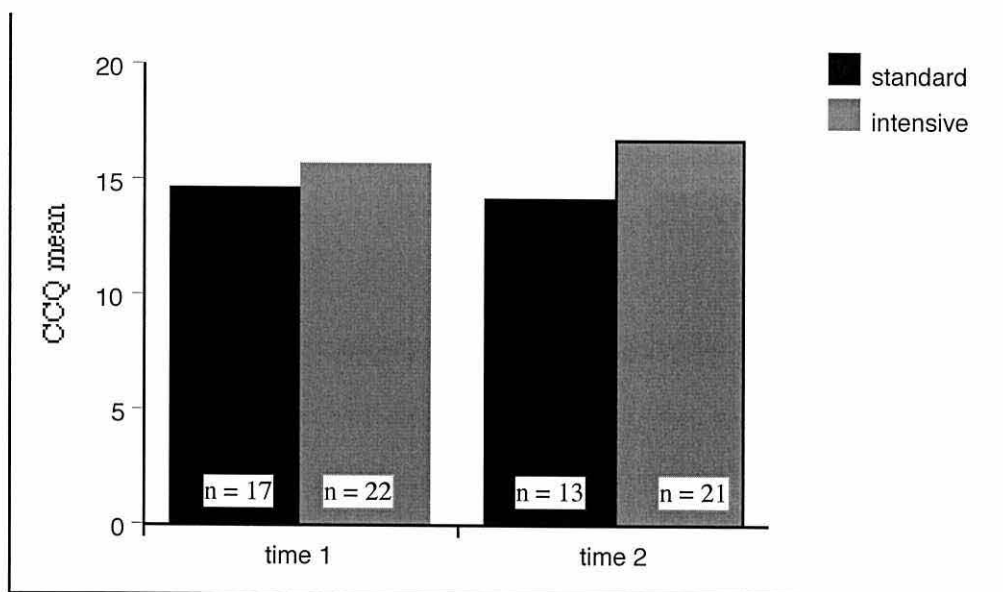
Figure 7. Mean Community Contact Questionnaire scores by group, pre- and post-intervention.

At baseline, 7 (32%) of the mothers in the intensive group were classified as insular as were 3 (16%) of the mothers in the standard group. At follow up 6 (27%)

of the intensive group mothers were considered insular and 6 (32%) of the mothers in the standard group.

It can be concluded that social contact and support remained fairly stable for both groups over the 9-month timespan. It is not known at what point in treatment changes in child behaviour and maternal mental health took place. Possibly it was premature to anticipate knock on effects of such changes on quality of community contacts and social isolation within this timespan.

The self-report measure of discipline practice reflected more proximal parenting.

Discipline practice

Although parenting behaviour, particularly discipline practice, was targeted as part of the standard and of the intensive intervention, the Parenting Scale itself was not introduced as a measure at the beginning of the Project. This was because change in child behaviour was assumed to result from training parents to discipline their children more effectively, and this self-report measure of discipline was not prominent in the available literature at the time. It was included as a potentially useful measure, but because it was not standardised on the age range included in the Project, there were not specific markers against which scores could be assessed. However, in keeping with the other hypotheses in the study, it was anticipated that reported discipline practice would change for the better in both groups, but more so for the intensive group.
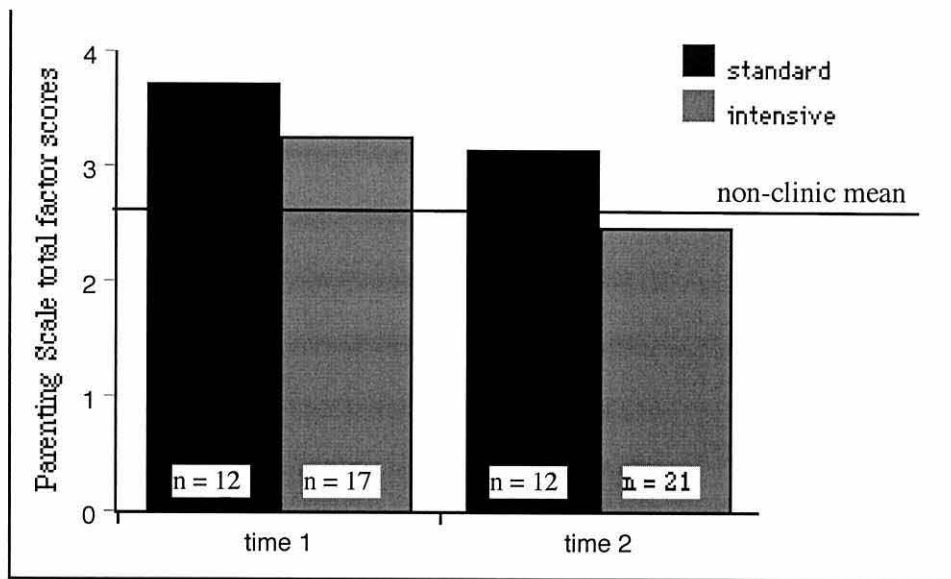
Figure 8. Mean Parenting Scale total factored scores by group, pre- and post-intervention.

The horizontal line in Figure 8 indicates the mean score for the control group used when the scale was standardised (mean age = 28.6, SD = 3.3, N = 51).

Unsurprisingly, the baseline means for both groups on total dysfunctional parenting (the total factor score) were higher than for a typical group of younger children who were not considered to have disruptive behaviours. By follow-up, means from both groups had changed by a similar amount, resulting in the mean for the intensive group only, falling below the non-clinic mean (intensive group mean at time one was 3.3, SD = .9, and at time two was 2.5, SD = .8; standard group mean at time one was 3.7, SD = .6, and at time two it was 3.1, SD = .9).

The mothers in the standard group reported higher (albeit not significantly higher) levels of dysfunctional parenting at baseline. Neither group reported greater change in discipline over time than the other $(F(1,21) = 0, p > .9)$. Although discipline practice improved in both groups, change for the standard group was not

significant, but the intensive group made significant change (standard group t(7) = 1.4, p > .1; intensive group t(15) = 3.8, p < .01).

What was the relationship between reported externalising child behaviour problems and reported discipline practice?

In the sample as a whole, reported parenting did not relate to child behaviour at baseline (r = -.1, p > .4, N = 28). At follow-up the picture was very different, with a moderate correlation between the two variables (r = .5, p = .001, N = 33). At baseline, both sets of scores were towards the higher end of the distributions, which may have restricted a possible correlation. The standard deviation for the Parenting Scale scores was similar at both timepoints (baseline SD = .8, follow-up SD = .9). By follow-up there was a more meaningful relationship between how parents disciplined their children and the children's behaviour as a result of the behavioural training received in each group. At baseline parents may also have been much less aware of the discipline practice they used and less observant of their children. Baseline and follow-up discipline scores were significantly associated (r = .6, p < .01, N = 24). A wider distribution of scores would have been expected at follow-up, but for externalising child behaviour scores, the range was 39 at baseline and 41 at follow-up. The range of the factored parenting scale scores at baseline was 3.16 and at follow-up, 3.5. In terms of raw scores this is a range of 95 at baseline and 105 at follow-up.

These results give some credence to the use of the Parenting Scale with mothers of children with severely disruptive behaviours in this age range.

Overall Therapeutic Change

The results presented thus far, indicate that outcome was generally good for the standard group, although somewhat better for the group receiving intensive treatment. In order to look at a summary of the magnitude of therapeutic change

rather than at each measure separately, a z change score was calculated for each child and parent. Post-treatment scores were taken from pre-treatment scores and this change score was divided by the standard deviation for all participants at time one. This had the effect of placing all scores on the same metric. For child outcomes a mean z score was obtained from the z score from change in externalising behaviours and Developmental Quotients. For the adults, a mean z score was obtained from the z scores for depressive mood, more general mental health, parenting stress and social support. These z scores may be considered as equivalent to effect size measures (Kazdin & Wassell, 1999). Effect sizes of .20, .50 and .80 are taken to indicate small, medium and large size effects (Cohen, 1988). These are shown by group in Table 8.

Table 8. Effect Sizes of Therapeutic Change in Child and Adult Variables by Group

Combined measures	Child Externalising behaviour Developmental Quotient		Mother BDI, GHQ, Parenting Stress, Community Contacts	
	intensive n = 16	standard n = 10	intensive n = 16	standard n = 10
mean z change score	.8	.4	.6	.4
95% Confidence Interval for mean	.3, 1.2	-.1, .8	.3, .9	-.2, .5

Effect sizes were larger in the group receiving intensive treatment, at .8 for the children and .6 for the adults. The effects were medium for both children and adults in standard treatment (.4). Although numbers were low for drawing definitive conclusions about the treatments (16 for the intensive group and 10 for the standard group), the size of the effects would indicate that longer term outcome for participants in the intensive group would be likely to be more positive. In keeping with Kazdin and Wassell (2000), in the group receiving intensive treatment, the magnitude of the changes indicated large improvements for child outcome measures and smaller improvements for parent outcome measures. By contrast, both children and parents in the group receiving standard treatment, appear to have benefited to a similar degree.

The gains from therapy which focused on the children extended to maternal functioning, even though this was not targeted. These broad changes have significant implications for evaluating the effectiveness of treatment and the benefits and costs of delivering services to children.

Consumer Satisfaction

It was expected that consumer satisfaction would be high in both groups but that satisfaction would be greater in the intensive group. The consumer satisfaction questionnaire produced five scores which related to: general arrangements with the service provider; the process of therapy; the likelihood of recommending the service to a friend; overall satisfaction; and a rating of treatment outcome.

A high mean level of overall satisfaction was reported by the sample. Although mothers who received intensive treatment reported marginally greater satisfaction in each section of the questionnaire, there was no overall difference in satisfaction ($F(5, 27) = 1$, $p = .4$). However, when the categories were examined separately, the group of mothers who received intensive treatment expressed greater satisfaction with the outcome for their children and the general arrangements for treatment (both at $F(1,33) = 4.2$, $p < .05$). The standard deviations were greater in the group receiving standard treatment. This possibly reflected the fact that many more therapists were involved with this group. What also needs to be considered here is that those who opted out of treatment would be more likely to give lower scores. This would probably have led to greater differences between the groups.

Exploratory Investigation: Parent-Child Autobiographical Memory Test

There had been intriguing results from Hutchings' earlier work indicating that scores on the Parent-Child Autobiographical Memory Test might identify those

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parents who would not attend for treatment or who might opt out of treatment. Higher scores on the Parent-Child Autobiographical Memory Test were also associated with lower levels of socioeconomic deprivation (Hutchings et al., 1998). The hypothesised role of the measure as an indicator of maternal observation skills was not confirmed in a study conducted after the Bangor Project for Children with Disruptive Behaviours, and before the writing of this thesis. However, there was some association between scores on the Parent-Child Autobiographical Memory Test and problem solving (Hutchings, Smith & Gilbert, 1999).

It was anticipated that the Parent-Child Autobiographical Memory Test might act as a version of the Autobiographical Memory Test (Williams & Broadbent, 1986) but with more face validity for parents of children with disruptive behaviours. On account of this it was hypothesised that it could be measuring a stable trait of cognitive flexibility. Hence it was expected that numbers of unprompted specific Parent-Child Autobiographical Memory Test scores would be stable for the sample as a whole between baseline and follow-up, and that the intensive and standard groups would display similar levels of unprompted specific recall at both time points.

Figure 9 shows, as reported under the baseline measures, that the mean Parent-Child Autobiographical Memory Test score at time one for the whole sample was above that of a normative sample (Bangor Project for Children with Disruptive Behaviours mean = 6.3, SD = 2.1, N = 41; normative sample mean = 5.5, SD = 2.5, N = 22). This is difficult to interpret, because there are not yet sufficient data on the Parent-Child Autobiographical Memory Test to know what to expect from different samples. However, lower baseline scores would have been expected. The level of recall in the standard and intensive groups was similar at both
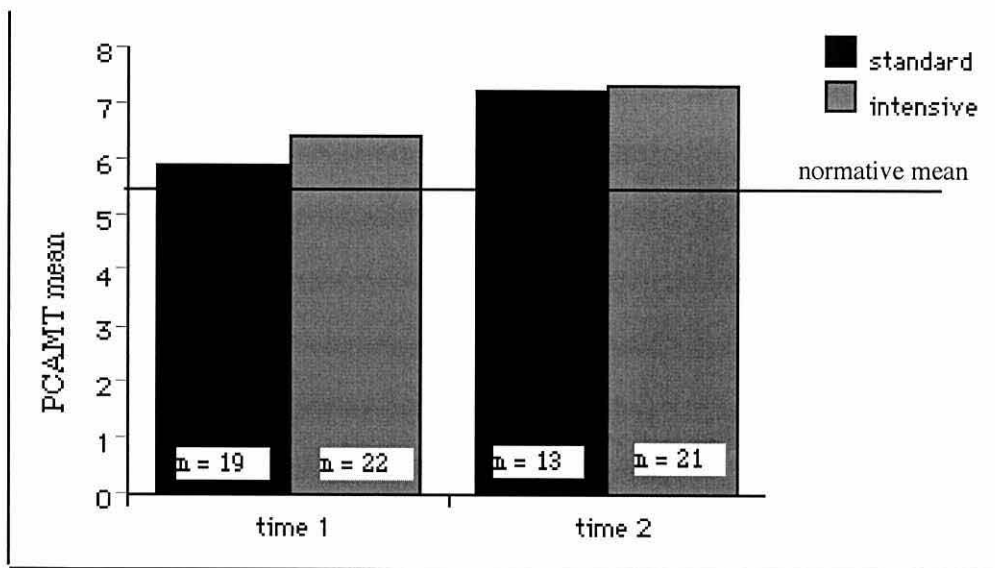
<u>Figure 9</u>. Mean Parent-Child Autobiographical Memory Test scores by group, pre-
and post-intervention.

timepoints, as was the amount of change. (The mean Parent-Child Autobiographical

Memory Test score at time one for the standard group was 5.9, SD = 2.4, and at time

two was 7.2, SD = 2.1. The intensive group mean at time one was 6.4, SD = 2.1, and

at time two was 7.3, SD = 2.0.). The moderate correlation between Parent-Child

Autobiographical Memory Test scores at baseline and follow-up would indicate some

stability in the measure (r = .4, p < .05, N = 34).

There was no difference between the Parent-Child Autobiographical Memory

Test scores of those who remained in treatment and those who left. (Baseline means

were identical at 6.2, and SDs were 2.3 for those who stayed in treatment and 1.7 for

those who left.) As data on the measure accumulate, it will become clearer whether

Hutchings' earlier findings which showed that lower scores were associated with not

attending for treatment, are repeated.

At baseline and follow-up the correlation between Parent-Child

Autobiographical Memory Test scores and socioeconomic deprivation was low, but,

in keeping with expectations, Parent-Child Autobiographical Memory Test scores

were higher for those experiencing lower levels of socioeconomic deprivation

(baseline r = -.2, p > .1, N = 33; follow-up r = -.3, p > .1, N = 25). Baseline Parent-

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Child Autobiographical Memory Test scores were more strongly associated with socioeconomic deprivation scores at follow-up (r = -.4, p <.05, N = 25). This would imply that those mothers who showed greater cognitive flexibility were able to improve their socioeconomic status over time. This is in keeping with the proposition that the Parent-Child Autobiographical Memory Test might relate to a measure of intelligence. Supporting this is the correlation with the children's Developmental Quotient scores (baseline r = .3, p < .1, N = 35; follow-up r = .5, p < .01, N = 33). In all, these findings warrant further investigation of the association between the Parent-Child Autobiographical Memory Test and socioeconomic deprivation.

<u>Observational Measure</u>

It was hypothesised that at follow-up there would be differences in the observed behaviour of the mothers and the children in the intensive and standard treatment groups, reflecting the mothers' different experience of therapy.

The main categories of interest in relation to child behaviour were rates of opposition and compliance and rule violation. In keeping with the mothers' reports on their children's behaviour, no differences were found between the intensive and standard groups on these variables.

The mothers in the intensive group approached their children more frequently than did mothers in the standard treatment group (maternal approach F(1,29) = 5.3, p < .05). This category included positive and negative approach, and no differences were found between the groups on these subcategories. Greater frequency of approach could be interpreted as mothers in the intensive group being more engaged, although using similar proportions of positive and negative approaches. The children in the intensive group were not observed to behave differently, so this finding is difficult to construe. It could possibly reflect the somewhat lower levels of depressed mood and general mental health in the intensive group at follow-up.

One of the precepts of social learning theory, and one of the most important behaviour management techniques taught to mothers, was that specific rather than general instructions are more likely to result in compliance. The category of specific instruction had been added to the coding categories for the purposes of this study. No difference was found between the intensive and standard treatment groups in maternal specific instructions, and these findings were in keeping with most of the findings on the self-report measures, which did not distinguish between the groups at follow-up. However there was support for the precept that specific instructions are related to child behaviour. Taking the sample as a whole, mothers rated their children's aggressive behaviours as lower when observers rated the mothers as giving more specific instructions ($r = -.5$, $p < .01$, $N = 30$). Observers noted rates of child compliance to be higher and opposition to be lower, the higher the rates of specific maternal instructions ($r = (-).5$, $p < .05$ and $N = 31$ for both correlations). This may not appear pertinent to the main question of whether observers noted differences between the intensive and standard groups at follow-up, but these ratings of compliance leant indirect support to maternal report of child aggression. No association was found between observer-rated child opposition or rule violation and mother-rated child aggression. However, these concepts are somewhat different and children's observed compliance rates were rated as higher if their mothers rated their behaviour to be less aggressive ($r = -.4$, $p < .05$, $N = 30$).

A different approach was to see how observation and self-report measures related to theory. Findings also gave some indirect support to the self-reported mental health of the mothers, in accordance with findings described in the first chapter of this thesis. Results were similar for BDI and GHQ, so only BDI will be reported here (all at $N = 30$). Mother participation is a category used to denote those times when there are social exchanges which do not involve conversation, for example helping the child with homework, being silently responsive to the child, watching the child or watching

his or her performance on the task. The higher the mothers' reported BDI score, the lower the degree of observed participation ($r = -.5$, $p < .01$). Mothers with higher BDI scores used more timeout procedures with their children ($r = .7$, $p < .001$). In relation to the children's behaviour, the higher the mothers' BDI scores, the higher the degree of their children's oppositional behaviour ($r = .6$, $p < .01$), the more the children broke rules ($r = .5$, $p < .001$), the less they were engaged on task ($r = -.6$, $p < .001$) and the more they did nothing ($r = .5$, $p < .05$).

The Mother-child Interaction Scale gave the observer's ratings of the quality of the relationship (Appendix U). Scores were related to maternal reports of social support ($r = .4$, $p < .05$, $N = 29$).

Appendix U gives the means and standard deviations for the Standardized Observational Codes and Mother-child Interaction Scale used in the Brown Circles task.

There are various interpretations of these limited findings. The suitability of the Brown Circles task could be questioned because it was designed for screening for physically abusive mothers (Tuteur et al., 1995). Mothers were asked to keep their child on task (drawing brown circles), and possibly this task did not allow sufficient natural interaction whereas Wahler and colleagues used other, more natural scenarios where all family members had to be present (Cerezo et al., 1986). In particular, the task may not have elicited the child externalising behaviours which were the focus of this study, so associations with observed child opposition, compliance and rule violation did not readily arise. There is also the consideration that even though all parents had received training, it was still likely to be an unusual occurrence for a mother to sit down with her child for 10 minutes. Both mother and child could have behaved atypically in this situation. The coding system (Cerezo et al., 1986) was not the one developed alongside the Brown Circles task and although it can be used for

quantifying behaviours, as it was in this study, its primary use is for describing sequences of behaviour.

However, it remains that no meaningful differences were observed between the groups at follow-up. Also the relationships demonstrated between reported mental health and observed maternal and child behaviour provided some validation of findings using the Brown Circles task together with the Wahler coding scheme.

What Variables were Most Associated with Reliable or Clinical Change?

Although the main aim of the research project was to compare differences in child behaviour outcome from standard and intensive approaches, the rich set of data allowed exploring which of the many measures taken were most associated with child behaviour change. Most of the factors known to be related to change were represented in the study, apart from a measure of marital harmony. On exploring the data it was found that in this extreme clinical group, the variable most associated with reliable and clinically important change was the reported duration of the problem ($F(1,30) = 6.1$, $p < .05$). Those who reported reliable change had also reported the duration of the problem to be less than those who did not report reliable change (the mean duration of the problem for those who reported no change was 54.3 months, $SD = 27.4$, $N = 17$; the mean duration of the problem for those who reported change was 29 months, $SD = 22.6$, $N = 15$). The same was the case for clinically important change (the mean duration of the problem for those who made clinically important change was 31 months, $SD = 22.2$, $N = 18$; for those who did not change the mean duration was 54.2 months, $SD = 30$, $N = 15$).

Although greater change in Child Behavior Checklist scores was associated with younger children ($r = -.4$, $p < .05$, $N = 33$), age itself was unrelated to reliable and

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clinically important change ($F(1,31) = .3$). Results from examining age of onset were close to findings from examining the duration of the problem, but the duration of the problem was the most telling variable in relation to those who made both reliable and clinical change and those who made neither or who only changed in one category.

Summary of Health Economics Data

The different costs of the intensive and standard treatments were assessed for a six month time period from the start of treatment, because at the time when the assessment was planned, it was assumed that follow-up would be at six and not nine months (the mean follow-up time).

Intensive treatment families were seen twice as often as control families and for over three times as long. Service contact time was reported as 25 hours on average (range 14-36 hours) for the intensive treatment families and 7 hours on average (range 3-12 hours) for the standard treatment families. Frequent use of two staff in the unit during the initial stages for programme development, and the subsequent involvement of other team members who were learning about the programme, resulted in five times more therapist time being spent with these families. At either £1400 or £1000 (1996 figures) the cost of the intensive treatment programme was two or three times that of the control treatment, depending on whether the costs of one or two therapists are included in the calculation. A full report on the cost of treatment is available from the Project Office[3].

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[3] Judy Hutchings, Bangor Project for Children with Disruptive Behaviours, School of Psychology, BANGOR, Gwynedd LL57 2AS.

Discussion: Comments on Results and Links to the Thesis' Question

Summary of Findings

It had been anticipated that over time, the group of children whose mothers received intensive treatment would show greater positive reported change in their behaviour than those children whose mothers received standard treatment. It was hypothesised that this difference would also be evident in observational measures at follow-up. Over the nine month timespan of the project, no differences were apparent in how child behaviour in the groups changed nor in the follow-up observation measure. When change was examined separately for the intensive and standard treatment groups, each reported significant statistical change in the children's aggressive behaviours. Approximately one third in each group reported reliable, clinical change. Both groups also reported high levels of satisfaction with the service received. The duration of the problem was the variable most closely associated with reliable and clinical change.

On measures of the children's intelligence, maternal mental health and parenting stress, there was improvement in both groups (apart from on the standard group's General Health Questionnaire scores). Change was statistically significant for the intensive group, apart from on change in the children's intelligence levels, but not for the standard group on these variables. However, lower numbers in the standard group at follow-up and the lack of difference in change over time, qualify these findings. The larger effect sizes of therapeutic change in the intensive group, in variables which were not targeted, did not result in lower levels of aggression in their children. However, they may well inform longer-term outcome. In terms of community contacts, the mean for both groups at baseline may not have been at an undesirable level, and change here is difficult to assess.

Design and Methodology

Participants in the study were all clinical referrals to NHS mental health services. Problems were severe in nature, in that children with extreme scores were further selected to be invited to take part in the study. The sample was thus very relevant to NHS practice.

Numbers of participants reached the point where statistical analysis was appropriate, but only just. Given the known dropout rate for parents of children with severely disruptive behaviours, it is unfortunate that within the timespan of the project referral procedures changed so that it was not possible to include three age groups matched by number, age and sex recruit equal numbers as had been originally planned. Most studies have too little power to detect treatment differences (Kazdin & Bass, 1989). This was true in this study where the power for the main analysis relating to child behaviour was low. In keeping with the low effect size, a post hoc calculation gave power as .2. However, attrition is a form of outcome and 'arguably the most important finding [from the project] is that the intensive method appears more effective in engaging families and reducing dropout' (anonymous external reviewer of the report on the study).

The study relied heavily on self-report measures. Parents are in a unique position to comment on change but parent perceptions are related to parent psychopathology, especially anxiety and depression, to marital discord and stressors and social support outside the home (Kazdin 1994). Reported child improvement could be due to actual change or reductions in parental stress. Reported lack of improvement could be attributable to continued or increased parent stress although the child may actually have improved. Although the use of multiple informants is advocated, these do not generally provide corresponding information (Achenbach, McConaughy & Howell, 1987; Kazdin, 1994). However, there is no gold standard

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for diagnostic criteria in any particular NHS service, most children referred for treatment clearly have significant problems.

The study was not designed to clarify whether it was the intensive nature of the delivery of service (the initial input was over a period of three days in a purpose-built environment) or the quantity of time spent with families that comprised the major difference between the two forms of treatment. This is a major consideration and would certainly be of interest to a Child and Adolescent Mental Health Service whose managers considered the outcome from the intensive group worth pursuing. 'The improvement in those of the standard group is impressive given the resources' (anonymous reviewer). There was no comparison with similar amounts of time being spent with families but spread over the timespan of the study. It was not possible, and possibly not desirable because of over-familiarity with the tests, to monitor interim improvement rates, although a learning curve for each group would have been interesting.

Comments on the Comparison of Treatments

Comparison of Treatment Content.

Both treatments were reported to be behaviourally based (Appendix V gives further details) and it is reasonable to attribute the overall positive outcome to a broadly behavioural approach. However, the introduction to this section of the thesis indicates that observation and attending skills may be important in improving outcome generally, and in helping those who would not normally respond to treatment. The sample was chosen because outcome is poor for this client group. The content of the intensive treatment included the use of video feedback which could have improved mothers' observational skills. Video feedback was only used with one standard treatment family. It is hard to judge the impact this may have had on outcome.

Both treatments made demands on parents in terms of mastering the principles of theory, systematically observing the child, implementing principles at home and attending the sessions.

The only difference between the groups at baseline was on parent-reported measures of the child's self-control. The self-control measure was included primarily to corroborate the report on more general child behaviour. All children were assessed as having severe disruptive behaviours, but examining the sample according to which children might be hyperactive was not part of the original design. It is becoming clearer that outcome might be different or different approaches more helpful for those with higher or lower degrees of hyperactivity (see Chapter One). It is possible that the intensive treatment, by format or by therapist, was particularly effective in addressing this aspect of the children's behaviour. There was no difference between the groups on self-control measures at follow-up.

Comparison of Therapists.

The effectiveness of treatment depends among other factors, on the characteristics of therapist. Even when following a manual and administering the same treatment, different therapists can produce different outcome effects (Luborsky, McLellen, Diguer, Woody, & Seligman, 1997; Shapiro, Firth-Cozens & Stiles, 1989). Some are more consistently effective and more effective than others even when administering different treatments (Beutler, 1997; Luborsky et al., 1997). The effectiveness of treatment will also depend on how well the therapy is implemented (Frank, Kupfer, Wagner, McEachran, & Cornes, 1991; O'Malley et al., 1988; Rounsaville, O'Malley, Foley, & Weissman, 1988). The standard deviations in most outcome measures in the Bangor project for Children with Disruptive Behaviours were greater in the group who received standard treatment. This would imply that therapists may have been more or less effective in delivering therapy which may have

been similar or less similar to that received by the intensive group. Therapist experience and the client's alliance and bonding with the therapist, have been shown to influence outcome (Kazdin & Crowley, 1997; Kazdin & Wassell, 1998; Orlinsky, Grawe & Parks, 1994; Weisz, Weiss, Han, Granger, & Morton, 1995).

Studies of investigator allegiance also suggest that those treatments favoured by the investigator produce stronger effects than other treatments included in the study (Hoag & Burlingame, 1997; Luborsky et al., 1999). In this study, all therapists used a behavioural approach (Appendix V), but the fact that two therapists treated those in the intensive group as opposed to eight treating the standard group makes the possibility of a therapist effect on outcome worth considering. The Project Director had a strong allegiance to the behavioural approach and only treated families in the intensive group. Although the eight professionals dealing with the standard treatment group were all experienced, there was no information about the strength of their commitment to the approach, the length of each person's experience nor how well each therapist was able to impart behavioural principles. The latter, of course, would not be possible to ascertain with current procedures, but Elkin (1999) makes a very strong case for describing therapist variables in reporting results of treatment, particularly in the context of comparative outcome studies. Elkin argues that the therapeutic alliance is an important component of many different therapeutic approaches. Webster-Stratton and Herbert's collaborative approach would be one example (Webster-Stratton & Herbert, 1994). Children whose parents have a better alliance with the therapist do better (Kazdin & Wassell, 1998; 1999). This raises questions of implications for generalisation. Implicit in these considerations is that because the therapist needs to foster good relationships as context for therapy, the attachment representations of the therapist and the client need to be considered.

Interpretation of Attrition

'Retaining cases in treatment remains a special challenge' (Kazdin, 2000). Kazdin (1996) reports that of children who begin treatment, 40-60% drop out against the advice of the clinician and most drop out early. However, Kazdin and Wassell (1998) found that although drop-outs are usually the most severe cases in a sample, 34% of dropouts still showed therapeutic improvement. There are many reasons why people may stop treatment. These include family problems, difficult living conditions, parental disagreement about treatment, treatment may be too demanding or there may be a poor relationship between patient and therapist.

The fact that contact was maintained with most of the group who received intensive treatment suggested that despite similar outcomes on almost all measures, including reports of satisfaction with services, some element(s) of intensive treatment operated to keep those participants in treatment. Eyberg, Edwards, Boggs and Foote (1998) emphasise the importance of finding ways to reduce dropout for the longer-term efficacy of parent management training. The intensive treatment did achieve this although the reasons why this happened are not clear. The lack of any difference in the satisfaction scores could well be attributed to these clients (apart from one) being first referrals and those who participated in the intensive treatment would have had no means of assessing the differences between the standard and intensive treatments. The direction and frequency of telephone contact was not recorded and may have had some influence. Also, it could be that the clients in the intensive group established closer relationships with the people who had spent three days with them at the beginning of therapy and so were more committed to the programme than those in the standard group.

Acceptability of the Service

Several factors are involved in the acceptability of the service and treatment compliance. One study (Lazaratou, Vlassopoulos, Dellatolas, 2000) found that in an outpatient child psychiatric practice (including child behaviour problems), 59% of children and families failed to comply with treatment. The type of problem presented by the child, the type of treatment, the number of sessions attended and the season of admission were found to be correlated with treatment compliance. Other factors such as the sex and age of the child, the socioeconomic status of the family, family size, parents' educational background and referral source were not. The need for the service to be acceptable to the recipient was one reason given for the hypothesised better longer term outcome for those in the group who received intensive treatment. However, measures of satisfaction showed no difference between the groups although there was different attrition in the groups. As indicated earlier, it is not possible truly to separate the effects of therapy and therapist (Kazdin, 2000) and clients' capacity for collaboration needs to be considered in relation to how acceptable they found the service. All families had to assimilate and practise techniques in the context of the relationship with the therapist and the relationship with their child.

Some Implications from Findings

The first finding with implications for services was that it was the duration of the problem which was most closely associated with reliable and clinically important change. If the duration of the problem is found to be the most telling variable in other studies where the children's behaviour is extreme, this would warrant further investigation. The lack of a control group does not allow further comment, but it would be informative if this, rather than any psychosocial or socioeconomic variables differentiated this extreme group from less extreme clinical samples. This finding supports recommendations that the earlier problems are addressed, the better the

outcome. In this study duration was reported by the mother and no attempt was made to verify the data, so this would need addressing. On the other hand, of course it makes sense that untreated problems become less tractable over time and the interaction with worsening parental mental health and dysfunctional discipline will exacerbate the family situation. The finding may be an anomaly, but if it is found to be particularly important in this client group, it is an addressable issue. There would also need to be considerable confidence in the meaning of reliable and clinical change as measured in this Project as a basis for further investigation.

It is anticipated that a follow-up study will establish how long lasting were the changes in each group. However, the current findings imply that possibly the extent of change achievable by behavioural means in this particular client group, is limited. The intensive treatment group received high strength treatment to maximise clinical impact and did not show markedly greater improvement than the standard group at nine-month follow-up. This has considerable implications for therapy with parents of children with extreme externalising behaviours. Behavioural methods are without doubt the most effective, but even intensive treatment delivered by experienced therapists did not result in reliable clinical change for the majority of these hard-to-treat families. This would imply that more attention to context might be warranted, that is, both more distal context and possibly the minutiae of parent-child interaction. Given that problems of a clinically significant level are likely to be co-morbid (Sonuga-Barke, Thompson, Stevenson & Viney, 1997) it would have been interesting to know to what extent co-morbid problems were also identified and addressed.

Although health authorities aim to provide a consistent service to deliver research-informed therapies using well-qualified people, it is never suggested that therapists are equally responsive to individual clients' needs. The client-therapist relationship may influence the extent to which a client is able to assimilate information or advice and put it into practice and this possibly more so in individual rather than

group work. In this study the therapist who treated most of the intensive treatment families was the main instigator and proponent of the approach, so therapist effects might be expected. However, the fact that outcome was not significantly different between the groups might indicate that therapists working with the standard group consciously performed at their optimal level, because of their awareness of the intensive treatment programme (Elkin, 1999, implies this possibility). Both these considerations give impetus to thinking about adult attachment issues in relation to parent training and this client group. Although it is unlikely that any therapy can be administered without involving attachment issues, addressing attachment issues specifically might improve outcome and extend the impact of the behavioural approach.

Why Look at Adult Attachment in Relation to Parent Training for Children with Severe Conduct Problems?

When most of the factors known to be associated with the occurrence and maintenance of conduct problems are considered, it becomes clear that a case can be made for the indirect influence of attachment. It is recognised that the duration and severity of the problem, parental mental health (and social isolation), attending skills and the acceptability of the treatment are associated with outcome. The associations between adult attachment and these factors will be developed later. In summary, a parent's attachment status may contribute towards making it more or less difficult for her consistently to implement the behavioural strategies which will change the relationship and balance of power which has developed with her child. Her attachment status may make it more or less difficult for her to receive adequate social support from partner and friends. It may affect her expectations from the therapist, and it may be that in their interaction, the therapist's attachment status may have some influence.

The way in which treatment leads to outcome may differ according to the parents' attachment status; outcome may be predicted through the association of different attachment categories with social factors or parental mental health; attachment status may place restrictions on what may be achieved by changing parenting behaviours. Routh, Hill, Steele, Elliott and Dewey (1995) mooted these possibilities, and their findings will be discussed later.

It is evident from the outline above, that adult attachment is not seen to relate to outcome from parent training in any direct way. It will be argued in the following chapter that the concept is meaningful in relation to outcome and, by implication, treatment, in this population. The following review of the attachment literature as it relates to the development and maintenance of conduct problems and particularly to implications for parent training, aims to clarify the separate and distinct contribution of adult attachment.

Chapter Four

LITERATURE REVIEW: ADULT ATTACHMENT -
BACKGROUND; WORKING MODELS

From this chapter onwards, the focus of the thesis is to explore whether adult

attachment could contribute to parent training treatment effects within the population

of mothers of children with extreme disruptive behaviours. Parent training takes place

within relationships (child, therapist, family, friends) and attachment representations

will be seen to be a fundamental component of all important relationships. In all

training programmes there is the underlying assumption that change in the child's

behaviour will be related to a change in the parent-child relationship.

Adult attachment theory is based on infant attachment, so this chapter will first

describe infant attachment and the behaviour associated with different infant

categories. This will then be linked to the types of parenting associated with different

infant and child behaviour. The description of adult attachment which follows will be

seen to extend the theory of infant attachment and to have broad impact on parenting.

How the measurement of adult attachment has been approached in the two main

traditions will be summarised. Chapter Five will then explore the connections

between adult attachment and children's disruptive behaviours.

Infant Attachment

Drawing on evolutionary theory and studies of non-human primates, Bowlby

described a theory of attachment behaviours which explained observed infant

behaviours in relation to a main attachment figure, usually the mother. Bowlby

(1969) postulated a powerful motivational control system which promotes the infant's

safety and regulates felt security in infancy and childhood. The infant monitors the accessibility of one (or a few) protective, older attachment figures and turns to these individuals for safety in times of stress. Almost all infants form their first attachments, which seem to arise from social interactions, by seven months, irrespective of the quality of parenting. At around this time there is a change in the infant's behavioural organisation. The infant cries when the attachment figure leaves and shows pleasure when she or he returns. Such attachment behaviours are the observable manifestations of a postulated system which itself is not directly observed (Stevenson-Hinde, 1994). Activating the system has the outcome of gaining and maintaining proximity to and contact with the attachment figure who promotes attachment behaviour by being available, appropriately responsive and actively supportive at these times (Waters, Kondo-Ikemura, Posada & Richters, 1991). The security this engenders promotes the infant's confidence in coping with new or threatening situations.

Measuring Infant Attachment

The Strange Situation procedure (Ainsworth, Blehar, Waters & Wall, 1978) is the main paradigm used to elicit those behaviours which are categorised to give infant attachment groups. The three defining elements of what comprises an attachment relationship are proximity seeking, the use of the attachment figure as a secure base and separation protest. The Strange Situation procedure involves an infant or child being left briefly by his or her attachment figure in a laboratory situation, once by himself or herself and once in the presence of a stranger. The child's response to the separation from and reappearance of the attachment figure determines the classification. These categories also form the basis for the categories of adult attachment, although methodologies for behavioural observation are not yet established.

Ainsworth, Blehar, Waters and Wall (1978) identified three main patterns of response to the Strange Situation in one-year-olds (from Main, 1996): secure, avoidant and resistant-ambivalent. These are broadly classified as secure (with the implication of resilience to normal stresses) and insecure, which comprises avoidant and resistant sub-types (with the implication of vulnerability to normal stresses). All are considered to be normal, adaptive responses. The groupings are described here with indications of the sort of parenting associated with each category and of their relationship to the later development of disruptive behaviours.

Secure Attachment

The secure infant shows signs of missing the parent on first separation and cries during the second separation. He or she greets the parent actively; for example, by crawling to the parent at once and seeking to be held. After briefly maintaining contact with the parent, the infant settles, and returns to play. The quality of caregiving associated with this style is available, responsive and warm. Home observations (Ainsworth et al., 1989) associated with this secure pattern are maternal sensitivity to her infant's signals, tender holding of the infant and contingent face-to-face interactions. There would be no prediction of severe problem behaviours from this group.

Insecure Attachment

The insecure attachment groups (avoidant and resistant-ambivalent) are seen as 'initiating pathways probabilistically associated with later pathology' (Sroufe, Carlson, Levy & Egeland, 1999). Infants classified as insecure react to separation in different ways. The avoidant infant does not cry on separation, but attends to toys or the environment throughout the procedure. He or she actively avoids and ignores the parent on reunion, and moves or turns away when picked up. The infant appears

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unemotional and does not obviously express anger. There is some evidence that the caregiving associated with this category is rejecting, rigid and hostile. Ainsworth et al. (1989) found that mothers of avoidant infants rejected their infants' attachment behaviours and avoided physical contact with them. In relation to behaviour problems, longitudinal and cross-sectional studies have shown that avoidant children seem to be more hostile and noncompliant. The Minnesota Mother-Child Project (Egeland & Sroufe, 1981; Erikson, Sroufe, & Egeland, 1985; Sroufe, 1983), which followed a high risk sample from 12 months old over a period of several years, found that in boys, infant avoidance was linked to later aggressiveness (Renken, Egeland, Marvinney, Mangelsdorf, & Sroufe, 1989). Avoidant children showed more aggression and antisocial tendencies (Erikson, Sroufe & Egeland, 1985) and higher scores on teacher judgements of depression (Garber, Cohen, Bacon, Egeland & Sroufe, 1985).

The infant classified as resistant-ambivalent is preoccupied with the parent throughout the Strange Situation procedure. He or she may seem actively angry, alternately seeking and resisting the parent, or the infant may be passive. The infant fails to return to settle or return to exploration on reunion and continues to focus on the parent and cry. Ainsworth et al. (1989) observed the mothers of infants in this group to be unpredictable, inept in holding and noncontingent in face-to-face interaction. Young ambivalent children (aged 5 to 6 years) from a non-clinical sample, presented clinical cut-off levels of externalising problems (Moss, Rousseau, Parent, St. Laurent & Saintonge, 1998).

Main and Solomon (1990) developed the category of disorganised-disorientated in addition to the three above. This resulted from an examination of 200 unclassifiable videotapes of Strange Situation behaviour. Main and Solomon suggest that 15% to 25% of infants in low risk samples belong to this category. The infant classified as disorganised-disoriented displays disoriented behaviours in the presence

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of his or her parent. For example, the infant may freeze with a trancelike expression, hands in the air, rise and then fall prone at the parent's entrance, or cling while leaning away. Apart from this sort of behaviour, the infant may otherwise fit well into one of the other categories. About 85% of parentally maltreated children fall into this category. Early experiences appear to lead to a profound lack of trust in both self and others. Hesse and Main (2000) argue that parental behaviour which alarms the infant leaves the infant unable to act. The pattern arises from the activation of competing behavioural tendencies (approach and avoidance) in response to such parental behaviour which results in the infant displaying contradictory or incomplete behaviour patterns. By the age of six, disorganised-disorientated children have usually developed either a controlling or caregiving strategy in behavioural interactions with a parent (Ainsworth & Eichberg, 1991).

Infant and Child Attachment and Pathology: Disruptive Behaviours

A study examining the association between attachment and psychopathology in samples of clinically diagnosed children with early onset conduct problems, and the relation between attachment variables and the continuity of clinical symptoms, found that all insecure patterns were higher than in a comparison group. However, attachment variables did not explain problem severity or diagnostic status just after referral or 2 years later (Speltz, DeKlyen, & Greenberg, 1999). The authors conclude that although observable attachment behaviours of preschoolers are related to the initial identification of early onset conduct problems they may not predict conduct problem status 2 years later. However, although findings are not always consistent, the majority of the research has found child attachment categories to predict and be associated with the early development of disruptive behaviours (DeVito & Hopkins, 2001; Greenberg, Speltz & DeKlyen, 1993). Greenberg et al. emphasise that attachment is one of several risk factors in the development of disruptive behaviours

and that attachment interacts with child biological factors (e.g. temperament), family ecological variables (e.g. low socioeconomic status, maternal depression) and parental management practices. They suggest two models of influence. One is where adverse factors indirectly affect the occurrence of disruptive behaviours. In the other model, adverse conditions affect the child directly as well as indirectly. Speltz, De Klyen, Greenberg and Dryden (1995) examined the contribution of attachment and behavioural variables to the prediction of clinic referral for oppositional defiant disorder in a sample of preschool boys. Child behaviour discriminated the groups more than any other variable, but they found that child attachment measures discriminated the groups more than those parent-child behaviours most strongly associated with social learning conceptualisations of disruptive problems (maternal commands and criticism and child noncompliance). Moss and colleagues, looking at older children, found that attachment significantly predicted the likelihood of school-age behaviour problems (in children between 5 to 7- and 7 to 9-years-old; Moss, Rousseau, Parent, St Laurent & Saintonge, 1998; Moss et al., 1999). The link between insecure attachment and aggression in childhood in some low socioeconomic samples (e.g. Renken et al., 1989; Sroufe, 1988) does not seem to be apparent in middle class samples (but see Teti & Ablard, 1989).

Cassidy and Mohr (2001) report that at least eight studies to date have shown infant and child disorganisation to be associated with the development of externalising disorders, aggression and clinic-referred oppositional defiant disorder. Infants classified as disorganised are most likely to be also classified 'controlling', (i.e. role-reversed and acting in a punitive or caretaking manner) in laboratory situations in middle childhood (Solomon, George & de Jong, 1995). There is evidence that this disorganised-controlling style in infancy is that most associated with later behaviour problems in preschoolers (Lyons-Ruth, Alpern & Repacholi, 1993; Lyons-Ruth, Repacholi, McCleod & Silva, 1991, although Shaw & Vondra, 1995, did not replicate

this association). Preschoolers classified as disorganised-controlling appear to be at risk for school-age disruptive problem behaviour (e.g. Greenberg, Speltz, & DeKlyen, 1993; Greenberg, Speltz, DeKlyen & Endriga, 1991; Speltz, DeKlyen, Greenberg & Dryden, 1995; Speltz, Greenberg & DeKlyen, 1990). This risk is still apparent when other family factors are controlled (Lyons-Ruth, 1996). Infants classified as disorganised-disoriented are believed to be most at risk for mental disorder (Carlson, 1998). A theoretical association between this pattern and externalising behavioural problems is believed to be mediated by deficiencies in both parental and child affect regulation and communication. Mothers tend to treat their controlling children as companions and to perceive themselves as unable to protect the child or as being helplessly out of control (Solomon & George, 1996). The inflexible, nonreciprocal, controlling strategies that become evident in disorganised-disoriented preschoolers may be seen as an attempt to bring order to a chaotic and threatening relational pattern (Wahler, 1995). However, the considerable attentional, emotional and cognitive resources required to maintain this state leave little room for learning and exploration (Lyons-Ruth et al., 1993). The association between controlling attachment style and aggressive behaviour problems found in clinical and high-risk groups, extends to middle-class nonclinic samples (Moss, Parent, Gosselin, Rousseau & St-Laurent, 1996; Solomon, George, & de Jong, 1995).

Parenting Practice and Child Behaviour Outcomes

The brief review of infant and child attachment categories has indicated an association of those categories with parenting behaviours. A considerable body of literature examines the influence of parenting on child behaviour, and particularly on children's disruptive behaviours. This will be sampled in support of the argument to be made later for the indirect and direct effect of adult attachment on disruptive

behaviours. Several studies show an association between maladaptive parenting practices and children's disruptive behaviour (e.g. Campbell, Pierce, March & Ewing, 1991; Gardner, 1989; Robinson & Eyberg, 1981). Verbal and physical discipline are usually seen to be the strongest predictors of children's disruptive behaviours (e.g. Brenner & Fox, 1998). The success of behaviourally-based parent-training programmes indicates the role of discipline practice in the maintenance of disruptive behaviours, although whether this originally developed in response to difficult child behaviour or vice versa, is not known (Anderson, Lytton & Romney, 1986). This section of this chapter will outline Baumrind's typology of naturally-occurring parenting practices in a normal population. The parenting categories produced by Baumrind do not map tidily on to infant and child attachment categories, but they give a generally-accepted paradigm of those behaviours and attitudes which tend to group together and are associated with children's social, moral and cognitive development (Baumrind, 1966; Baumrind, 1967, 1971; Baumrind & Black, 1967). The role of adult attachment in relation to what sort of discipline is endorsed and implemented by parents is addressed in Chapter Five.

Baumrind proposed three qualitatively different types of use of authority in parenting. She demonstrated that authoritative, authoritarian and permissive parenting was antecedent to particular groupings of child behaviours. Maccoby and Martin (1983) extended these to other than normal populations by looking at parenting style along the linear dimensions of responsiveness and demandingness, which cover the major differences in how parents socialise their children. Baumrind (1991) used responsiveness to describe parents' actions which foster individuality, and demandingness to describe the claims made by parents on the child to become integrated into the family.

The authoritative parent is warm and responsive, supportive of the child's autonomy and interests. The emphasis is on fostering a sense of independent responsibility in the child and reasons are provided for constraints or directives.

Baumrind described the authoritarian parent as demanding and controlling but unresponsive, and punitive if the child questions the parent's authority. The children of such parents are withdrawn and unhappy, appear anxious and insecure when interacting with peers and, when frustrated, behave in a hostile manner. Girls tend to be dependent, lack initiative and achievement motivation. Boys show high rates of anger and defiance (Baumrind, 1971). Authoritarian, power-assertive discipline is negatively related to the internalisation of moral prohibitions and self-esteem (Coopersmith, 1967; Hoffman, 1970a, 1970b).

The permissive parent is nurturant, communicative and accepting, but avoids imposing controls. This lax style may sometimes reflect the belief that such a style is good for children, but many parents lack confidence in their ability to influence their child's behaviour. Few parents were permissive in Baumrind's (1967) sample. Their children lacked control, were overly dependent and demanding, lacked sustained application in school and reacted in a disobedient, explosive manner when thwarted. The link between permissive parenting and passive, nonachieving behaviour held for boys but not girls (Baumrind, 1971). Permissive parenting is associated with aggression in preschoolers (Patterson & Bank, 1989).

The uninvolved parent (Maccoby & Martin, 1983), a category not originally explored in Baumrind's sample, is undemanding and indifferent. Such parents invest the minimum effort in their children, keeping the child at a distance, only sporadically attempting to get the child to conform. This style is associated with uncontrolled and impulsive behaviour (Block, 1971). Preschoolers are non-compliant, demanding and interfering (Maccoby & Martin, 1983). At its extreme, this is a form of neglect and adversely affects many aspects of development.

Baumrind's categories are specifically parent-focused, enabling parental characteristics to be studied independently of the child's contribution. Her consistent and repeated findings were correlational and cross-sectional and did not ascertain what factors were responsible for particular developmental outcomes. In the context of a growing awareness of the child's influence on the parent, Lewis (1981) argued that the firm control exercised by authoritative parents measures the child's willingness to obey and the positive functional communication used in such families, rather than the parent's exercise of control. Baumrind's rejoinder (Baumrind, 1983) was that conflict occurred in authoritative families, but was dealt with firmly and rationally. The question of the direction of influence between their parents and children with disruptive behaviours has been much debated (e.g. an issue of Developmental Psychology was devoted to this; Wahler, 1990). It is not within the remit of this thesis to cover these arguments. This author would agree with Wahler, that rather than seeing the balance of the relationship as the child behaving in such a way as to elicit parental responses which foster the child's status (Lytton, 1990), parental insensitivity is usually the backdrop for child maladjustment (Wahler, 1990). Wahler argued that insensitive parents will create non-synchrony, particularly with difficult babies. Inconsistent, aversive and chaotic patterns become familiar and predictable to the child, whose rule-violating behaviours may involve evoking predictable, even though aversive, feedback.

Parenting has been seen to link infant attachment and child behaviour outcomes. This chapter now proceeds to outline the concept of adult attachment, which will be seen in Chapter Five to have broad impact on the parenting described.

Adult Attachment

The role of the attachment behaviour system in adulthood has a similar function to that described in infancy. Adults show a desire for proximity to their attachment figure under conditions of stress, are more comfortable when with the attachment figure and become anxious when this figure is inaccessible. Adults seek security and comfort in their important relationships. Secure attachment relationships promote competence outside of the relationship (Ainsworth, 1991). Attachment behaviour may be less readily activated in older individuals, but throughout a person's lifespan the accessibility of the attachment figure, who is often a romantic partner or friend (Shaver & Hazan, 1994), is monitored, and he or she is turned to in times of stress. The primary attachment figure provides feelings of security and place, without which the individual feels lonely and restless. A major difference between infant and adult attachment is that the attachment behaviour system in adults is usually reciprocal. An individual both shows attachment behaviour and is an attachment figure. In addition to providing feelings of security, adult attachment relationships may include sexual bonds, companionship, sense of competence, and shared purpose or experience (Ainsworth, 1985; Heard & Lake, 1986; Weiss, 1974).

As with the formation of first attachments, the processes permitting individuals to change attachment figures need further investigation (Main, 1996). Adults' representations of attachment will be more complex than those of children, and adults may have different models for their differing roles as, for example, parent or friend. Bartholomew and Horowitz (1991) found some overlap but substantial independence in these constructs.

Measuring Adult Attachment

Ways of assessing adult attachment are still being developed and arise from two traditions.

<u>The Adult Attachment Interview</u>

The first, measured by the Adult Attachment Interview (George, Kaplan & Main, 1996), is based on the manner of responses during an interview about childhood relationships and experiences. The Adult Attachment Interview was developed to predict the Strange Situation behaviour of respondents' infants and should tap models relevant to parenting. The Adult Attachment Interview has been the main instrument for establishing the categories of adult attachment as analogues to infant attachment categories. Respondents are asked questions about their childhood and their experience of their main caregiver, and to reflect on why their parents behaved as they did and how their childhood experiences influenced their own personality. They are asked for specific memories to support these statements. The coding system relies heavily on the psycholinguistic qualities of the respondent's discourse. The interviewee is not assumed to be conscious of his or her attachment representations.

The secure, free or autonomous style is the adult equivalent of the secure category from the Strange Situation. Secure adults give accounts which are coherent, believable and internally consistent. Their manner of responding is clear and relevant. They do not idealise the past and are not angry with or preoccupied by unsupportive parents.

The insecure category comprises the dismissive and preoccupied subcategories. The dismissing category is the analogue to the avoidant category in infancy. Often respondents cannot recall childhood memories. Such adults idealise parents or devalue the importance of attachment relationships in relation to themselves, glossing over painful experience. They see themselves as emotionally independent.

The preoccupied-entangled category is the adult analogue to the ambivalent-resistant pattern in infancy. The interviews of preoccupied individuals tend to be

verbose and vague. They appear confused and seem preoccupied by their past attachment relationships.

The unresolved/disorganised/disoriented category is the analogue to disorganised-disoriented attachment in infancy. There are lapses in discourse in this group, confusion of past and present, or long silences. Lapses tend to happen most when memories of trauma are being elicited. These adults have suffered painful physical abuse or trauma and/or loss during childhood and are unable to resolve these experiences. The adult typology is different to the infant typology in that where appropriate, the unresolved category is attributed in addition to a secure, dismissing or preoccupied protocol.

(The Cannot Classify category is equivalent to the rare group of infants, also classified Cannot Classify. These adults appear globally incoherent or alternate between dismissing and preoccupied states of mind about attachment issues.)

George and West have recently produced a new developmental measure of adult attachment, the Adult Attachment Projective, which is based on analysis of responses to attachment-related drawings (George & West, 2001) The authors have shown it to be concordant with the Adult Attachment Interview, but its psychometric properties have yet to be established. If it gives similar results to the Adult Attachment Interview, it could promote a greater number of studies from this theoretical viewpoint.

The Peer/Romantic Partner Tradition

The other tradition, the peer/romantic partner tradition, relies more on self-report measurement, and is based on reports of current romantic relationships. The content of the self-report measures is explicit in terms of perceptions and views, and self-report measures are assumed to reflect the nature and operation of internal

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working models that are more accessible. Hazan and Shaver (1987) developed the first self-report measure using three adult attachment styles based on the infant Strange Situation categories and focusing on adult romantic attachment. Their discrete categories incorporated the lovestyles of previous researchers (e.g. Lee, 1973). However, categorical measures were not satisfactory conceptually because most researchers do not hold the concept as discrete at latent levels. Categorical measures also limit statistical analysis, and categories cannot show to what extent each classification is typical of any individual (Fraley & Waller, 1998).

Collins and Read (1990) and Simpson (1990) produced continuous scales based on phrases from the type descriptions in Hazan and Shaver's vignettes (1987), as did other researchers (e.g. Feeney & Noller, 1990; Kobak & Sceery, 1988; Levy & Davis, 1988; Pistole, 1989). Bartholomew and Horowitz (1991) proposed a four-style model including the Hazan and Shaver styles and adding a second kind of avoidance. Bartholemew kept the secure and preoccupied styles and described two forms of avoidance, dismissing avoidance and fearful avoidance. Secure people have positive views of themselves and others, preoccupied individuals have negative views of self but positive, albeit apprehensive, views of others. The dismissing-avoidant individual is motivated by a defensive maintenance of self-sufficiency and the category is similar to that category in the Adult Attachment Interview. Individuals who are dismissing avoidant have a positive view of self but a negative view of others. The fearful avoidant individual is motivated by a conscious fear of rejection. Such individuals have negative views of themselves and others. The two dimensions underlying the four types (secure, preoccupied, fearful-avoidant and dismissing-avoidant) are views of oneself in relationships, in terms of anxiety and dependence (positive vs negative) and views of significant others, in terms of avoidance (positive vs negative). This is illustrated in Figure 10. Bartholomew devised both interview and

self-report measures of the four styles and the two dimensions that organise them conceptually.

MODEL OF SELF
(Dependence)

		Positive (Low)	Negative (High)
MODEL OF OTHER (Avoidance)	Positive (Low)	Secure Comfortable with intimacy and autonomy	Preoccupied Preoccupied with relationships
	Negative (High)	Dismissing Dismissing of intimacy Counter-dependent	Fearful Fearful of intimacy Socially avoidant

Figure 10. Styles of adult attachment, from Bartholemew and Horowitz, 1991.

Connections between the Adult Attachment Interview and self-report romantic attachment instruments will be discussed later in this thesis.

Stability or Coherence of Attachment

Early attachment relationships form prototypes for close relationships throughout life, both for intimate love relationships and parenting. Attachment theory would predict that patterns of attachment are fairly stable in the general population (Main & Cassidy, 1988; Waters, 1978; Waters, Crowell, Treboux, Merrick & Albersheim, 1995). Along with individual experience, genetics and culture are also proposed to account for origins of differences in attachment and these would contribute to the stability of attachment. A study of a volunteer sample of 22 adult twin pairs found that genetic effects accounted for 37%, 43%, and 25% of the

variance in the secure, fearful, and preoccupied adult attachment styles, respectively, but none of the variance in the dismissing attachment style. Nonshared environmental influences accounted for the majority of the variance in all styles: 63% secure, 57% fearful, 75% preoccupied, and 71% dismissing. Shared environmental effects were negligible for all styles except dismissing (29%; Brussoni, Jang, Livesley & Macbeth, 2000).

The relevance of attachment to antisocial behaviour depends on the stability of attachment. Evidence for the continuity of attachment into adulthood comes from several longitudinal studies which have found associations from infancy to early adulthood (e.g. Hamilton, 2000; Waters et al., 1995). Klohnen and Bera (1998) found that over a period of 31 years, there was evidence of continuity in avoidant and secure women's behavioural and experiential patterns. Hinde (1989) argued that it is more appropriate to talk about 'coherence across transformation' rather than continuity in behaviour or other psychological measures, because expressions of the effects of an experience at one age can differ greatly from expressions of the same experience at other ages. This approach was agreed better to describe attachment status through the lifespan at a meeting of the American Psychological Association (Fraley, 1998), although more recently Shaver (2000) has argued that it is probably not the case that, as Shaver and Hazan's earlier research implied, adult styles grow directly out of infant styles. The longitudinal studies cited earlier as giving evidence for the association between particular attachment categories and the development of disruptive behaviours also provide data. Good stability in low-risk samples is also shown in studies of concurrent relations between attachment (reunion behaviours) and behaviour problems in preschool and early schoolage children. These also show good correspondence with infancy classifications (Main & Cassidy, 1988; Howes & Hamilton, 1992; Wartner, Grossmann, Fremmer-Bombik, & Suess, 1994). Cicchetti and Barmett (1991) found attachment to be more stable for secure than for insecure

children in non-maltreated samples. Somewhat less stability is indicated for the disorganised classification (Lyons-Ruth et al. 1991, 1993; Main & Cassidy, 1988).

There are exceptions to these findings. For example, Belsky, Campbell, Cohn and Moore (1996) found that infants did not show short term stability over six months. Major changes in socioeconomic status or child-rearing arrangements appeared responsible for discontinuity. Bowlby hypothesised that change in adult life could occur through new emotional relationships and the development of formal operational thought. Hence the individual may reinterpret the meanings of past and present experiences. The models may change if the quality of early caregiving changes (Egeland & Farber, 1984). Changes in attachment to the mother appear to be contingent on changes in the mother's circumstances. Lamb, Thompson, Gardner, Charnov and Estes (1985) reported that stability is high only when family circumstances are stable. Weinfield, Sroufe and Egeland (2000) conclude that there might be 'lawful discontinuity' in attachment security in high risk samples. They found that continuous and discontinuous groups were differentiated on the basis of child maltreatment, maternal depression, and family functioning in early adolescence. Similar conclusions were reached by Waters, Merrick, Treboux, Crowell and Albersheim (2000) who examined change in attributed attachment classification in middle class individuals over 20 years.

Working Models - Representations of Attachment

The construct of working models is used to explain the dynamic processes which maintain attachment patterns into childhood and adulthood. These models provide a way of understanding attachment as a tie that binds people across time and space and allow for a life span, developmental perspective of the attachment behaviour system. They are held to influence the way in which attachment is expressed by directing cognitive, emotional and behavioural response patterns (Bowlby, 1973;

Bretherton, 1985; Main, 1991; Main, Kaplan & Cassidy, 1985; Collins & Read, 1994).

Differences in attachment status are predicted from an individual's expectations of the availability and responsiveness of his or her attachment figure, such expectations being 'tolerably accurate reflections of the experience those individuals have actually had' (Bowlby, 1973). The nature of the underlying working models associated with different attachment styles is hypothesised to become evident under stressful conditions when processing capacity is limited and people rely on available scripts and strategies (Bretherton, 1985, 1990; Nelson, 1985).

Bowlby (1969, 1973, 1980) proposed that early experiences are consolidated as affective-cognitive constructs which guide perceptions, expectations and behaviour with attachment figures and others. Crowell and Treboux (1995) argue that a working model of attachment explains the effects of early experience on later behaviour and development; that mental representations provide a mechanism through which an individual's subjective view and experience, rather than solely the objective features of experience, can influence behaviour and development. Attachment and social learning theories are developmental, and part of Bowlby's original conception was that the development of attachment occurs through a feedback system. A child develops cognitive and affective constructs of attachment relationships during interactions with his or her caregiver. These working models about how close relationships operate are prototypical in that they are relatively stable constructs operating outside awareness which guide behaviour in relation to parents, and influence expectation and behaviour in later close relationships, particularly love relationships. Carlson and Sroufe (1995) propose that patterns of self-regulation which are established through the infant's biological predispositions and his or her caregiver's responsiveness, maintain continuity of attachment and influence the attentional, sensory, motor, affective and cognitive correlates of attachment throughout development. Working models are self-

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perpetuating because people construe the world in ways which fit them and actively

create social environments confirming representations of the self and others.

Individuals will select environments consistent with expectations about self and

others, for example in their choice of partner. Hence they contribute to the

intergenerational transmission of family and other relationship patterns (Fonagy et al.,

1991, Fonagy, 1994). Fonagy et al. have shown that infant attachment status,

measured via the Strange Situation procedure, may be predicted from the mother's

Adult Attachment Interview status in the last months of pregnancy.

Most researchers agree that people integrate more than one model into an

overall working model. Crittenden, for example, suggests that attachment

classifications are maintained through patterns of information processing which vary

as to how they integrate affect and cognition. She argued that individuals differ in

terms of the number of models and how far those models are integrated (Crittenden,

1990; 1995). She posited three mental structures: one template which receives all

information; multiple models which are not integrated; and a generalised model

possessing relationship-specific sub-models. Each meta-structure implies different

processing of social information. Main (1991) proposed that secure attachment

implies the presence of coherent metacognitive organisation of multiple models which

may themselves be inconsistent.

<u>Collins and Read's Model of Adult Attachment</u>

Collins and Read (1994) propose a default hierarchy in memory for this

network of interconnected models ranging from general representations of the self

and others to specific models for particular relationships. The complexity of this

dynamic network structure reflects differences in the amount and quality of

attachment experience and provides maximum flexibility in regulating attachment

needs.

Collins and Read propose that working models are composed of four inter-related components: memories of attachment-related experience; beliefs, attitudes and expectations about self and others in relation to attachment; attachment-related goals and needs; and strategies and plans associated with achieving attachment goals. Autobiographical memories and accounts of attachment-related experiences with parents and other significant attachment figures will be important components of working models. The model predicts differences in attributions, emotion and behaviour related to attachment style (Figure 11).
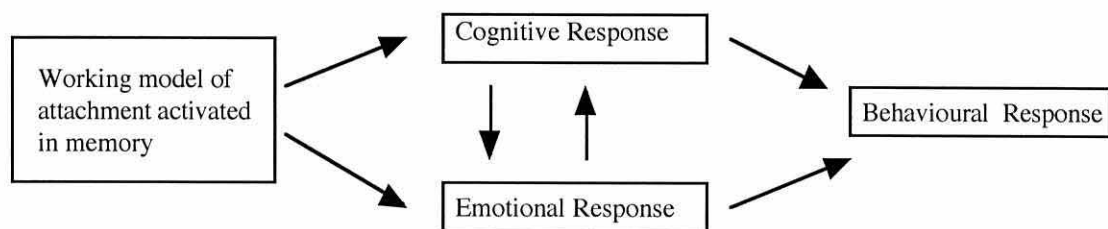
Figure 11. The functions of working models (Collins & Read, 1994)

Concerns about Terminology

Hinde (1989) fully allows the 'enormous heuristic value' of the working model in synthesising and making sense of data, but argues that the working model can too easily explain anything. He gives examples of various researchers' descriptions of working models, which include being seen as a model of another individual, and sometimes as a model of a relationship. Working models filter input from the outside world and direct motor activity. They are self-perpetuating and resistant to dramatic change, but nevertheless modifiable, conscious and/or unconscious rules for the organisation of attachment (e.g. Bretherton & Waters, 1985; Main et al., 1985). He concludes that 'It is hard to avoid the conclusion that properties are added to the working model as new phenomena require explanation,

and that at least some of the new properties are isomorphic with the phenomena they purport to explain' (p. 379). Hinde suggests that it is likely that other psychological concepts might be more parsimonious.

Rutter (1995) raises similar concerns about the uses of the term 'attachment'. He reports that it has been used 'to refer to discrete patterns of behaviour (such as proximity seeking), to a dyadic relationship, to a postulated inbuilt predisposition to develop specific attachments to individuals, and to the hypothesized internal controlling mechanisms for this predisposition' (p. 551). George and West (1999) claim that 'the definitional trend of this construct is towards a disconcerting sprawl' (p. 286).

These concerns are recognised by attachment researchers. An informal meeting of prominent attachment researchers (Fraley, 1998) agreed that the term 'attachment style' is best used for describing manifest patterns of behaviour, and the term 'working models' for describing the latent mental structures giving rise to variability in attachment styles. It was generally agreed that the concept of working models is most useful when referring to organised strategies for regulating emotion, attention, and behaviour with respect to attachment concerns. This was on the grounds that the concept of working models was of relatively little use in describing the psychological dynamics of attachment because the concept evokes conscious and evaluative belief systems (positive/negative models of self/others) which operate with little input from motivational and defensive goals or over-learned strategies of behavioural and emotional regulation. However it was suggested that the concept was broad enough to refer to both declarative and procedural aspects of cognition and behavioural/emotional regulation.

Adult Attachment Analogues to the Strange Situation

Adult attachment analogues to the Strange Situation are being developed, both in the laboratory and in real-world situations. These involve access to proximity-related thoughts while under stress, increased physiological arousal when imagining the ending of their close relationships (Fraley & Shaver, 1997), and behavioural manifestations.

Stress has been shown to affect the accessibility of proximity-related thoughts. Mikulincer, Birnbaum, Woddis and Nachmias (2000) found that the priming of a stress word led to increased accessibility of proximity themes regardless of attachment style. They presented participants with a stress-inducing word ('failure', 'death', 'illness') or a neutral word immediately before each target word in a lexical decision task where reaction times were measured. However, worries about separation and rejection were mainly activated only among insecure individuals. Anxious-ambivalent people showed high accessibility to proximity themes and worries in both neutral and stress contexts. Avoidant individuals' reactions were similar to those of secure persons except that they showed no accessibility to proximity worries even after the priming of a semantically related word, and reacted with high accessibility to these worries upon the addition of cognitive load (hearing and repeating a story at the same time as performing the decision task).

In keeping with Bowlby's theory, the adult attachment behavioural system has also been shown to be activated when adults seek a secure base, are threatened with separation, illness or death. Collins and Feeney (2000) used an attachment theoretical framework to investigate support-seeking and caregiving processes in intimate relationships, under conditions of normal, not extreme stressors. They videotaped 93 dating couples while one member of the couple disclosed a personal problem to his or her partner. Results indicated that when support seekers rated their problem as more stressful, they engaged in more direct support-seeking behaviour, which led their

partners to respond with more helpful forms of caregiving. The individuals seeking support then felt cared for and their mood improved. Collins and Feeney also found that avoidant attachment predicted ineffective support seeking, and anxious attachment predicted poor caregiving, possibly because anxious adults who value closeness and nurturance, tend to be preoccupied with their own attachment needs. This may limit their ability to attend to the needs of others, so they are likely to be less effective caregivers. Participants' perceptions of their interaction were influenced by relationship quality and attachment style.

The nearest analogue to date was conducted by Fraley and Shaver (1998) who observed separation rather than reunion behaviour. Based on the theory that the attachment system is activated under conditions which elicit behaviours related to maintaining proximity, these researchers conducted a naturalistic observation study of adult attachment dynamics in couples separating at an airport. Couples completed a questionnaire used to assess the length of their relationship, their attachment style, and how distressed they were feeling. Their attachment behaviour (e.g. holding each other, crying, turning to watch the departing figure) was then unobtrusively observed. Fraley and Shaver found that separation status (separating or flying together) and the duration of the relationship were associated with the expression of attachment behaviour. Women classified as anxious were more likely to report distress before separation but this was not associated with differential attachment behaviours. Avoidant women were more likely to avoid close contact and pull away from their partners if they were separating. Findings for men were not clear. Results indicated that separation behaviours in infants are similar to those in adults. In this study and in Simpson, Rholes and Nelligan (1992), anxiety was not related to attachment behaviour. Fraley and Shaver suggest that anxiety and avoidance play different roles in how women regulate emotion and behaviour. They hypothesise that anxiety underlies the distress related to separation, and avoidance regulates how they behave

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to maintain proximity. This is based on a model of the functional organisation of the attachment system which is purported to have two major components. The appraisal component, Anxiety, influences individuals' tendencies to feel insecure or anxious about abandonment. The behavioural component, Avoidance, influences readiness to seek closeness with others. Fraley and Shaver argue that although anxious individuals will experience more anxiety, their attachment behaviours will not necessarily be activated. In a stressful situation, the highly anxious person could either turn to a partner for comfort or pull away.

These findings are supported by a self-report study of the real situation of leaving home, which involves separation in a developmental context. Mayseless, Danieli and Sharabany (1996) found that secure young adults reported coping well with this separation and prioritised their current romantic partner while keeping close contact with their mothers. Ambivalent individuals did not have partners, reported less committed relationships and reported that even mild separations resulted in strong attachment reactions. More severe separations elicited considerable anxiety, rejection, and self-blame.

This chapter has introduced the concept of adult attachment and attempts to measure the construct, by firstly introducing infant attachment and how that is measured. The link between infant attachment and disruptive behaviours was emphasised and disruptive behaviours were shown to be associated with particular groupings of parenting practices. Adult attachment was then described, after a promise that, among other associations, it would also be shown in a later chapter to impact directly and indirectly on both parenting and disruptive behaviours. This is the remit of Chapter Five. There are quite a few terms for attachment patterns and because they do not always translate readily into one another this chapter ends with a table of

roughly equivalent attachment terms (Table 9; Brennan, personal communication, May 2001). This can be referred to, if required, during the following chapter.

Table 9. Attachment Terminology - Approximately equivalent labels†.

	Babies		Adults	
	Ainsworth	Adult Attachment Interview	Hazan and Shaver	Bartholemew
Psychological approach	Developmental	Developmental	Social/ personality	Personality
Attachment category	secure	secure	secure	secure
	anxious-avoidant	dismissing	avoidant	dismissing
	anxious-resistant	preoccupied	anxious-ambivalent	preoccupied
	anxious-ambivalent			
	disorganised/ disoriented*	unresolved*		fearful*

Ainsworth et al. (1978) proposed three categories at first, and then a fourth type was added. These were derived from the child's behaviour in the Strange Situation procedure.

Mary Main's Adult Attachment Interview (first reported on in Main, Kaplan, & Cassidy, 1985) proposed three main types of adult attachment, and a fourth type (or a secondary category) derived from coded transcripts of 1-hour long interviews of parents of babies seen in the Strange Situation 5 years earlier.

Hazan and Shaver (1987) proposed three types of adult romantic attachment style, closely modelled after Ainsworth's original three types.

Kim Bartholomew created labels corresponding to her interview and self-report measures. She studied 'close' and not just romantic relationships.

*Brennan states that although the Adult Attachment Interview unresolved style and Bartholemew's fearful style, cannot really be considered equivalent, they are closer to each other than to anything else.

†The use of approximately equivalent labels has been debated by George and West (1998) who stress the 'vast differences in the conception of the attachment construct and in the application of the theory' (p. 285).

Chapter Five

LITERATURE REVIEW: HOW ADULT ATTACHMENT RELATES TO
FACTORS IMPLICATED IN THE DEVELOPMENT AND MAINTENANCE OF
DISRUPTIVE BEHAVIOURS AND TO PARENT TRAINING

A growing body of evidence correlates naturalistic observation and

experimental research with Adult Attachment Interview and self-report attachment

classifications. The individual differences component of romantic adult attachment

theory has given rise to over 200 studies in recent years, most of which have

confirmed and extended the predictions of the theory (Shaver, 2000). Theoretically

predictable relationships have been found between attachment measures and the

physiological regulation of emotion; mental and physical health; personality traits;

perceptions of self and others; relationship quality; and processing of attachment-

related information. There is also evidence for an association with adult intelligence.

It is the aim of this chapter to muster the evidence from these studies which

contributes to understanding the relationship between adult attachment, children's

disruptive behaviours and parent training.

Before describing findings linking adult attachment and other factors implicated

in the maintenance of disruptive behaviours, it is important to emphasise that although

there are associations, attachment theory is a theory of emotion regulation in terms of

how maintenance of proximity and exploration are controlled, and not a theory of

parenting. Greenberg, Speltz and DeKlyen (1993) outline these separate constructs of

attachment and parenting. They propose that disciplinary conflicts between parent

and child reflect both social learning components and the operation of the attachment

system together with the effects of attachment history. They argue that although

attachment theory may sometimes provide context for how best to understand those

processes leading to disruptive behaviours (as described by Patterson, 1982),

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attachment theory is conceptually different. The attachment system is activated when the individual is in need of a secure base, so its role in the parent-child relationship is specifically related to physical and emotional availability and closeness. Parent management and socialisation processes are also integral to parenting. Greenberg, Speltz and DeKlyen argue that because attachment processes begin earlier than parent management processes, and because the warmth and responsiveness dimension associated with attachment may be separate from parental control, they should be considered to be different. However, it is in the context of a warm and sensitive relationship that the strategies involved in behaviour management are most effectively implemented.

The caregiving behavioural system is also seen by attachment theorists as different to the attachment system, although complementary to it. The caregiving behavioural system operates in concert with other parental behavioural systems, such as exploratory and fear systems, and also together with the child's behavioural systems (Cassidy, 2000). Hence, parent and child maintain between them a safe degree of proximity so that when the caregiving system is relatively activated, the child's attachment system can be relatively deactivated.

Cook (2000) argues that although attachment theory focuses on how internalised models of relationships affect interpersonal outcomes, it is primarily a theory about how interpersonal processes affect social and cognitive development. Cook measured attachment security in 208 middle class families (2 parents and 2 children) and concluded that attachment security is relationship specific, that characteristics of partners affect attachment security, and that security of attachment is reciprocated. The author concludes that greater emphasis should be placed on the interpersonal sources of adult attachment security.

As discussed in the previous chapter, attachment style differences in behaviour result from a combination of cognitive processing bias and emotional response

tendencies. Felt security in close relationships is the goal of secure and insecure adults but this is achieved or approached in different ways and adults with different attachment styles will draw from different behavioural repertoires. The cognitions, personality traits and behaviour associated with different adult attachment styles are broadly summarised here before going into more detail relating these to the factors implicated in the development and maintenance of disruptive behaviours in children and the proposed association of different attachment styles with response to parent training.

Summary of the Cognitions, Personality and Behaviour Associated with Different Attachment Styles

Secure attachment is linked with self-confidence and positive affect. It means better general adjustment and resilience to stress. It is likely that secure individuals do not readily get caught up in ways of thought or behaviour which lead to distress and that they appraise stress less negatively. They show a highly differentiated and integrated self schema with low discrepancies between different personal domains. They have a realistic problem-solving approach to difficulties. Main (1991) writes that the mental processes of secure individuals are more flexible and more ready for examination. This flexibility allows them to adjust to change. The positive attitude of individuals with secure representations extends to processing and incorporating new information (Mikulincer, 1997). Such individuals can tolerate unpredictability, disorder and ambiguity and are reluctant to endorse rigid beliefs. Mikulincer (1995) showed that secure individuals have more balanced, complex and coherent views of themselves. Secure adults seek a balance of closeness and autonomy. They can maintain supportive social relationships and are appropriately and sensitively responsive to their children. They are generally trusting. Secure adults perceive themselves as competent, and tend to have a favourable view of their children. Mothers with secure attachment representations tend to have secure infants.

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Adults with insecure attachment representations will tend to see themselves as unlovable and as incompetent in caregiving relationships. They will have a lower tolerance level for unwanted behaviours and will tend to have a perception of the child as unmanageable. They will be less effective teachers. They will be less satisfied with intimate social supports, and show more signs of psychopathology. Dismissing or avoidant mothers tend to idealise their own parents or devalue the importance of attachment relationships in relation to themselves. Avoidant adults will need to maintain distance (e.g. Klohnen & Bera, 1998). It would appear that in contrast to findings with infants, dismissing individuals are not simply concealing covert distress. Fraley and Shaver (1997) found that dismissing-avoidant individuals could suppress activating their attachment systems. They will not be appropriately responsive to the child as an infant. Dismissing mothers will report comparatively little psychiatric distress or anxiety, may be less aware of their difficulties or be unwilling to admit them. They tend to insist on independence and avoid acknowledging distress. Dismissing mothers would be less likely to benefit from discussing childhood experiences. Haft and Slade (1989) found that dismissing mothers tended not to respond to their child's negative affect and were less warm and supportive. These mothers tend to respond to the child in an authoritarian, hostile way. They hold relatively more rigid, simplistic models of others and have a more negative orientation towards their children and the parental role (Rholes, Simpson & Blakely, 1995). They tend to have insecure-avoidant infants.

Preoccupied mothers are likely to be still involved with and preoccupied by their past relationships. They may be overly dependent on their partner or even on their child. They will report more psychiatric distress and anxiety. The need of anxious ambivalent adults for approval and their fear of rejection may lead to them seeking extreme intimacy and lower levels of autonomy. They tend to respond inconsistently to both negative and positive affect (Haft & Slade, 1989) and are

inconsistent in many ways including limit setting. Because such parents may be ambiguous in their communication with their children, the children tend to stop listening or paying attention (Bugental, Lyon, Lin, McGrath & Bimbela, 1999). They may have unrealistic expectations from the child, and may try to use the child to fulfil their own attachment needs. These mothers tend to have insecure resistant infants.

In a series of studies, Mikulincer and colleagues have examined how attachment style influences affect regulation, interpersonal losses, personal failure, parenthood-related stressors, coping and reactions to personal death, military and war-related stressors, and chronic pain. They used real and extreme situations for some studies. For example, they found differences in emotional regulation between students with different attachment styles in their response to missile attacks in the Gulf War. Those students classified ambivalent and living in very dangerous areas, reported more distress than secure individuals. They found that secure people were more able to cope with pain, were more problem-focused and used fewer emotion-focused strategies than avoidant and anxious-ambivalent individuals. In their coping strategies, secure people turned more to others for support whereas ambivalent people used more emotion-focused ways of coping and avoidant people more distancing strategies (Mikulincer, Florian &Weller, 1993).

The remainder of this chapter will provide evidence for the argument that adult attachment is clearly implicated in most of the factors discussed in Chapter One which influence the development and maintenance of disruptive behaviours.

What evidence is there for a connection between adult attachment status and children's disruptive behaviours? Consistent links have been found between adults' working models of their early attachment histories, their parenting behaviour and their children's diagnostic (and attachment) status (e.g. Crowell & Feldman, 1988; Crowell,

O'Connor, Wollmers, Sprafkin & Rao, 1991; DeKlyen, 1992, cited in Greenberg, Speltz & DeKlyen, 1993; van IJzendoorn, 1992). Crowell et al. framed this in terms of 'parent-child attachment relationships'. Their study examined mothers' supportive presence, quality of assistance, warmth, involvement and organisation, in a semi-structured interaction with their children (aged 5 to 11). The children were rated on affection, negativity and avoidance; on persistence and self-reliance; and on compliance, separation anxiety, attention shifts, activity level and overall experience of the session. Both parents and teachers completed rating scales on the children's externalising behaviour, inattention and hyperactivity. The children also rated themselves as to how depressed and/or anxious they felt. Mothers whose Adult Attachment Interview results classified them as secure appeared to be emotionally available to their children. The mothers were supportive and well-organised with their children, who reported themselves as low in anxiety and depression. Observers rated these children as competent and low in symptomatology. Insecure mothers appeared relatively unresponsive. They were unsupportive and cool towards their children. Children of mothers classified dismissing, showed greater overall symptomatology and more externalising behaviours as rated by parents and teachers outside of the interaction session. They reported higher levels of distress. These findings are in keeping with attachment theory. The dismissing classification would predict a mother rejecting her child's sadness, hurt and anger. The child therefore inhibits displaying these and develops a pattern of avoidance in affect-laden situations with the mother. This restriction of the expression of attachment behaviours and stress-related emotions is associated with distressed affect and aggressive behaviours, particularly in settings which are not attachment related, such as at school or among the child's peer group (Main & Weston, 1981).

The case for a directional influence from adult attachment to child behaviour problems is growing. Van IJzendoorn suggests that children's aggressive behaviour

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may be a concomitant of intergenerational transmission of insecure attachment patterns (van IJzendoorn, 1992). DeKlyen (1996), examining the relationship between adult attachment representations and children's disruptive behaviour, found that more mothers of children in a disruptive clinic group were insecure (mostly unresolved) than in the control group. In a study examining the association between maternal working models, marital adjustment and the mother-child relationship, Das Eiden, Teti and Corns (1995) found that mothers' working models of attachment and marital adjustment were associated interactively with child security and child behaviour.

The factors implicated in the development and maintenance of disruptive behaviours described in Chapter One will all influence the process of therapy and all have some association with adult attachment.

How is Adult Attachment Associated with Factors Known to be Implicated in the Development and Maintenance of Disruptive Behaviours?

Chapter One introduced the connections between children's behaviour problems and factors identified as giving rise to and maintaining those problems. Here the association between adult attachment and those factors will be developed.

Social Context

Attachment representations show some association with socioeconomic status. From a meta-analysis of 33 studies using the Adult Attachment Interview, van IJzendoorn and Bakermans Kranenburg (1996) found that mothers from low socioeconomic groups more often showed dismissing attachment representations and unresolved loss or trauma. Aspects of socioeconomic disadvantage are implicated in mental health. It is not appropriate to look at those relationships here, but as a brief

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summary of the impact of socioeconomic disadvantage on mental health, a recent population-based cohort study (N = 7,726) found that financial strain was a better predictor of future psychiatric morbidity than poverty and unemployment, and all contributed to the maintenance of mental health problems (Weich & Lewis, 1998). Predictions relating to socioeconomic deprivation would be that individuals who are rated secure would cope better with the stresses associated with socioeconomic disadvantage than individuals rated insecure. Also, they may be better able to extricate themselves from socioeconomic disadvantage because of their greater emotional competence.

<div align="center">Distal Parental Factors</div>

Social Isolation

Attachment style is associated with perceived support, readiness to seek support and feelings of loneliness. Security of attachment is positively related to a variety of measures of relationship quality, satisfaction, happiness and enjoyment (Collins & Read, 1990; Feeney & Noller, 1990; Hazan & Shaver, 1987; Kirkpatrick & Davis, 1988; Simpson, 1990). Secure individuals perceived higher levels of emotional and instrumental support from parents, friends and romantic partners and they also reported seeking more emotional and instrumental support than did avoidant and ambivalent individuals (Florian, Mikulincer, & Bucholtz, 1995; Ognibene & Collins, 1998). Insecure as opposed to secure attachment is related to loneliness (Hazan & Shaver, 1987).

Individuals with a more secure attachment style report having larger and more satisfying social support networks as opposed to individuals with a more anxious or a more avoidant attachment style. Anders and Tucker (2000) found that global deficits in interpersonal communication competence could account for the smaller social

support network sizes and lower levels of satisfaction among both more anxiously attached and more avoidantly attached individuals. The lower support satisfaction among more anxious individuals could be uniquely accounted for by a lack of assertiveness in social interactions. For more avoidantly attached individuals, smaller network sizes could be uniquely accounted for by lower levels of self-disclosure, and less support satisfaction could be uniquely accounted for by a lack of assertiveness in addition to lower levels of self-disclosure.

Those adults whose representations are termed avoidant and anxious-ambivalent are more anxious and hostile than secure adults (Kobak & Sceery, 1988) and have more negative and mistrusting views of the social world and human nature in general (Collins & Read, 1990). The lack of personal disclosure associated with avoidant representations would indicate that the range of friendships acceptable to and usable by avoidant individuals would be limited. The deep desire of avoidant individuals to avoid emotional dependence isolates them from awareness of their own emotional needs and those of others. This limits their capacity for developing truly intimate relationships. They may fail to seek support because they believe that none is forthcoming or because they want to retain independence. Through being possessive or using controlling behaviour they may alienate possible helpers. Avoidant individuals may tend to form negative first impressions which are resistant to change. They will have relatively more rigid, simplistic models of others (Florian et. al., 1995; Green-Hennessy & Reis, 1998) and will tend to be idealistic. Avoidant individuals may reject help because they erroneously perceive criticism, hostility or malevolent intent (Rholes, Simpson & Grich Stevens, 1998). Ognibene and Collins (1998) found that preoccupied individuals sought support in times of stress but also tended to use escape/avoidant strategies. Both dismissing and fearful young adults were less likely to seek support and would distance themselves. The authors

concluded that for individuals with secure attachments, the perception of support mediated the relation between attachment style and coping strategy.

Crittenden (1990) argued that those with a single generalised representation metastructure would be less able to absorb new (social) information and to modify existing models. Green-Hennessy and Reis (1998) substantiated these findings in a study examining openness in processing social information among attachment types. Using impressions of a hypothetical other, these authors found that avoidant individuals were less open to new information than were secure subjects. They also found some support for their hypothesis that avoidant individuals perceive others in a way which is less open than secure individuals. Avoidant individuals also differentiated their representations less than did either secure or anxious-ambivalent individuals. They were prone to overly simplistic cognitive models of other people. Miller (1996) studied the relationship between social flexibility and anxious attachment. Participants wrote about positive versus negative events. They then gave responses to several interpersonal conflict situations. Results indicated that anxious-ambivalent attachment could limit social flexibility by interfering with information processing in complex social situations. Miller states that results support Collins and Read's (1994) model where attachment-related memories influence cognitive response (including selective attention, encoding and retrieving).

Fear of negative evaluation would also play a part in the readiness of anxious-ambivalent individuals to make and use social relationships. Anxious ambivalent individuals hold more negative self-views than secure individuals (Bartholemew & Horowitz, 1991; Collins & Read, 1990; Mikulincer, 1995). Although they want acceptance, they may be more anxious about social relationships. Mikulincer and Horesh (1999), testing the hypothesis that projective mechanisms underlie attachment style differences in how others are perceived, asked participants to name actual self traits and unwanted self traits. The researchers then examined how impressions about

new individuals were formed, and how easily participants could retrieve memories of known and fictional individuals whose features had been learned. The authors concluded that in anxious-ambivalent individuals actual self-traits were influential in impression formation, memory retrieval and inferences about others. In avoidant participants, it seemed that unwanted self-traits were projected.

Asendorpf and Wilpers (2000) showed attachment security and available support to be closely linked within particular relationships. They found that longitudinal changes in attachment and support were correlated within but not between relationships. Cook (2000) and La Guardia, Ryan, Couchment and Deci (2000) also found variability in attachment across relational partners. Mayseless, Sharabany and Sagi (1997) found differences in attachment concerns of mothers in relation to partner and best friend. Fear of closeness was related to less intimacy with partner and fear of abandonment was related to less intimacy with best friends.

Parental Mental Health Difficulties

Psychological resources are the main and manifest part of the resilience or vulnerability associated with adult attachment.

Depressed mood.

Direct links are indicated between maternal depression, negative cognitions and parenting impairments (Caplan et al, 1989; Christensen, Phillips, Glasgow & Johnson, 1983; Downey & Coyne, 1990; Wolkind & DeSalis, 1982; Griest, Wells & Forehand, 1979; Rickard et al., 1981; Schaughency & Lahey, 1985). Attachment theory offers a framework which supports and enhances the findings relating adult depressed mood and children's disruptive behaviours. Pianta, Egeland and Adam (1996) using the Adult Attachment Interview, examined the relationships between attachment status and psychiatric symptomatology in new mothers in a sample at high risk because of poverty. Results were consistent with participants' attachment status.

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All had high levels of symptoms. Within the group, as would be predicted, the dismissing group scored lowest on anxiety, showed comparatively lower levels of distress and stressed independence. Preoccupied participants scored highest on psychiatric symptoms indicating perceived distress and relationship problems. The scores of the secure/autonomous group fell between those of the others on most scales. The authors conclude that the different symptom patterns found in the study are congruent with adult attachment status as 'an index of self-representation and as a set of strategies for processing emotions and thoughts related to distress and to attachment relationships' (Pianta, Egeland & Adam, 1996, p. 273).

Mikulincer and Orbach (1995) found that in contrast to students rated secure by self report, anxious-ambivalent students could easily remember negative memories, could not repress negative affect, reported high anxiety and could not stop the spread of emotion. Avoidant people reported high levels of defensiveness and could not easily recall negative memories. Collins (1996) reported that people with ambivalent models explain events more negatively and report more emotional distress, people with avoidant models explain events in more negative ways but do not experience such distress. People with negative cognitive styles tend to use negatively toned information processing about themselves when they encounter stressful events. Alloy et al. (1999) found evidence suggesting that negatively toned self-referent processing occurs in nondepressed individuals who are vulnerable to depression because of their negative cognitive styles. In both individuals who are depressed and those with negative self-schemata, perception, interpretation and memory of personally relevant events are biased. Negative cognitive styles increase liability to depression. Insecurity in attachment is associated with negative affect (Simpson, 1990).

Adult attachment has been shown to be associated with individuals' assumptions and attributional style. Secure individuals have more positive views of self and others. Anxious ambivalent individuals have more negative self-views than

secure individuals (Bartholemew &Horowitz, 1991; Collins & Read, 1990; Mikulincer, 1995). Andersson and Perris (2000) found a negative relationship between measures of secure attachment and dysfunctional assumptions scores, and a positive association between measures of insecure attachment and dysfunctional assumptions scores. The Dysfunctional Attitude Scale used was designed to measure patterns of maladaptive thinking held by depressed individuals (Andersson & Perris cite A. N. Weissman & A. T. Beck's presentation at the Annual Meeting of the Association of Behavior Therapy, Chicago, 1978, as the reference for this scale, p. 49). White and Barrowclough (1998) found that the personal-to-child dimension was the attributional variable most strongly associated with depression. They found that depressed mothers made more causal attributions about the behaviour of their problematic preschoolers than did non-depressed mothers. These mothers perceived the causes of their children's behaviour to be more stable and more controllable by the child than their non-depressed counterparts. They also appeared to make more internal attributions about themselves as the cause of their children's problem behaviour than non-depressed mothers. The authors suggested that attributions may mediate coping responses and hence may influence parenting behaviour.

Other expressions of mental ill health such as alcohol misuse and eating disorders would also seem to be informed by adult attachment representations (Brennan, Shaver, & Tobey, 1991). Mental health is associated with perception of social support. Cramer, Henderson and Scott (1997), using the GHQ as their measure of mental health in 225 adults, found that psychological distress was related to desiring more rather than less support.

Relationship with partner

Individuals are very likely to look to their partners to fulfil their attachment needs. The relationship may become more important when a mother is trying to cope with her disruptive child and, apart from needing the partner's support in this coping, the emotional stress would be predicted to emphasise her attachment needs. The relationship with her partner is held to be influential in how a mother feels towards and manages her child and a mother's attachment representations will have some influence within this relationship. Anxiety about relationships appears to predict behaviour during conflict for both husbands and wives. Attachment theory offers an additional direct route.

There is evidence that individuals with different attachment representations will feel and behave differently in their close relationships. Levy and Davis (1988) found that a secure style predicts positive relationship characteristics and constructive approaches to conflict, but insecure styles predict negative characteristics. Whisman and Allan (1996) found convergence between attachment style, relationship beliefs and attributions in the relationship. Ambivalent individuals have been found to show greater signs of distress related to disagreement and conflict with attachment figures (Feeney & Noller, 1996). Mikulincer (1998), examining the sense of trust in close relationships, found that secure as opposed to insecure individuals, felt more trust towards their partner, accessed more trust-related memories and reported more instances where trust was featured. They were also more constructive in dealing with the violation of trust. For all attachment groups, including avoidant individuals, the attainment of intimacy was the main trust-related goal. Avoidant individuals reported aiming for control. Hazan, Zeifman and Middleton (1994) found that avoidant adults were less likely to show close physical contact, hold hands or gaze into the eyes of their romantic partners.

Simpson, Rholes and Nelligan (1992) videotaped couples in an anxiety-provoking situation where it was expected that the female partner would take part in an aversive experience. In terms of support giving and seeking, they found differences between members of couples rated secure and avoidant on physical contact, supportive comments, and attempts to seek and give emotional support. Avoidant people are not likely to use partners as sources of reassurance in anxiety-arousing situations. Simpson et al. found that women with more secure attachment turn to partners for reassurance when upset whereas more avoidant women withdraw. Individuals with avoidant attachment styles tended to show signs of distress in situations that might decrease the psychological distance from attachment figures (Rholes, Simpson & Grich Stevens, 1998). These findings are in keeping with those from the Collins and Feeney (2000) study reported towards the end of the previous chapter.

Mikulincer and Arad (1999) tested cognitive openness in close relationships using a paradigm of exposing participants to information which disconfirmed their expectations. They measured changes in participants' perceptions of the partner and found secure individuals to show more cognitive openness. These authors emphasise the implications of the chronic and contextual aspects of attachment working models for information processing.

Secure adults have longer-lasting relationships than avoidant adults and tend to maintain relationships with secure partners. (Kirkpatrick & Davis, 1994; Kobak & Hazan, 1991). The ability of anxious ambivalent individuals to maintain relationships is less clear. Klohnen and Bera (1998), looking at the behavioural and experiential correlates of attachment over a period of 31 years, found that avoidant women had less happy and less steady relationships.

Resilience to stress is a defining factor in attachment classifications and results

from many of the studies relating to adult attachment and mental health are also

relevant here. Creasey and Reese (1996) found that in nonreferred families, child

behaviour problems and nonparenting stress were both correlated with parenting

stress, but child behaviour problems played a much stronger, predictive role. Adult

attachment is a valid predictor of the way people cope with stressful events (e.g.

Hazan & Shaver, 1987). Secure people deal with distress by acknowledging it,

enacting instrumental constructive actions and turning to others for emotional and

instrumental support (Bowlby, 1988; Kobak & Sceery, 1988; Shaver & Hazan,

1993). Securely attached individuals are more tolerant of stressful events and can

access unpleasant emotions without being overwhelmed. In dealing with stress they

tend to rely on problem-focused and support-seeking strategies (Lazarus & Folkman,

1984).

Avoidant individuals will restrict acknowledgement of distress, inhibit emotional

display, deny negative affect and memories, devalue events which may cause painful

feelings and adopt 'compulsive self-reliance' (Bowlby, 1973; Hazan & Shaver, 1987;

Kobak & Sceery, 1988; Main et al., 1985; Mikulincer, Florian, & Tolmacz, 1990;

Shaver & Hazan, 1993). Mikulincer and Orbach (1995) argued that avoidant persons

inhibit accessibility to unpleasant affect and thoughts, erect barriers against internal

sources of distress, and escape from any direct or symbolic confrontation with life

adversities. Dismissing adults remain detached because of the defensive manner in

which the systems mediating their memory and attentional processes and social

behaviour are organised. They deal with distress by relying on distancing or

withdrawal strategies (Lazarus & Folkman, 1984). Fraley and Shaver (1997) found

dismissing avoidant adults seemed to have the capacity to disengage components of

their attachment system. When asked to suppress thoughts of separation and loss

they wrote less about abandonment in subsequent stream-of consciousness reports. Fraley, Garner and Shaver (2000) also found that avoidant adults initially encoded less emotional information (from a taped interview about attachment-related matters), although their forgetting took place at the same rate as non-avoidant adults. There is an underlying anxiety which reflects a failure to achieve a secure base with attachment figures. Normally avoidant individuals maintain adequate functioning and are difficult to differentiate from secure individuals by behaviour and mental health. However, when facing serious stressful events they become very distressed. Fraley and Shaver (1997) suggest that avoidant individuals are not at risk for health problems from inhibiting the expression of their latent attachment-related anxieties, because covert arousal is more unlikely in the first place. Self-reported low levels of symptomatology tell little about how symptomatic individuals are (Shedler, Mayman & Manis, 1993). Low levels were reported both by those who appeared unsymptomatic by other assessments, and by those who appeared highly symptomatic. However, high levels were reported primarily by those appearing symptomatic on other assessments. Shelder et al. argued that defensive exclusion among some truly symptomatic individuals leaves them indistinguishable from unsymptomatic others. They concluded that in self-report symptom reporting, willingness to acknowledge vulnerability would probably be related to attachment organisation. Physiological responses to a stressful laboratory task have been demonstrated to differ across attachment groups according to the presence or absence of the participants' romantic partner. Feeney and Kirkpatrick (1996) reported that preoccupied individuals separated from their partners showed faster heart rate and higher blood pressure than those who were not separated. Avoidant and anxious individuals showed higher levels of sympathetic nervous system activity if the partner-absent condition came before the partner-present condition.

Anxious-ambivalent individuals show high reliance on passive, contemplative and emotion-focused coping (Lazarus & Folkman, 1984). They deal with stress by directing attention towards distress in a hypervigilant manner and ruminating on negative thoughts, memories and affect (Kobak & Sceery, 1988; Mikulincer & Orbach, 1995; Shaver & Hazan, 1993). They cannot repress negative emotions and therefore cannot limit the spread of distress to other areas of their lives (Mikulincer & Orbach, 1995).

The preceding sections have demonstrated links between adult attachment and socioeconomic experience, mental health, including depression, more general mental health and parenting stress. It has been shown that individuals with different attachment styles will be likely to construct and construe their experiences differently, and are likely to make different sorts of attributions concerning themselves and others. Adult attachment is likely to be connected with parenting via these associations and also more directly. The following section gives examples from studies of how people with different attachment representations view parenthood before they have children, how they experience birth, and the sort of mothering they provide.

Adult Attachment and Parenting

Rholes et al. (1997) found that students differed according to attachment style in their desire to have children, how they thought of themselves as parents, and what they thought their children would be like. In comparison to students with secure attachment representations, those with avoidant and anxious-ambivalent models revealed more negative models of parenthood and parent-child relationships. The authors argue that working models of being a parent and the relationship a parent is likely to have with the child, are present well before marriage and parenthood.

Attachment theory posits that insecure attachment styles that exist prior to marriage, predispose adults to less satisfactory relationships and independently to poorer parenting and insecure parent-child relationships.

In relation to becoming a parent, Mikulincer and Florian (1999) found that during the last six months of pregnancy, secure attachment played a positive role. Attachment style moderated the impact of the birth of her first child on a mother's mental health. Secure individuals as new mothers were more resilient to the birth of the first baby, and showed better mental health. These mothers found the situation less threatening and used more problem-focused strategies. Alexander, Feeney, Hohaus and Noller (2001), looking at attachment style and coping resources as predictors of coping strategies in the transition to parenthood, found support for a theoretical model proposing that attachment is predictive of coping resources and appraised strain. Priel and Besser (2000) found that first-time mothers' perceptions of their infants' temperaments were mediated by their antenatal attachment.

Adult attachment status is associated with observed mothering (Slade, Belsky, Aber & Phelps, 1999). In a sample of married middle and working class mothers, those mothers rated secure on the Adult Attachment Interview showed more joy and pleasure in the relationship than did preoccupied or dismissing mothers. The higher the scores on the joy-pleasure/coherence dimension, the less negative and more positive the observed mothering. Dismissing mothers expressed most anger. They were less sensitive and less positive in their behaviour towards the child. Sensitivity and (appropriate) responsiveness are markers for the relationship a mother will have with her child.

Parental Sensitivity and Responsiveness and Parent-Child Interaction

Attachment theory would predict that parental responsiveness, particularly parents' emotional responsiveness would be accounted for to a large extent by

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attachment representations. Martin (1989) gives emotional availability as one dimension of the responsiveness which links early parenting and behaviour problems. Biringen reports that sensitivity, structuring, intrusiveness and hostility are associated with the mother's emotional availability to the child (Biringen, 2000). Wakschlag and Hans (1999) found that the absence of maternal responsiveness during infancy increased the risk of disruptive behaviour in middle childhood, even when concurrent parenting and established risk factors for disruptive behaviour were controlled. Maternal responsiveness also interacted with concurrent family risk to predict disruptive behaviour.

Crandell, Fitzgerald and Whipple (1997) ran a study to examine the links between maternal attachment and synchrony in mother-child interactions with their preschool children. The children in this study did not have disruptive behaviours. A questionnaire version of the Adult Attachment Interview was used to classify the 36 mothers as secure or insecure. Dyadic synchrony was coded from videotape of each mother playing with her child for 20 minutes. When controlling for maternal age, education and socioeconomic status, not only was attachment classification related to more fluid give-and-take between mother and child, but secure mothers also expressed more warmth and affection. They gave their children more encouragement to be autonomous and were less intrusive.

Rholes, Simpson and Blakely (1995) found that levels of ambivalence in anxious-ambivalent mothers were associated with feelings of closeness to their child. The direction of the effect depended on the quality of the relationship with their partner. Mothers who were highly ambivalent reported more closeness to their children when their marriages were negative than when positive, but less ambivalent mothers reported the opposite. Anxious-ambivalent mothers reported reservations about their parenting ability.

Alongside and related to being influential in parental sensitivity, responsiveness and parent-child interaction, attachment style is likely to influence how mothers discipline their children.

Discipline

Attachment theory can contribute to understanding how parents with different attachment styles are more likely to adopt certain discipline strategies. Smith and O'Leary (1995) suggested that emotions and cognitions are important in maintaining harsh discipline. Such feelings and cognitions may be predicted to some extent from mothers' attachment styles.

Predicting discipline practice for secure and dismissive mothers is more straightforward than for those who are preoccupied or fearful. Secure mothers are positive in their feelings towards others and themselves. They feel comfortable with closeness in their intimate relationships, generally believe that they can rely on those they are close to for support and are not anxious about being abandoned. They will be likely to have functional attitudes and more functional discipline practice. They will not use the threat of withdrawing love to discipline their children (Magai, Hunziker, Mesias & Culver, 2000). Dismissing parents will be more likely to be authoritarian. Authoritarian personality entails a rigid adherence to convention. Arnold, O'Leary, Wolff and Acker (1993) argue that authoritarian parents are likely routinely to use threats and physical punishment with their children. Van IJzendoorn (1997) found that dismissing participants scored highest on the authoritarianism scale. Parents who report high levels of parenting stress are likely to be authoritarian, harsh and negative in their parenting (e.g. Belsky, Woodworth & Crnic, 1996). Hastings and Rubin (1999) found that authoritarian mothers of aggressive 2-year-olds reported high control and anger, blamed their children for their aggression and focused on getting the child to comply rather than teaching appropriate skills. Secure

and dismissing mothers are less likely to be inconsistent than preoccupied and fearful mothers.

Preoccupied mothers have negative views of self but positive, albeit apprehensive, views of others. They are comfortable with closeness but also anxious about being abandoned. In terms of disciplining their children, lack of confidence in themselves could well lead to being inconsistent when dealing with their children's aggressive behaviours. Anxiety about being abandoned could mean that they are scared to risk upsetting the relationship and their discipline practice would therefore be more lax. Those mothers classified as fearful would not be comfortable with closeness in their intimate relationships but at the same time are anxious about being abandoned. A conscious fear of rejection together with a negative view of herself and others might lead to much more severe discipline at some times than at others.

Hastings and Grusec (1998), examining how parenting goals affect parents' response to disagreements, found that parents who assert power most are those who want to be continuously in control of their children's behaviour. Those who use discussion and reasoning are concerned that their children internalise moral values. Those parents who focus on the quality of the relationship with their child are likely to be warm, supportive and willing to compromise. Alloy et el. (1999) found that parents of high risk sons who were themselves at high risk for depression reported using more negative control.

The discipline chosen by parents to socialise their children can be seen to be connected with the adults' attachment status. Both adult and child intelligence are also associated with adult attachment. This association might not appear to have much to contribute to understanding discipline practice, but there are indirect connections through how mothers may respond to training.

Children's Intelligence

Lower child intelligence quotients are associated with children's disruptive behaviours. Lynam, Moffitt and Stouthamer-Loeber (1993) found a direct negative relationship between intelligence and delinquency when controlling for race, class, and observed test motivation. Freitas and Downey (1998) caution that as with all factors known to contribute to children's disruptive behaviours, relationships are not hypothesised to be direct, but need to be considered in relation to other psychologically mediating variables and to features of the environment. In Vygotskian theory, social interaction with adults provides the basis for the child's communicative and cognitive development. Maternal affect, sensitivity and synchrony are associated with children's intelligence quotients and with maternal attachment representations. Rocissano and Yatchmink (1983) argued that the cognitive limitations of toddlers emphasise the mother's role in maintaining synchrony. They suggest that using resources to maintain synchrony means that young children have fewer cognitive resources available.

Positive affect is considered to facilitate cognitive growth (e.g. Estrada, Arsenio, Hess, & Holloway, 1987). Appelbaum et al. (1999) in a longitudinal study, found that children of mothers who reported feeling depressed received lower scores on cognitive-linguistic functioning (and were also less co-operative and more problematic at 36 months). Maternal sensitivity moderated the effect of depression on co-operation and cognitive functioning. Kaplan, Bachorowski and Zarlengo-Strouse (1999) argue that child-directed speech plays a very important role in infant learning. They found that infants responded differently to the quality of vocal stimulation from their mothers, and that those mothers with higher self-reported BDI scores produced child-directed speech which did not promote associative learning. Bornstein, Haynes

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and Painter (1998) also found that maternal attitudes to parenting contributed to children's vocabulary competence.

Maternal sensitivity has been shown to influence 4-year-olds' perceptual performance (Lewis, 1993) and intelligence quotient scores (Bornstein & Tamis-Le Monda, 1989). Results from the latter study indicate that the effects of maternal responsiveness on infant mental development are specific and indirect. In a meta-analysis of the predictive value of the Adult Attachment Interview, van IJzendoorn (1995) concluded that adult attachment was associated with sensitivity, even when assessed concurrently.

Kirsh, Crnic and Greenberg (1995) in a study of the relations between parent-child affect and synchrony and cognitive outcome in 5-year-old children, found that affect and synchrony interacted in predicting intelligence. Crandell and Hobson (1999) compared intelligence quotients in three-year-old children of secure and insecure mothers (N = 36) again using the Adult Attachment Interview as a Questionnaire (Crandell et al., 1997). They found significant differences in the children's intelligence (Stanford-Binet) when controlling for maternal intelligence (WAIS-R), education and socioeconomic status. They also looked at a subset of individuals (n = 16) where the children's intelligence quotient was ten points higher or lower than that of their mothers. Six children had intelligence measures ten points below the intelligence quotient of their mothers. These mothers were rated insecure. The authors conclude that attachment makes important social-developmental contributions to young children's performance on standardised tests of intellectual ability. They also found evidence suggesting that parent-child synchrony, measured using a modified version of the Belsky Parent-Child Interaction System (Whipple, Denburg, & Davies, 1993) was related to children's intelligence quotients. These mothers were middle class and their children did not have disruptive behaviours. These findings may generalise to mothers of children with disruptive behaviours.

This would make sense in that children with lower intelligence may have more restricted ways of achieving contact and feeling safe with parents, which might encourage and perpetuate disruptive behaviours.

Adults' Intelligence

There is also some evidence of association between attachment style and intelligence in adults. Crowell et al. (1996) found modest but significant relationships between adult attachment classification on the Adult Attachment Interview and IQ scores of married women with preschoolers. However, Sagi et al. (1994) found no association between Adult Attachment Interview classifications and intellectual abilities in Israeli students. Exploration is associated with learning, and exploration patterns are associated with infant attachment classifications. Secure infants show confident exploratory behaviour. Johnston (1999), using a mail survey, extended this to look at adults' exploration patterns in novelty seeking, curiosity, and impulsivity. She found that in comparison to secure adults, avoidant adults reported less curiosity. There were no differences between the preoccupied individuals and the secure or avoidant groups. The groups did not differ in terms of novelty seeking or impulsivity.

If, in large samples, secure individuals tend to have higher intelligence, or other attributes which allow their intelligence to develop and operate more fully, this would contribute to the finding of somewhat higher socioeconomic status, in that they should have enhanced ability to obtain employment (together with easier interaction with co-workers).

Therapist-Client Relationship

Outcome in parent training depends on aspects of the acceptability of the service (e.g. Meichenbaum & Turk, 1987; Patterson & Forgatch, 1985; Webster-

Stratton & Herbert, 1994). Kazdin and Wassel (1999) stress that 'the therapeutic alliance and relationships, a component of the treatment experience, are critical processes that influence outcome in the treatment of adults'. These authors, in a study of cognitive-behavioural treatment of children referred for disruptive behaviours, found that the relationship with the therapist, measured as part of the Barriers to Treatment Participation Scale (Kazdin et al., 1997b) was related to therapeutic change for parents in levels of depressed mood, psychiatric dysfunction and stress. Barber, Connolly, Crits-Christoph, Gladis and Siqueland (2000) extended these findings in a study of outcome for a group of 86 patients with generalised anxiety disorders, chronic depression, or avoidant or obsessive-compulsive personality disorder. They demonstrated that alliance significantly predicted subsequent change in depression when prior change in depression was partialed out. They conclude that the role of alliance in therapy is causal.

Avoidant individuals may find it particularly difficult to be positive in their expectations of the relationship with the therapist. They may find positive change difficult to envisage and if changes occur they may not perceive them for what they are (Green-Hennessy & Reis, 1998). Dozier and Tyrell (1998) found that securely attached clients are better collaborators in treatment, whereas avoidant clients maintain more distance.

The clinician's attachment representations will also contribute to the therapeutic relationship. Clinicians who use secure strategies are better able to provide clients with experiences that effectively challenge maladaptive working models. Tyrrell, Dozier, Teague and Fallot (1999) found that in therapy for serious psychiatric disorder, client and case managers' attachment predicted their working alliance and predicted client functioning. The authors consider it important that clients and clinicians are matched 'in ways that balance their interpersonal and emotional strategies' (p. 725). Dozier, Cue and Barnett (1994) found that in working with clients

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with serious pathological disorders, insecure case managers attended more to dependency needs and intervened in greater depth with preoccupied than with dismissive clients. More preoccupied case managers intervened in greater depth than did dismissive case managers. Ojehagen and Berglund (1992) suggest that lack of patient-therapist matching could affect both the acceptance of treatment and attrition. These examples may not appear immediately relevant to behavioural parent training, but Leiper and Casares (2000) suggest that therapists' attachment representations may well affect their preferred approach to and expectations of clients.

What are the implications from these findings, of attachment representations for parent training for disruptive behaviours? Bowlby (1988), in discussing the implications of attachment theory for individual therapy, outlines the therapist's five main tasks. These are to provide a secure base for the client so that she can explore difficult areas with someone she trusts; the therapist needs to encourage the client to think about how she approaches her important relationships; to construct a good relationship between client and therapist; to help the client assess her current thoughts, feelings and behaviour in terms of how these may have been shaped by childhood experiences particularly with parents; when the models are recognised, the client is then helped to judge the appropriateness of applying them to her current situation. In behavioural parent training, the parent who is being helped to change her child's disruptive behaviours needs a degree of security provided by the therapist before therapy can begin. The therapist needs to be appropriately responsive and dependable and will also be aware that different mothers' previous experience may predispose them to have greater or lesser trust in the therapist. Mothers will respond differently within the therapist-client relationship, some coming to believe that the therapist can solve everything for them and over-responding to the attention and care provided by the therapist. Mothers will be helped to examine their relationship with their child and to be aware how her other relationships might impact on her

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relationship with her child. In responding to the client, the therapist will provide more appropriate advice if the mother's misperceptions or misunderstandings are seen as a product of her earlier experience. The therapist will have a greater understanding of the difficulties the mother faces in trying to implement the techniques she has been taught.

Predictions of Outcome from Parent Training for Mothers with Different Attachment Styles

Drawing from the findings discussed earlier relating to socioeconomic status, mental health, parenting and intelligence, predictions about outcome from parent training would be that secure mothers would be able to gain maximum benefit from behavioural parent training. They should readily be able to learn how to implement behavioural strategies and put them into practice with their children. The relationships within which they would be implementing learned techniques would be working better (and the relationship with the child would become more functional during therapy). They would have appropriate trust in the therapist and not be overly dependent. They would have reasonable confidence in their own ability and have reasonable expectations of the child. They would maximise the service offered to them and relate well and appropriately to the therapist.

Insecure mothers of children with disruptive behaviours will have more extensive treatment needs. Insecure dismissing mothers would be less likely to seek referral in the first place, and would be more likely to drop out of treatment. Their sensitivity to criticism would also have negative implications for remaining in treatment and the relationship with the therapist. They would be more likely to keep emotionally distant from the therapist. In insisting on their independence and lack of vulnerability, they may be less open to parenting advice. They would find it difficult to accept that the therapist could do much to help. Having learned techniques,

behaviour might change in the short term, but unless change in the child's behaviour enabled a different relationship with him or her, it would be unlikely to be maintained.

Insecure preoccupied mothers would find it particularly hard to be consistent in their interactions with their children, which is one fundamental precept of behavioural parent training. They would tend to be overly dependent on the therapist and less ready to believe that they could take responsibility in their relationship with their child.

Mothers who are classified unresolved show cognitive disorientation and disorganisation. They are less able to reflect on relationships (Main, 1991). Routh et al. (1995) note that the relationship between the unresolved classification and parenting has not been investigated. The trauma or loss which unresolved parents have experienced in childhood will occupy some of their cognitive processing ability and the intrusion of disturbing states of mind into current states of mind may make it more difficult for unresolved mothers to take on and implement therapy. Consciously or unconsciously it is likely to influence their feelings and attitudes towards their partners and children. Trauma which is unresolved implies an ongoing source of vulnerability. The mother may be more likely to react strongly if her child or partner touches on this vulnerability. So unresolved status may be seen as exacerbating the negative aspects of attachment styles when under stress or hastening their appearance. Given that Routh et al. found resolved or unresolved status to be associated with outcome from parent training (see next section) it is likely to play a very important role.

What Evidence is there for the Influence of Attachment Representations in Parent Training for Disruptive Behaviours?

The only study of the influence of adult attachment on outcome from parent training for disruptive behaviours, found that the relationship between referral and outcome child behaviour scores differed according to resolved or unresolved

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attachment status (Routh et al., 1995). The data were also suggestive of the relationship between referral and outcome scores being different for secure and insecure status. Routh et al. investigated attachment status using the Adult Attachment Interview in mothers of children referred for conduct problems. Thirty-three of an original sample of 46 mothers took part in the study. Half were single parents and the mean age of the children was 6.8 years. Child behaviour was assessed using the Eyberg Child Behavior Inventory (Eyberg, 1980) which was measured before and after treatment (13 to 43 months later). Maternal measures were all taken post treatment. The GHQ was used to gauge maternal psychopathology and marital harmony was measured using the Dyadic Adjustment Scale (Spanier, 1976). Parents attended 10 to 16 weekly sessions which were led by two therapists, and the content of the training was mainly behavioural and based on social learning theory. Routh et al. first looked at the association between outcome Eyberg Child Behavior Inventory scores and factors identified in the literature. The variables in their study were socioeconomic deprivation, marital adjustment, size of family, insularity, social support, level of maternal education, level of maternal psychopathology, and referral intensity score on the Eyberg Child Behavior Inventory. They found that the following measures correlated with outcome Eyberg Child Behavior Inventory scores: referral Eyberg Child Behavior Inventory scores, maternal GHQ, socioeconomic status and size of family. There were no correlations with Eyberg Child Behavior Inventory outcome scores for marital satisfaction, social insularity, social support, or level of maternal education, nor in how regularly participants attended the course. Routh et al. created a psychosocial risk index to reflect the cumulative stress of psychosocial factors, choosing measures according to what each contributed to outcome behaviour scores. This comprised ratings of zero or one from GHQ, socioeconomic status, lack of social support and size of family.

Attachment status did not show any particular relationship to outcome behaviour scores when this was examined using ANOVAs. The researchers then looked at the relationship between baseline and outcome child behaviour scores in two groups of secure and insecure mothers. They found a strong positive association in the insecure group and no association in the secure group. In order to investigate this relationship in a multiple regression analysis they created an interaction variable by multiplying referral child behaviour scores by attachment status (secure = 0 and insecure = 1). The other predictors in the multiple regression were referral child behaviour scores, attachment status (secure or insecure) and the psychosocial risk index. This model accounted for 49% variance in outcome scores. The contribution of attachment status was significant, along with the interaction variable and the risk index, but referral scores were not significant. The procedure was repeated using resolved and unresolved attachment status. When two extreme scores were removed, the contribution of secure versus insecure attachment status was no longer significant but the contribution of resolved versus unresolved status was still significant.

These authors suggest that different mechanisms might be operating in the secure and insecure groups and resolved and unresolved groups. However, although attachment as measured using the Adult Attachment Interview is likely to be stable, it was not measured at referral. Change in maternal psychopathology which could not be measured, was also a matter of concern. The authors hypothesised that reduction in stress resulting from treatment could affect attachment status. They also suggested that their findings might relate more to maintenance than to immediate outcome.

Also in relation to whether attachment representations may be associated with greater or lesser ability to benefit from parent training, although not in the context of disruptive behaviours, a study into sensitivity training indicates that in mothers rated as insecure in their attachment representations, those rated dismissing and those rated

preoccupied benefited differently from interventions to increase sensitivity towards their infants. One group in the intervention study received video feedback and the other video feedback with attachment discussions. There was a control group but not a group who received attachment discussions alone. These investigators found that mothers classified as insecure-dismissing tended to benefit most from video feedback alone, and mothers classified as insecure-preoccupied benefited most from video feedback together with discussions about attachment. The study was designed on the basis that infant-parent security is linked to parental sensitivity and to parental representations of attachment (Bakermans-Kranenburg, Juffer & van IJzendoorn, 1998).

This review has provided examples from the literature which together lend support to adult attachment issues being implicated in the causes and maintenance of children's disruptive behaviours. No study has looked at the relationships between adult attachment and other variables where the children's behaviour was extremely severe. The review has identified a need for a prospective study looking at attachment as a predictor of outcome from parent training.

Chapter Six

CAN ATTACHMENT INFORM OUTCOME FROM PARENT TRAINING FOR DISRUPTIVE BEHAVIOURS?

The literature reviewed in the previous chapter has indicated that adult attachment styles are associated with children's disruptive behaviours and may also inform outcome from parent training for children with disruptive behaviours. This chapter reports on an investigation into the relationships between pre-treatment attachment representations and child behaviour outcome from parent training.

The main hypothesis of the study was that attachment status would predict change in child behaviour scores in a group of mothers of children referred for severe disruptive behaviours, who received behavioural parent training.

In addition it was surmised that mothers whose representations were secure would report greater improvement in their children than mothers rated insecure.

Methodology

Participants

The sample was a subsample of mothers who participated in the Bangor Project for Children with Disruptive Behaviours who completed the attachment measure at baseline (see Table 10). They were those participants who agreed to take part in the research after the Adult Attachment Scale had been introduced by this author. As in the report on the Bangor Project for Children with Disruptive Behaviours, the use of 'child behaviour' in relation to findings, denotes standardised externalising scores from the Child Behavior Checklist.

Table 10. Derivation of Sample Numbers and Pre-treatment Child Behaviour Scores

	N	Sex of child	Mean age of children in group in months	Pre-treatment child behaviour score	95% Confidence Interval for mean
Interviewed sample for the Bangor Project	41	35M 6F	72.0	75.2 n = 39	73.0, 77.5
Mothers with no attachment measures at baseline	12	11M 1F	74.6	72.1 n = 11	68.1, 76.1
Mothers with attachment measures at baseline	29	24M 5F	70.9	76.5 n = 28	73.8, 79.2

The children's ages and externalising behaviour scores were similar in the original group, the subsample selected for this study, and those who did not have attachment measures. This sample did not differ in demographics from the sample interviewed for the Bangor Project. Demographic information on the subsample is to be found in Appendix W.

Measures

Maternal attachment representations were assessed using a self-report instrument, the Adult Attachment Scale (Collins & Read, 1990). This measure appeared suitable for inclusion in the battery of tests already in place and which have been described in Chapter Two. The Adult Attachment Scale is a 5 point Likert-type scale which measures current self-reported capacity to utilise close relationships, using 18 items drawn from attachment theory. The questionnaire has three, factor-analytically derived dimensions, measuring how comfortable the person is with closeness and intimacy in close relationships (Close); her concern or lack of concern about the loss of someone close, or about being abandoned (Anxiety in relationships); and her expectation that those close to her are dependable and trustworthy people

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(Depend). The respondent ticks a space on a grid indicating the degree to which each statement is true of herself: not at all true of me; not really true of me; not sure; true of me; very true of me. Scoring is from 1 to 5 with some items scored in reverse order. It is a dimensional scale, but four categories corresponding to Bartholemew's (1990) classifications can be derived from scores on the three dimensions. A copy of the instrument and details of how the categories are derived from the scores on the dimensions, are to be found in Appendix X.

The Adult Attachment Scale was developed to examine the correlates of adult attachment and used a total sample of 406 undergraduates (similar numbers of men and women).

Reliability and validity: Collins and Read give test-retest reliability over two months (N = 101) as Close .68, Depend .71 and Anxiety .52. Internal reliability (Cronbach's alpha) is given as Close .69 - .73, Depend .75 - .84 and Anxiety .7 - .72 (Wilson & Costanzo, 1996). The dimensions of Close and Depend correlated at r = .38; Anxiety in relationships and Close correlated at r = -.08 and Anxiety in relationships and Depend at r = -.24. Collins and Read found that the three dimensions of Close, Depend and Anxiety in relationships, related to undergraduates' working models of themselves in terms of feelings of self worth, agency and expressiveness and responsivity to others. The dimensions related to social confidence, conformity to social pressures, and belief in the altruism of other people. Feelings of security in adulthood were also related to perceived parental caregiving style which in turn was related to working models of self and others. Collins and Read found that the attachment style dimensions also revealed partner matching and correspondence between the relationship with opposite sex parents and choice of partner.

Twenty-nine mothers completed the Adult Attachment Scale at baseline (see Table 11). The following baseline description (in Table 11) uses attachment dimension data on the 27 mothers of children referred with disruptive behaviours who were classified into attachment categories.

Table 11. Attachment Scale Dimensions at Baseline (N = 27)

Attachment dimension	Mean	SD	Range	Min	Max	95% Confidence Interval for mean	
Close	21.4	4.8	20.0	10.0	30.0	19.5,	23.3
Depend	16.3	4.6	18.0	9.0	27.0	14.5,	18.2
Anxiety in relationships	17.2	7.1	24.0	6.0	30.0	14.4,	20.0

On the dimension of Close, the mean and standard deviation of the sample in this study were very similar to those established by Collins and Read (1990) and found by Appleton (1994; although Appleton's SD was lower at 3.8). The mean of this sample on Depend was lower than that of the other two, and the mean of Anxiety in relationships higher.

The sample did not differ from the one from which it was derived on measures of mental health, parenting stress or raw scores on the Community Contacts Questionnaire. The proportion of insular mothers was lower in the subsample (11% as opposed to 26%). The children of the subsample of mothers did not differ from the main sample on child behaviour or intelligence scores. (This information is to be found in Appendix W).

An overall picture of the sample is that the mothers in this study reported attachment dimension scores which were similar to other populations on the dimension of Close, but somewhat lower on Depend and higher on Anxiety in

relationships. Their mental health and parenting stress scores were high. Their children had very high externalising behaviour scores and low scores on a measure of intelligence.

Grouping of Participants According to Secure or Insecure Attachment Status

The Collins and Read (1990) Adult Attachment Scale dimensions (Close, Depend, Anxiety in relationships) generate four styles: secure, dismissive, preoccupied and fearful. When grouped by attachment status at baseline, 12 mothers were rated secure, 2 preoccupied, 2 dismissive and 11 fearful. Two sets of scores were lost because they fell on the midpoint (where the mean of Close + Depend = 3). This was in keeping with Collins (Appendix X) who found that this procedure lost about 7% of the sample. Given the numbers in each group, groupings of secure (N = 12) and insecure (dismissive, preoccupied and fearful, N = 15) were adopted to describe the sample in terms of attachment and for those investigations where numbers would otherwise be uninformative. A K means cluster analysis was performed, entering results on the three dimensions as a check on the secure or insecure attachment style calculated for each individual from her scores on the dimensional scale. Individual cluster membership was compared with secure or insecure membership derived following Collin's calculations. The analysis confirmed the groupings, although one mother classified dismissive according to Collins' method, clustered with the mothers rated secure. Of the two who were not attributed an attachment style because their score fell on the mean, one was included with the secure group and the other with the insecure group by the cluster analysis.

There were no significant differences between the secure and insecure groups in demographics, as might have been expected in a larger sample. No differences were found in the numbers of male and female children, the total number of children in the house, ages of the children or mothers, co-habiting status, whether the family

was on benefit or waged, time spent in full-time education, nor on the socioeconomic deprivation index. Eight of the 12 in the secure group and 9 of the 15 in the insecure group reported living with a partner. The groups did not differ on the basis of reported community contacts nor on the isolation rating derived from the Community Contacts Questionnaire. Ten of the 12 in the secure group rated as non-insular and 14 of the 15 in the insecure group were non-insular.

Did Attachment Status Predict Change in Child Behaviour after Parent Training?

The following section describes the construction of the model for the regression analysis to test the hypothesis that attachment status would predict change in child behaviour after parent training.

Associations between Follow-up Child Behaviour Scores and Baseline Variables

The only correlations between any baseline variables and follow-up child behaviour scores found to be statistically significant were the children's ages and the duration of the problem ($r = .4$ and $r = .5$, respectively; $N = 23$). The other variables considered were the child's pre-treatment behaviour score; the size of the family; socioeconomic deprivation; community contacts; discipline style; parenting stress; BDI and GHQ; and Parent-Child Autobiographical Memory Test scores. Nor were any relationships found between follow-up child behaviour scores and maternal education; single or two-adult family; whether the family was on benefit or received a wage; treatment dose or child intelligence. A table of the correlations (for all those who had attachment dimension measures at baseline) is to be found in Appendix Z.

Associations between the Baseline Variables

Table 12, overleaf, shows the significant correlations found between the variables at baseline for those participants who were attributed an attachment style.

Table 12. Statistically Significant Baseline Correlations

	Variables	r	N
Child's age	duration of the problem	.7	27
	dysfunctional discipline	.5	27
	GHQ	.4	26
	intelligence	-.4	23
	Parent-Child Autobiographical Memory	-.6	27
Socioeconomic deprivation	parenting stress	.4	27
	dysfunctional discipline	.5	27
	intelligence	-.4	23
Close	community contacts	.4	27
	BDI	-.7	27
	GHQ	-.6	26
	parenting stress	-.5	27
Depend	BDI	-.4	27
Anxiety	BDI	.5	27
	GHQ	.4	26

BDI, GHQ and Parenting Stress scores were inter-related (from $r = .5$ to $r = .8$; for these correlations, GHQ N = 26, BDI and PSI Ns = 27). There were significant differences between the groups on the total problem score from the ECBI ($F(1,25) = 9.1$, $p<.01$); and at baseline on the BDI ($F(1,25) = 7.7$, $p = .01$), GHQ ($F(1,25) = 9.1$, $p<.01$), and the Parenting Stress Index totals (($F(1,25) = 7.4$, $p<.05$).

The variables chosen for the regression analysis are detailed below. The aim of the study was to look at the predictive value of attachment and the model aimed to control for the other predictor variables established as important in the literature. On the whole, Routh et al.'s (1995) procedure was followed, but this study additionally controlled for the duration of the problem, which was significantly related to outcome

child behaviour and was the factor most associated with reliable and clinically important change in the Bangor Project for Children with Disruptive Behaviours.

Standardised externalising Child Behavior Checklist scores at follow-up were the dependent variable in the regression analysis. Independent variables were

i   pre-treatment standardised externalising Child Behavior Checklist scores, included to model change in child behaviour;

ii   attachment status, secure (coded 0) or insecure (coded 1); and

iii   an interaction variable created to include the effect of any interaction between pre-treatment scores and attachment status. The use of the interaction variable allows the investigator to posit that response to change in a continuous variable differs between groups. Attachment status, secure (coded 0) and insecure (coded 1) was multiplied by the baseline externalising child behaviour scores to create this variable.

iv   Routh et al. argued for using a psychosocial index because 'the effect of psychosocial stressors is often cumulative' (p. 1186). Following this reasoning, a four-item psychosocial risk index was created from 1 or 0 scores on maternal education and housing circumstances (which contributed most to the best model). GHQ was chosen over BDI as the measure of mental health, because it gives a more general picture than symptoms of depression alone. Scores at or above 5 on the GHQ were coded 1, those 4 or below were coded 0. Scores of 1 or 0 from the insularity index were also included, because although most participants were not considered to be insular, insularity has been established as an important psychosocial stressor in the literature. Routh et al. had included social support in their study and it was considered that it should be represented in the model.

v   The duration of the problem is considered to be an indication of the tractability of the behaviour. This variable was significantly related to follow-up child

behaviour scores (and to the child's age at baseline), and had been shown to be related to clinically important change in the Bangor Project sample.

Table 13, overleaf, shows the psychosocial risk index scores at baseline and child behaviour scores at baseline and follow-up, by group (secure and insecure) and subgroup (secure, preoccupied, dismissive and fearful), for those participants included in the regression analysis. The six participants not included in the regression analysis had scores missing on one or a component of one of the predictor variables. Table 13 shows that the risk index mean was somewhat lower in the secure than in the insecure group (means 1.7 and 2.1 respectively). Apart from this, scores on all measures were close.

The literature reviewed earlier in the thesis indicated different options based on order of causal priority, for the order of entering the variables into the equation. The decision was made that because of theoretical mutual causality, all the variables apart from the interaction variable would be entered in the first block, and the variable created from the interaction between attachment status and child behaviour entered afterwards (this followed Cohen's recommendation that the interaction variable should be entered after the two variables which comprise it; Cohen, 1983). The analysis is shown in Table 14.

Table 13. Risk Index, Child Behaviour Scores, and Duration of the Problem by Group

Attachment style	N	Risk index mean (95% CI)	Baseline externalising child behaviour (95% CI)	Outcome child behaviour (95% CI)	Change in child behaviour (95% CI)	Duration of the problem in months (95% CI)
Secure	10	1.7 (1.0, 2.4)	77.0 (71.7, 82.1)	65.6 (56.4, 74.8)	-11.3 (-18.9, -3.7)	33.7 (13.2, 54.2)
Insecure (3 groups combined)	11	2.1 (1.5, 2.7)	77.8 (72.9, 82.7)	65.1 (59.0, 71.2)	-11.1 (-21.0, -1.2)	32.4 (21.6, 43.1)
Insecure (separate results for each group)						
preoccupied	2	2.0 (-10.7, 14.7)	76 (-.2, 152.2)	65 (-74.8, 204.8)	-11 (-74.5, 52.5)	both reported 40
dismissive	1	1.0	80	70	-10	12
fearful	8	2.3 (1.5 - 3.0)	78.0 (71.3, 84.7)	64.5 (57.0, 72.0)	-11.3 (-25.8, 3.3)	33.0 (18.8, 47.2)
		F(3,17) = .8	F(3,17) = .1	F(3,17) = .1	F(3,17) < .01	F(3,17) = .3

Table 14. Multiple Regression Analysis Showing the Prediction of Post-Intervention Child Behaviour by Pre-Treatment Variables.

N = 21	R^2	Beta	t	p
Risk index	.08	-0.60	-3.24	0.01
Duration of problem	.30	0.47	2.67	0.02
Pre-treatment externalising behaviour score	.04	0.59	2.41	0.03
Secure/insecure attachment status	.01	5.18	2.60	0.02
Interaction variable	.17	-5.14	-2.56	0.02
	$R^2 = .60$	$F = 4.51$	$p = 0.01$	

From this model it would appear that all the variables made an important contribution to outcome, and the equation accounted for 60% of the variance in outcome scores. (A model without the interaction variable gave $R^2 = .43$, $F(4,16) = 3.0$, $p > .05$. The model including the interaction variable was a significantly better model (see Appendix AA)).

The main problem with having low numbers in this regression analysis is lack of confidence in generalising the results. There were three outlying baseline scores in the sample. Without these, the analysis gave $R^2 = .62$, $F(5,12) = 3.9$, $p = .02$. This indicated stability in the model. In order to test the sensitivity of the model to the effects of single cases, each case was omitted in turn. This procedure produced a range of R^2 from .55 to .65, $F(4,15)$ from 3.4 to 5.1 and p values from .01 to .03. The highly significant results from the analysis, which were in keeping with theory, made the findings undoubtedly worthy of note despite low numbers. That they remained stable when outliers were removed and did not change dramatically when single cases were systematically removed, indicates a likelihood that the use of greater numbers might well produce similar results.

What did attachment status contribute to the model? When attachment was not included, the model including baseline child behaviour, the risk index and the duration

of the problem, provided a reasonable fit ($R^2 = .42$, $F(3,17) = 4.1$, $p < .05$). However, only when the attachment and interaction variables were included was the contribution of pre-treatment child behaviour significant, and with these variables there was an increase in R^2 of .17.

The model was tested without three cases where there were outlying scores on the duration variable, and remained essentially the same ($F(4,14) = 5.4$; $p < .01$).

Did the Mothers Report Different Amounts of Change in their Children's Behaviour According to Attachment Status?

The research reviewed in the previous chapter strongly implied that improvement in externalising behaviours should be greater for children of secure mothers than for children of insecure mothers. The baseline and follow-up means presented in Table 15 show that this was not the case.

Table 15. Child Behaviour Scores for the Secure and Insecure Group Pre- and Post-Intervention.

Group (n = 11)	Child behaviour externalising score					
	Baseline			Follow-up		
	mean	SD	range	mean	SD	range
Secure	76.9	6.9	63 - 88	66.4	12.4	41 - 82
Insecure	76.2	10.5	52 - 91	65.1	9.1	53 - 77

There was no difference in change in the children's externalising behaviour between the groups ($F(1,20) = .01$, $p = .9$). Paired sample t tests gave significant results for each group. (By group, results were for the secure group, $t = 3.4$, $p < .01$, and for the insecure group, $t = 2.5$, $p < .05$.)

Calculation of clinical and reliable change followed the methods described in Chapter Three. Clinical change in child behaviour was calculated according to Christensen and Mendoza's method (p. 80) and reliable change was calculated

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according to whether scores had moved to within 2 standard deviations of the normative mean (Evans et al., 1998).

<u>Table 16.</u> Cross Tabulation of Reliable Change Against Clinically Significant Change.

		Reliable change					
		Secure			Insecure		
		Yes	No	Total	Yes	No	Total
Clinically significant change	Failed to achieve clinically significant change despite sufficient initial score	1	5	6	1	3	4
	Started better than criterion for clinically significant change	1	1	2	0	0	0
	Clinically significant change	3	0	3	4	3	7
	Total	5	6	11	5	6	11

In the secure group, of 9 who were eligible, 3 reported reliable and clinically significant change (33%). In the insecure group 4 of 11 eligible mothers reported reliable and clinically significant change in their children's behaviour (3 rated fearful and 1 preoccupied; 36%).

Despite this lack of difference in quantity of change, the regression equation indicated that attachment status did contribute to outcome. When the plots for each group were examined (Figures 12 and 13, overleaf) it appeared that different mechanisms might be operating within the two groups. The relationships between pre- and post-treatment externalising behaviour scores appeared to be different. In the secure group there was a moderate, positive association between the two sets of scores, but there was a low, negative association in the insecure group ($r = .6$, $p = .1$, and $r = -.2$, $p = .5$ respectively; $n = 11$). The interpretation of this is that
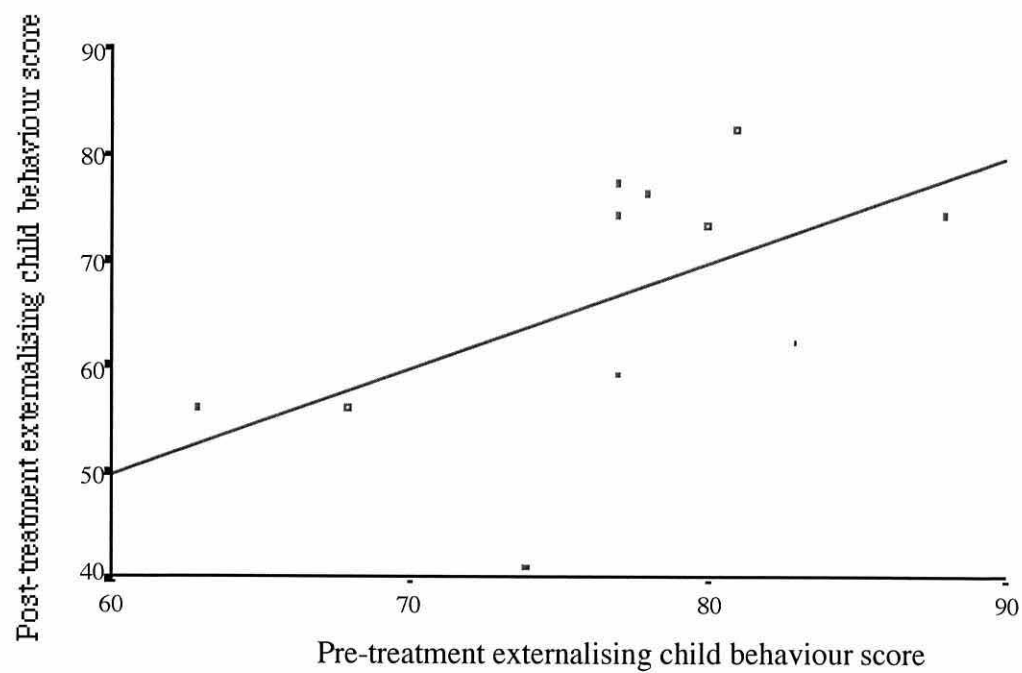
Figure 12. Scattergram of pre and post externalising scores in the secure group.
$R^2 = .30$.
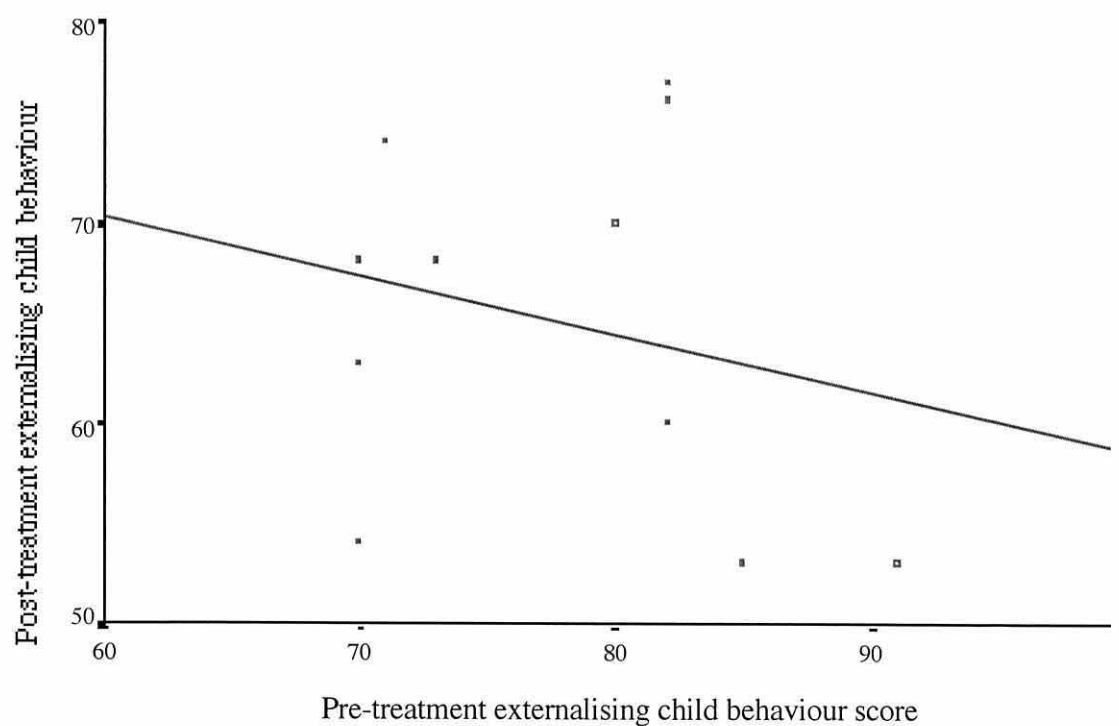
Figure 13. Scattergram of pre and post externalising scores in the insecure group.
$R^2 = .05$

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change in the behaviour of children of secure mothers was somewhat more predictable than change in the behaviour of insecure mothers. For the secure mothers, the higher their children's baseline scores, the higher the outcome scores. Scores in the insecure group were not really predictable, but indications were that the higher the baseline scores of these children, the lower their reported outcome scores. When compared using the z-test for two correlation coefficients (Kanji, 1993, p. 35) the difference in the correlations was not statistically significant ($z = 1.7$).

The contribution of each of the chosen variables to outcome child behaviour scores, conformed to findings from the literature presented in Chapter Five. It is informative that in this sample and using the measures chosen, no psychosocial variable nor baseline child behaviour related to outcome scores. This could be because the sample was not large enough for these relationships to emerge, but could also imply that when children's behaviour is rated as extremely severe, the dynamics between how the variables interrelate when change is effected are particularly complex.

Was there any Difference in Outcome for Secure or Insecure Participants According to Whether they Received Intensive or Standard Treatment?

The evaluation of intensive as opposed to standard treatment in the Bangor Project for Children with Disruptive Behaviours found no reliable difference in externalising child behaviour change over time from the two treatment conditions. Can attachment status inform response to standard or intensive treatment? Numbers of secure and insecure participants who completed treatment were identical in the intensive and standard treatment groups. In each treatment group there were 7 secure and 4 insecure participants.

Firstly, secure mothers who received intensive treatment reported statistically significant improvement in their children's behaviour between pre- and post-treatment

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whereas secure mothers in the standard group did not (t = 3.0, p < .05, n = 7; and

t = 1.5, ns, n = 4 respectively). This was reflected in the numbers reporting clinically

significant change. Nine secure mothers were eligible to make reliable and clinical

change, and of four in the standard group, one mother reported reliable and clinically

significant change, and two of five in the intensive group reported reliable and clinically

significant change. All the insecure mothers were eligible to report reliable and clinically

significant change; that is no participant in this group had a child whose score was within

2 SDs of the normative mean. Of the 11, two of the four in the standard group and two

of the seven in the intensive group reported reliable and clinically significant change.

These results are shown in Table 17.

Table 17. Clinically Significant Change in Child Behaviour According to Attachment
Style and Treatment Condition.

Treatment group		Attachment style			
		secure		insecure	
	n	reliable and clinical change	n	reliable and clinical change	
standard	4	1	4	2	
intensive	5	2	7	2	

Unfortunately, numbers are too small to draw any particular conclusions about

treatment status from these results. Forty per cent of secure participants in intensive

treatment reported reliable and clinically important change. In standard treatment 25%

reported such improvement. Insecure participants may have fared better in standard

treatment, with 50% making reliable clinical change. In intensive treatment 29% reported

such change. Obviously these cannot be regarded as generalisable results.

The major strength of intensive treatment in the Bangor Project for Children with Disruptive Behaviours, was keeping the families engaged with the therapy programme. Of the participants who also had measures of adult attachment, only 1 participant of the 15 in the intensive treatment group did not complete treatment, whereas 3 of 12 in the standard group left treatment. Attrition in the intensive and standard groups according to secure or insecure attachment style is presented in Table 18.

Table 18. Attrition According to Attachment Style and Treatment Status.

Treatment group		Attachment style		
		secure		insecure
	n	left treatment	n	left treatment
standard	5	1	7	2
intensive	7	0	8	1

Of the secure participants, only one did not stay in treatment (8%). This was a foster child whose mother was in the standard group, and Social Services objected to child's involvement in the research evaluation. Of the insecure participants, three classified fearful at baseline, left treatment, two from the standard and one from the intensive group (20%). This difference in attrition between secure and insecure groups was not significant.

It would have been expected that more insecure than secure participants would leave treatment but the numbers involved here are not sufficient to inform this question.

Discussion

Summary of Findings

The first hypothesis was that attachment status of mothers would predict change in the behaviour scores of their children after parent training. Sixty per cent of the variability in outcome child behaviour scores was accounted for by variability in the

predictor variables which were: pre-treatment externalising child behaviour scores, self-report attachment status, the interaction variable (secure or insecure attachment status x pre-treatment child behaviour scores), a psychosocial risk index and the duration of the problem. All made significant contributions to outcome scores. In the secure group there was a moderate association between baseline and outcome scores whereas in the insecure group the relationship was low and negative.

The second hypothesis was that mothers rated secure would report greater improvement in their children's behaviour after parent training. Univariate analyses showed no difference in change in externalising child behaviour scores between secure and insecure participants, nor was any difference found in numbers who had made reliable and clinical change.

In terms of how attachment and treatment status (intensive or standard) informed outcome, findings were unclear, but secure participants seemed to respond well in intensive treatment, whereas insecure participants seemed to respond as well, if not better, in standard treatment. More secure participants stayed in treatment than did insecure participants.

Preliminary Discussion of Findings

This thesis, using a self-report measure of attachment, found that a measure of attachment contributed to outcome child behaviour scores after parent training. This finding was in keeping with the literature reviewed in Chapter Five, which implicated adult attachment in those factors used in the regression analysis, that is the severity of child behaviour, maternal mental health and socioeconomic deprivation.

Attachment variables were not discussed in terms of how they might relate to the duration of the problem, which contributed to child behaviour outcome scores. The greater resilience associated with secure attachment status could imply that secure mothers would tolerate their children's undesirable behaviour for a longer period. Or it

could be that that they might recognise the need to get help for the problems at an earlier stage. The duration of the problem was an estimate by mothers, and hence subject to the biases which are likely to have influenced the other report measures. Hence insecure mothers might overestimate how long the child had had problems, or request help earlier because of the stresses of coping with the children's behaviour. It appears that in this extreme sample, the latter was the case. Secure mothers reported longer duration of the problem (mean 41 months, SD = 31; insecure mothers reported 32 months duration, SD = 24).

It was obviously of interest to compare the findings from the only two (known) studies to examine the question of whether adult attachment might predict outcome from parent training for children with disruptive behaviours, because this could inform both theory and clinical practice. There were sufficient similarities in the samples, treatment and variables measured, to examine how Routh et al.'s (1995) findings could inform results from the study reported in this thesis. Both samples were selected from consecutive qualifying clinical referrals. The children were of a similar age range. The training received by mothers was predominantly behaviourally-based and delivered by qualified NHS personnel. Significant overlap was not expected because of differences in the studies. In the study reported in this thesis, the children's behaviour was more extreme in the sample studied; numbers involved were lower; the post-treatment interval was shorter; more therapists were involved and the amount of their experience probably varied more; and families were seen individually by one therapist as opposed to in groups with two therapists.

In the sample in this thesis, there was a moderate association between baseline and outcome child behaviour scores in the secure group, but no prediction of follow-up scores was possible in the insecure group. In the Routh et al. study the reverse was the case. Routh et al., using post-intervention Adult Attachment Interview protocols, found that in their regression analysis, unresolved attachment status predicted follow-up child

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behaviour whereas resolved attachment status did not. They found that insecure

attachment status predicted follow-up child behaviour whereas secure attachment status

did not.

These results immediately raised questions about the differences in the attachment

measures used. However, before these questions were addressed, Routh et al.'s

procedure, using follow-up measures of attachment and the other maternal variables, was

followed. This resulted in baseline and follow-up relationships in the measure of child

behaviour which were less different to Routh's results, but maintained the same pattern.

The process was then repeated using unstandardised externalising Child Behavior

Checklist scores in order to make the comparison closer to the Eyberg Child Behavior

Inventory used by Routh et al. Table 19 shows that the differences were considerably

less pronounced, particularly for the groups rated insecure in both studies.

Table 19. Baseline and Follow-up Correlations in Child Behaviour

Study	Secure r	Insecure r
This thesis using CBCL externalising raw scores	.3 (n = 18, ns)	.5 (n = 11, ns)
Routh et al	-0.1 (n = 12, ns)	.6 (n = 25, p <.001)

Given that attachment was fairly stable in the study reported in this thesis (see

Appendix BB) these findings would indicate that differences in how child behaviour was

measured, and when the maternal measures were taken, may have contributed to the

disparity in the results.

The child's age was significantly associated with outcome behaviour scores (even

though standardised T scores of externalising behaviour controlled for the range of ages

in the study) and given its association with the duration of the problem ($r = .6$, $p < .001$),

could have greater significance in extreme samples than in less severe clinical cases.

The relationship between attachment style and mood also needs to be considered in the context of this study. Low mood may have resulted in participants rating their attachment style as insecure rather than insecurity being a fairly stable factor for vulnerability. This issue has been addressed using Bartholemew and Horowitz' Relationship Questionnaire (Bartholemew & Horowitz, 1991) by Haaga et al. (2002). These researchers conducted three studies to evaluate whether the association between depressive symptoms and self-rated insecure adult attachment styles could be 'an artifact of mood-dependent negative self-ratings'. In a cross-sectional study, they found the positive correlations they had expected between preoccupied and fearful attachment styles and depressed mood in a non-clinical sample (N = 95). A subsequent study established that 25 adults who were fully recovered from clinically diagnosed major depression scored higher than 25 participants who had never suffered from clinical depression, on the preoccupied and fearful scales. The participants who had never been depressed scored higher on secure attachment. There were still significant differences between the secure and the preoccupied and fearful groups when controlling for current BDI. These findings give support to the argument that insecure attachment (although not dismissing attachment) is a 'stable vulnerability factor for depression and not an artifact of current mood (Haaga et al., 2002, p. 64). In their third study, Haaga et al. manipulated mood using music. They found no evidence suggesting that the depressed condition was associated with higher scores on the insecure styles.

In the current study, mood measured by BDI scores was significantly associated with scores on the attachment dimensions of Close and Depend (rs = -.8 and -.5 respectively, although not with Anxiety scores, r = .4, p >.05). It is not known how many mothers could have been described as clinically depressed, but these associations imply an association between mood and reporting of secure or insecure attachment status. In the secure group, BDI was associated only with scores on Anxiety in relationships (r = .7, p<.05) and not with the dimensions of Close and Depend (rs = +/- .1). In the insecure

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group, BDI and Close scores were strongly associated ($r = .9$, $p < .01$) but BDI was not associated with Depend nor Anxiety (rs = -.3 and -.1 respectively). However, although secure and insecure groups could be distinguished by scores on Anxiety and Depend at baseline, the difference on Close was not significant ($Fs(1,19)$ for Close, Depend and Anxiety were 4.3, 25.2 and 43.3 respectively). These relationships imply that mood may be influential, but not consistently so.

Looking at change in attachment status and in BDI scores also provides information on this question. BDI scores differentiated the secure and insecure groups at baseline. By follow-up, the mean score for the insecure group had fallen from 19.4 to 13.3 (SDs 14.6 and 13.7 respectively). Although reported attachment styles remained relatively stable (see Appendix BB), five participants reported change between secure and insecure styles by nine month follow-up. The BDI score of the one secure participant who changed to insecure, increased only from 13 to 14. Within the secure group, 40% were over the arbitrary cut-off of 10 (range 1 - 19). The two preoccupied participants scored 0 and 7 on the BDI at baseline. The one who reported secure attachment at follow-up had scored 7 at baseline and 4 at follow-up. The BDI score of the one dismissing mother who changed to secure dropped from 12 to 5. Two participants who reported themselves fearful at baseline had changed to secure by follow-up. The BDI score of one had increased from 7 to 9 and the score of the other dropped dramatically from 35 to 7. To summarise, change in BDI scores was associated with change in attachment style only in some mothers. This does not allow clear conclusions but would indicate that although depressed mood may have some influence, change in attachment style is not obviously mood related. This is in keeping with Haaga et al.'s conclusion that insecure attachment styles convey vulnerability to depression rather than being an artefact of current sad mood.

<u>Comparing Self-Reported Adult Attachment and the Adult Attachment Interview</u>

Apart from the fact that Routh et al. did not take a pre-treatment measure of attachment, nor of maternal psychosocial variables, the major difference in investigation between the studies was that this thesis used a self-report measure of adult attachment, the Adult Attachment Scale, whereas Routh et al. used the Adult Attachment Interview. A brief review of how the relationship between the Adult Attachment Interview and self-report instruments has been regarded is pertinent here.

There have been considerable shifts in how the relationship between self-report measures and the Adult Attachment Interview has been viewed. It used to be generally held that results from the Adult Attachment Interview do not correspond to results from self-report measures. There was a consensus that they are two different kinds of measures. The Adult Attachment Interview reveals global states of mind in respect to attachment to significant others, focusing on parenting. Self-report measures are held to reveal more specific conscious attitudes and beliefs by focusing on romantic relationships. They measure the explicit content of perceptions and views which probably reflect the nature and operation of internal working models that are more accessible.

However, Fraley and Waller (1998) argued that self-report measures do not require people to understand or probe into their own dynamics and defences any more than does the Adult Attachment Interview. They claim that respondents require a degree of familiarity with their own feelings, social behaviour and beliefs about relationships, and with the feedback which has been received from partners in previous and current relationships. Chapter Four has given evidence that self-report measures of adult attachment relate significantly to patterns of self-disclosure and to seeking and providing support under stressful conditions. They relate to the ways in which a person uses close relationships, to observations of marital communication and to relationship break-ups

(Shaver & Brennan, 1992; Feeney & Noller, 1990; Kobak & Hazan, 1991; Mikulincer & Nachshon, 1991; Simpson, Rholes & Nelligan, 1992).

Bartholemew and Shaver (1998) concluded that although measures of adult attachment differ in terms of domain, method, dimensionality and categorisation systems, the measures do converge to varying degrees, especially when reliability and statistical power are sufficiently high. Bartholemew and Shaver report that insufficiently powerful tests have been used when the Adult Attachment Interview and self-report measures have been shown to be unrelated. They inform readers that to run a study which has 80% probability of detecting a medium effect between an insecure group (e.g. dismissing-avoidant) and any other group of equal size, will require a minimum of 64 dismissing individuals (Cohen, 1988, p. 37). They also report that most comparisons between the Adult Attachment Interview and self-report categories imply that the attachment classification measures are parallel. However, the Adult Attachment Interview dismissing and Hazan-Shaver fearful avoidant categories are not the same. The Adult Attachment Interview unresolved category has no counterpart in self-report measures. So some convergence might be expected albeit not strong. Shaver, Belsky and Brennan (2000) found overlap mainly in the areas of being comfortable depending on attachment figures and being comfortable in being an attachment figure. They examined the relations between the Adult Attachment Interview, Bartholomew and Horowitz's self-report attachment measure, and the multi-item romantic attachment scales designed by Collins and Read (1990) in a data set collected by Belsky and colleagues. The quantitative coding scales from the Adult Attachment Interview were all significantly related to the self-report romantic attachment measures of 135 mothers of one-year-old infants, even though the two typologies were not significantly related. The authors concluded, as did Bartholomew and Shaver (1998) and Fraley and Waller (1998), that attachment measures are more precise when analysed in terms of dimensions rather than types, and that different measures of attachment are related at the level of underlying dimensions, despite

differences in focus (child-parent vs. romantic/marital attachments), content (discourse and defensiveness vs. experiences in romantic relationships), and method variance (interview coding, social desirability biases, etc.).

The dismissing representations assessed via the Adult Attachment Interview are least likely to find a counterpart in self-report measures and this is a problem for comparing studies or summarising results from studies using one or other measure. As described earlier, Bartholemew and Horowitz (1991) distinguished fearful- and dismissing-avoidant categories. The dismissing-avoidant group involves defensive exclusion from consciousness of negative feelings and attachment needs (Bartholemew, 1990). Defence mechanisms may confound reporting on self-report measures, in that responses of individuals rated dismissing on the Adult Attachment Interview would in many cases classify individuals as secure on a self-report measure. On the other hand, mothers in the sample in this thesis were under considerable stress and it could be that dismissing representations might become more manifest under these conditions. There is some evidence that differences in the attachment measures used may have influenced differences in outcome between the study reported in this thesis and that of Routh et al.. The proportions of secure and insecure mothers represented in the samples appear different. In both studies the sample was a group of mothers of children referred with disruptive behaviours. A greater proportion of these mothers would be expected to be insecure rather than secure, and this should have been more apparent where the children's behaviour was in the top part of the clinical range, as in the sample studied in this thesis. However, secure and insecure participants were fairly evenly represented. In the Routh study, approximately a third (N = 12) were secure and the majority insecure.

Leak and Parsons (2001) point out that self-report assessment of defensiveness has relied on a social desirability scale which confounds deliberate response distortion with unconscious defensiveness. These authors looked at the Adult Attachment Scale (along with the Attachment Style Questionnaire, Feeney et al., 1994; and the Relationship

Questionnaire, Bartholemew & Horowitz, 1991; Griffin & Bartholemew, 1994) to assess how impression management and self-deception affected responses. Impression management is the 'tendency to give consciously inflated self-descriptions'. With a sample of 141 undergraduate students, they used the Balanced Inventory of Desirable Responding (BIDR, Version 6; Paulhus, 1991) to measure unconscious self-deception and impression management. The Self-Deception scale of the Balanced Inventory of Desirable Responding correlated with Depend and Anxiety in relationships on the Adult Attachment Scale (rs = .2 and -.2, respectively). However, the authors concluded that because correlations were modest, it was unlikely that there were meaningful response distortions. The correlations between the Impression Management scale of the Balanced Inventory of Desirable Responding and the Adult Attachment Scale dimensions were significant and 'positive when the attachment style was socially desirable and negative when the style was undesirable' (p. 26). These correlations were slightly higher than those obtained with the Self-Deception scale, but still fairly modest. This moralistic bias might be more pronounced in the sample in this thesis, where mothers might wish to compensate for their children's undesirable behaviour. If this is the case, such a bias could not only influence the other self-report measures in the study but could be a potential additional issue in self-report of outcome. For example, by the time follow-up measures were taken, participants would have been aware of the optimal discipline practices they should endorse, whereas at baseline they might not have had this knowledge. However, the same situation is true for the studies from which this thesis has drawn, and is an important issue relating to measurement in self-report studies and how findings are interpreted, rather than undermining findings from this study.

How these findings complement those from the original analysis and their potential for informing treatment in parent training programmes, is taken up in the following chapter.

Chapter Seven

DISCUSSION

This thesis started by outlining the current understanding of disruptive behaviours in terms of what they are, how they arise and are maintained, and what approaches are used in prevention and intervention. The factors identified were many and tended to be interrelated. They included a socioeconomic context of unemployment and poverty, and distal parental factors such as psychiatric disorder, unsupportive relationships, social isolation and experience of inadequate upbringing. Both socioeconomic and distal parental factors were shown to impact on coercive parental behaviour, which is characterised by low levels of warmth, high levels of criticism and inconsistent discipline. The child's constitution, particularly his or her intelligence and levels of hyperactivity contribute to antisocial child behaviour. The child's disruptive behaviour and the parents' coercive discipline interact to accentuate and escalate both the behaviour and the discipline which maintains it. The review concentrated on those factors which contribute to and maintain disruptive behaviours, and did not focus on the child's emotions and beliefs. These were acknowledged as important and influential, and the more so as children grew older, but parental factors were seen as having greater impact. All the factors reviewed were seen to be interrelated, and this was seen to account for the longer term intractability of the problems in around half the families who receive parent training. The approach adopted by the Bangor Project for Children with Disruptive Behaviours was an attempt to find a solution for those children with extreme behaviours who do not usually manage to improve with treatment. It was based on the theory that social learning principles have been shown to be effective, but that the quantity of such teaching parents received in the course of standard NHS treatment might not be sufficient for those with the worst problems. The assumption here was that it was the children with the worst problems who did not benefit.

The Bangor Project for Children with Disruptive Behaviours was then described. It used measures of child behaviour and intelligence and maternal mental health and stress levels, and discipline practice. The children's teachers were approached for information as to the severity of the child's behaviour in a different setting. At follow-up, mother-child interaction was filmed and coded to give quantities of relevant behaviours for mother and child. Mothers of referred children received either intensive or standard treatment. Intensive treatment involved an initial session of three consecutive days of assessment and instruction in an environment adapted for this purpose. A rich data set was generated which gave a detailed description of participants and change over nine months. When the data were examined, there were no differences between standard and intensive treatment in change in the children's behaviour over the period of the study, and participants in both groups had improved. However, the data did suggest that improvements in maternal mental health and stress levels (especially on the measure of general mental health, the GHQ) were greater in the group receiving intensive treatment. The same was true for maternal discipline practice. This would bode well for longer term follow-up for participants in the intensive treatment group. However, despite these possibly diverse trends, neither reported nor observed child behaviour was found to be different between the intensive and standard groups at outcome. Given that the cost of this treatment was at least twice that of standard treatment, it remains to be seen whether longer term outcome will be deemed to justify this input.

Both groups reported similar numbers of participants who made reliable and clinically important change. A considerable amount of time was given to imparting social learning skills to mothers in the intensive group, so the implication was that this type of intervention, although identified as the most effective for disruptive behaviour problems, also had its limitations. The rationale for looking at the role of adult attachment in parent training for the mothers of children with severe disruptive behaviours was introduced, emphasising the relationship context for all involved in the training. The review of adult

attachment literature which followed, presented an outline of how the concept developed from infant attachment, the hypothesised role of working models, and the two main traditions of measurement, the Adult Attachment Interview and self-report of close relationships. Selections were then made from the substantial available literature, to develop the argument that all the factors identified as influential in the development and maintenance of disruptive behaviours, and also implicated in treatment outcome, could be regarded as predictable concomitants of adult attachment styles. Evidence from the literature led to the conclusion that adult attachment issues would be involved in outcome from parent training.

Analysis of data from a subsample of participants in the Bangor Project for Children with Disruptive Behaviours showed that child behaviour outcome from behavioural parent training was more predictable for secure participants than for insecure participants. Results from an exploratory regression equation indicated that baseline child behaviour, psychosocial variables, the duration of the problem and attachment status and the interaction between attachment status and child behaviour, predicted a large proportion of the variance in child behaviour after parent training (60%). Attrition was less for secure as opposed to insecure participants.

How do these findings inform treatment for children with disruptive behaviours?

Parent training based on social learning principles is well established as the most effective treatment in reducing children's disruptive behaviours. The service offered by the North West Wales Trust's Child and Adolescent Mental Health Service resulted in considerable improvement using this approach. The Bangor Project for Children with Disruptive Behaviours demonstrated that providing more of this treatment in the particular format in which it was delivered, probably improved outcome to some extent. However, the anticipated clear cut effect of more intensive initial exposure to the theory and practice of behavioural management did not occur. Within this thesis, there have arisen several ways of interpreting these findings. Wahler and Meginnis (1997) have

shown that in mother-child dyads where there are not problems of disruptive behaviours, child compliance increased according to mothers' responsiveness rather than use of techniques. The literature review in Chapter Five strongly indicated that maternal responsiveness is related to adult attachment, hence the social contingencies provided by secure mothers would be likely to be better context for implementing the techniques. Wahler and Meginnis suggest that mirroring and praise may be markers for a more complex parenting process. They conclude that maternal responsiveness may be 'a basic process in effective parenting practices' and that 'Although we have yet to devise a well-documented procedure to teach parent responsiveness, the available evidence suggests that it is imperative to do so' (p. 439).

Kazdin and Wassell (1999) reported that little or no therapeutic change is predicted by subject and demographic variables, as described earlier in this thesis. These researchers focused on predictors which emerge in the context of treatment delivery as being most helpful in improving treatment efficacy. They identified parent perceptions and experiences during treatment as impacting on change, using a barriers-to-treatment model. In addition to practical obstacles, they considered parental perceptions relating to the demands of treatment, the relevance of treatment to the child's problems, and the relationship with the therapist, as possible obstacles to treatment. Kazdin and Wassell found that in cognitive-behavioural treatment for children's disruptive behaviours, perceived barriers influenced levels of participation in treatment both in keeping appointments and in adherence to and evaluation of the treatment programme. They found that fewer perceived barriers acted as a protective factor. Perceived barriers contributed additionally to change when other factors were taken into account, and significantly predicted outcome. Such parental perceptions have been shown in this thesis to be strongly associated with attachment representations, the implication being that perceptions would change if attachment issues were successfully addressed.

One of the main findings from the literature reviewed in Chapters Four and Five in this thesis which relates to therapeutic change, was that insecure attachment representations are associated with biased assessments of interpersonal situations. For example, Andersson and Perris (2000) reported clear correlations between dysfunctional assumptions and adult attachment styles. The chapters detailed the role of adult attachment status in shaping individuals' perceptions. Working models of attachment are inherently relational models which embody perceptions of self and of others, and also the implicit strategies which are activated when security is threatened. Hence they include cognitive bias relating to attentional processes, levels of vigilance for possible threats, how emotional arousal is managed and the amount of cognitive flexibility available when an individual is confronted with additional or discrepant information about the self or about others (Lopez & Brennan, 2000). Under conditions of stress, working models serve to guide attributions and explanations in contexts which will tend to be unstable. Individuals with secure attachment representations are more adaptive in organising their perception, attributions and affective states. The attachment systems of insecure individuals will by definition be chronically hyperactivated (preoccupied, fearful, anxious-ambivalent) or deactivated (dismissing or avoidant) and this, combined with the influence of positive or negative views of self and others, will result in tendencies to think, feel and behave in particular ways. So the fearful individuals, who comprised the major part of the insecure group in the study reported in this thesis, by definition reported high emotional distress and by extension were highly focused on negative emotions. Unlike preoccupied individuals, they will find it difficult to seek support because of having negative models of others. As more fully described in Chapter Five, individuals with secure representations show more flexible and benign cognitive processes, and more sensitive and collaborative skills in relating to other people which are associated with more positive and more coherently organised developmental histories. Insecure individuals are impaired in some of these respects and thus more vulnerable to

feeling distressed or depressed, to difficulties in relating to others, and in adapting to accommodate new or different elements. In terms of relating to the therapist and to family, secure participants will tend to maximise positive engagement, whereas this is likely to be problematic for individuals rated insecure. Lopez and Brennan state that 'both primary [secure] and secondary [insecure] strategies respectively shape personality and development by orienting the individual to be differentially responsive (and reactive) to different types of stress, different forms of performance feedback, and to be differentially inclined to seek and construct relationships with others' (Lopez & Brennan, 2000, p. 10).

It is a central tenet of attachment theory that stress is a necessary prerequisite for the activation of the attachment system and hence for the valid assessment of attachment indices (Simpson & Rholes, 1994). Extreme externalising behaviour is a particularly appropriate stressor in terms of activating adults' attachment systems, because it is very much relationship-based and would be likely to arouse mothers' feelings about their own childhood relationships and accentuate mothers' own need for an attachment figure.

In terms of informing the process of therapy, adult attachment research has confirmed that individuals with insecure representations are over-represented in clinical samples (Mickelson, Kessler & Shaver, 1997). They are also more at risk for psychological problems including depression, and for individuals with a fearful attachment style, this depression is predominantly self-critical (Zuroff & Fitzpatrick, 1995). Brennan and Shaver (1998) found that secure individuals scored lower on personality disorder scales. Fearful individuals scored highly on measures indicating both over- and under- activation of the attachment system; on disordered patterns of thinking and on compound symptom scales (e.g. borderline). Different patterns of interpersonal problems are related to different insecure styles. Horowitz et al. (1991) found that fearful individuals were likely to report social inhibition and passivity, whereas dismissing individuals tended to report problems relating to lack of warmth in

social interaction. Preoccupied individuals were controlling and dominating in the relationships which they depended on to maintain self-esteem (Horowitz et al., 1991; Horowitz, Rosenberg & Bartholemew, 1993). Horowitz et al. (1993) reported that in terms of seeking help for themselves, individuals who tend to use hyperactivating or deactivating strategies are differently disposed. As reported earlier, they are also disposed to showing different levels of distress and affectivity (e.g. Kemp & Neimeyer, 1999; Searle & Meara, 1999, respectively). Preoccupied individuals showed high levels of intrusive psychological symptoms and overall psychological distress in comparison with secure individuals (Kemp & Neimeyer, 1999). A study using undergraduates, looking at aspects of emotional experience relevant to the therapeutic situation, found that preoccupied individuals displayed more changeable emotions and were more expansive in their emotional self-presentation; fearful individuals showed both emotional intensity and restricted emotional expression (Searle & Meara, 1999).

The formation of effective therapeutic alliances will also be affected by client (and therapist) attachment style, and the therapeutic relationship itself is a vehicle for change, as shown in a series of studies by Mallinckrodt and colleagues (Mallinckrodt, 2000; Mallinckrodt, Coble & Gantt, 1995; Mallinckrodt, Gantt & Coble, 1995; Mallinckrodt, King & Coble, 1998). These confirmed that individuals who use deactivating strategies are less likely to seek help. They found that less anxious clients who were less fearful of being abandoned were more likely to form positive therapeutic relationships. Current adult attachment orientations predicted working alliance. Comfort with closeness was related to stronger working alliances (Kivlighan, Patton, & Foote, 1998). Therapists' experience was unrelated to client-rated alliance, but these researchers reported that comfort with closeness moderated the relationship between therapist experience and working alliance. More experienced therapists as opposed to those with less experience, received higher ratings from clients who were less comfortable with closeness.

Bowlby viewed the relationship between client and therapist as the context for change (Bowlby, 1988). This relationship is important in parent training as it is in all therapeutic situations. Both secure and insecure mothers will function best in a trusting relationship which accommodates the strategies they use when under stress and which encourages them to consider how the feelings they experience and their biases and cognitions may arise. The aim of therapy with mothers of children with disruptive behaviours is to reduce the severity of the behaviours, and with insecure mothers it may be appropriate to work more directly to minimise the negative consequences of insecure attachment as well as promoting constructive problem-solving and coping with stress. Otherwise, the attachment needs of insecure participants would compound the difficulties of the task. Such an approach would promote learning and well-being and be more likely to result in more positive longer-term outcome. Addressing the attachment needs of participants in parent training is appropriate because for insecure clients, this would mean helping them to regulate their affective states, and examine and revise their inaccurate models of self and others. After parent training and improvement in their children's behaviours, the insecure group in the study reported in this thesis still reported levels of mental health difficulties which were above clinical cut-off.

The influence of parental perceptions on the process of therapy and treatment outcome was not examined in this thesis. Also, the lack of independent observation measures of children's behaviour prior to treatment and the lack of an observation measure of parental discipline, did not allow change to be measured objectively. However, there were indications within the data that perceptions were important. In terms of child behaviour, it would have been expected that perceptions would differ between secure and insecure groups. The Eyberg Child Behavior Inventory forms used as the screening instrument for inclusion in the study were completed about seven weeks prior to baseline measures. The intensity score reflects the number of problematic behaviours reported by the mother, and the total problem score indicates how much of a problem

those behaviours are to her. There was a statistically significant difference between secure and insecure groups only on the total problem score where insecure participants reported greater problems. On the Child Behavior Checklist, there was no difference between the groups in baseline scores, nor on the measure of difficult child behaviour and temperament on the Parenting Stress Index. However, the insecure group reported significantly greater levels of parental distress. This subscale includes a measure of depression, indicating the parent's emotional availability to the child. The insecure group showed greater lack of satisfaction relating to interaction with the child, and stronger perception that the child does not meet the parent's expectations and is a negative element in the parent's life. The lack of difference on reports of child behaviour was possibly a function of the fact that only children whose scores were at the highest end of the scale were invited to take part in the study. In terms of reporting change, the groups reported similar change in their children. Both groups reported lower levels of parenting stress, but there was little change in the reports of the secure mothers who still reported clinically significant levels of stress, in keeping with their children's lower, but still significant levels of externalising behaviour. Insecure mothers reported levels of parenting stress at follow-up which were below clinically significant levels although their children's behaviour was still rated at clinical levels.

Findings from this study have shown that attachment status could be important to the identification of groups in which mechanisms might be different. The insecure group started therapy reporting clinical levels of depressed mood, general mental health and parenting stress which were statistically significantly different from levels reported by secure participants. Levels of depressed mood and general mental health fell below clinical cut-off in the secure group and would not have been addressed in a therapeutic context (for example, baseline BDI for the secure group was 7, SD 6, and for the insecure group, 19, SD 15. Appendix Y gives details). Discipline was dysfunctional in

the secure group at levels established for a clinical group of mothers of younger children, but the discipline practice of insecure mothers was more extreme, and significantly different in terms of verbosity from the secure group. Hence the insecure mothers were disadvantaged in parent training because on the whole, psychological resources determine the quality of parenting (Belsky, 1984), and these parents would be likely to make negative attributions towards their children (e.g. Dadds & Powell, 1991). They would be attempting to develop a different relationship with their child through learning and implementing discipline techniques when the low mood they are experiencing restricts cognitive processing and emotional responsiveness.

For these reasons, different outcome from parent training was expected. However, differences did not emerge in terms of quantity of child behaviour change but in terms of indicating different mechanisms achieving change. In the regression analysis reported in Chapter Six, despite baseline differences in mental health variables, the psychosocial risk index and baseline levels of child behaviour did not predict change in externalising behaviour. It was only when attachment status and the interaction variable were included in the equation that a model was produced which accounted for a considerable proportion of change (41%). When the duration of the problem was included, this quantity increased to 60%. The literature indicates that secure mothers should be more resilient than insecure mothers. The mean duration of the problems reported by the secure group was over seven months longer than that reported by insecure mothers, indicating that fearful mothers sought help sooner, possibly because their tolerance levels were lower than those of secure mothers.

The association of attachment status with maternal perceptions provides clues as to possible explanations about how the findings may be interpreted in the context of the sample and the treatment the mothers received. Insecure mothers would possibly interpret the meaning of their children's undesirable behaviours in more negative and all-

pervasive ways than would secure mothers. For example, such behaviour could confirm feelings and beliefs that they, the mothers, are unlovable, and this would reinforce a sense of inadequacy, especially given that insecure mothers would not feel able to depend on and trust those closest to them to be supportive and share responsibility. Given their own attachment needs, these mothers would tend to over-estimate change, possibly because it would have been unexpected so when it occurred it was more striking; or possibly as a result of being gratified by therapist attention and wanting to please. The duration of the problem would be more likely to compound problems in families where mothers were insecure and their children were displaying disruptive behaviours.

The effect of child behaviour may be exacerbated in insecure mothers. In this study, most insecure participants were fearful, reporting high levels of anxiety in relationships, being uncomfortable with closeness in important relationships, and reporting low levels of believing that their closest people are dependable and trustworthy. This is the only attachment category which does not include more positive elements in its composition. As discussed earlier, fearful individuals consistently perceive events to be stressful in a way that secure individuals would not. The stress they experience feeds into higher levels of depressed mood and general mental health. It would appear that, rather than attachment acting as a mediator between stressful events and psychopathology, stressful events mediate the role between fearful attachment and psychopathology. Pielage, Gerlsma and Schaap (2000) analysed the questionnaire responses and videotapes of interaction in 51 student couples who had been together for about two years. They concluded that individuals with fearful attachment representations perceive and interpret events as being stressful and this seems to increase their vulnerability to experience psychological symptoms. In relation to the extreme externalising behaviour reported in this study, secure and insecure groups did report different relationships between attachment dimensions, mental health and child behaviour variables (Appendix CC).

That the insecure group reported higher stress levels has considerable implications for parent training. Individuals under stress will be impelled to fulfil their own attachment needs. On account of their attachment style, this will be more difficult and complicated for fearful and preoccupied mothers, and could decrease their ability to attend to and process the therapist's suggestions and their ability to attend to their child. At the same time, a conscious fear of rejection together with a negative view of herself and others would mean that fearful mothers might tend to focus more on the therapeutic relationship. Hence the suitability of the therapist might be more important for fearful mothers.

It was in keeping with the literature that attachment status appeared to influence attrition. The only secure mother to leave treatment was removed by Social Services. The three others who left were classified fearful. Again, the potential of having a negative view of the therapist and low self-confidence would make fearful participants particularly vulnerable to disengaging from treatment. Insecure mothers also had more change to achieve in altering their self-reported discipline styles (see Appendix Y) and may have found the task too onerous.

It had been thought that because the clients' capacity for collaboration and responsiveness to treatment would have been different, that differences would also have appeared in mothers' reports of satisfaction with treatment. It was expected that the relationship context would be more salient for participants in the insecure group, especially given that only one out of two original dismissive participants completed treatment. There was some evidence of this in that insecure participants' reports of child behaviour change were closely related to how they viewed the process of therapy, whereas for secure participants, reports of child behaviour change were closely associated with overall outcome for their child. Although mothers might not be aware of what might work best for them in parent training, these client satisfaction reports support

the hypothesis that different processes were more salient according to whether mothers were rated insecure (mainly fearful) or secure.

Limitations of this Study

The study has shown that different mechanisms are very likely to be operating in secure and insecure mothers of children with disruptive behaviours, which make outcome more predictable for children whose mothers are rated secure. It was unfortunate that the sample size was such that it was not possible to examine the data in any other than a tentative way to explore how different relationships between variables might contribute to outcome. Even had the attachment measure been in place before any interviews had started, and the full complement of mothers had completed the Adult Attachment Scale, numbers would still have been low. However, the results from the regression equation were readily acceptable and interpretable in the context of the preceding literature review.

This study did not properly acknowledge and evaluate the children's hyperactivity as a factor in lack of improvement. Given that the problems of hyperactive children appear less tractable this would be worth assessing. Although at the beginning of the Bangor Project for Children with Disruptive Behaviour, it was argued that for most practical purposes, specific child diagnoses are not helpful, specifying diagnostic features might be more informative. This could take place as part of the clinician's formulation of the problem prior to treatment.

The availability of a waiting list control group would have illuminated findings from the study. This would have enabled the monitoring of change when mothers were not in treatment. Only minimal changes would have been expected in child behaviour and intelligence without treatment, but this is not known. The effect of behavioural parent training within different attachment groupings could have been assessed against what happened without intervention.

Without corroborative independent reports or reliable observational data of the children's behaviour pre- and post- parent training, it was not possible to test the hypothesis that insecure mothers would have rated their children's behaviour as more extreme than secure mothers at baseline and also over-stated improvement. At baseline only two teachers of children whose mothers were rated secure, completed the report forms, and three at follow-up. In the insecure group, five teachers completed baseline reports and four at follow-up. The use of the Brown Circles task with Wahler's coding system may have been too limited in scope to provide an adequate range of appropriate data. Unlike when used by Wahler, mother and child sat together for ten minutes, which could still have been unusual after treatment and would have added to any self-consciousness experienced by the dyad in an already somewhat artificial situation. The codes were developed for use with families who had a child with disruptive behaviours, and have been found to be most revealing when used to code runs of interchanges which was not how they were employed in the Bangor Project for Children with Disruptive Behaviours. However, the coding did reveal theoretically meaningful relationships between reported maternal mental health and maternal and child behaviours on the task. Observational measurement beforehand for the whole sample would have allowed baseline and follow-up comparisons which were independent of parental report and would have contributed to the measurement of reliable and clinically important change. Reliable change, although reasonably stringently assessed in this study, was still based on maternal report, and it could be that combining this with observed change would have been more informative for longer-term outcome. There is validity for the individual in the assessment of change, but how this impacts on the maintenance of change was not explored in this study. Given the relevant literature to date, it would be assumed that change assessed by secure participants would be longer lasting. Interim measures would also have informed process. It could also be that in combination with counts of

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behaviours, an assessment of maternal emotional availability could be telling both for the context and maintenance of change.

The use of a self-report measure for assessing adult attachment was appropriate given the theoretical and clinical approach adopted for the Project reported in Chapters Two and Three and the demands made on participants. The Adult Attachment Scale chosen for the study was fairly short and relatively easy to complete (apart from one question where double negatives are used). The results from using it were in keeping with the bulk of the studies reported in the literature reviewed. However, it added to factors to be considered in interpreting differences in findings from the only other study to look at attachment issues in outcome from parent training, albeit retrospectively, which used the Adult Attachment Interview (Routh et al., 1995). Also, although widely referenced, the Adult Attachment Scale has not been widely used by other researchers, partly on the grounds that its three-dimensional factors (Close, Depend and Anxiety in relationships) do not directly correspond well to existing categorical or dimensional models of attachment theory. This does not undermine its performance here, but again makes comparisons difficult. Researchers, including Collins, are now focusing on dimensions of anxiety and avoidance, and while the Anxiety in relationships dimension of the Adult Attachment Scale corresponds to an anxious/ambivalent dimension, the correlated close and depend dimensions may well represent two different measures of avoidance (Carver, 1997). Whilst Collins and Read's measure made a contribution to the argument over conceptualisation of attachment style, the measure produced has been superseded. This is a common problem within the burgeoning research relating to adult attachment. The number and names for attachment categories differ; some researchers concentrate on categories, others on dimensions; self-report measures are predominantly used because of their ease of administration, although this will vary according to resources and the focus of interest in the study. In this study, the use of the Adult Attachment Interview might have illuminated findings in a different way because of the

focus on parenting. However this does not undermine the role of self-report measures. It also needs to be considered that attachment representations appear different according to whether attachment is measured in relation to peers, partners, or parents. Adults use multiple models (e.g. Collins & Read, 1994) but in the literature attachment is usually conceived of and assessed as one model. According to the researchers' approach, attachment may be seen more as a property of an individual or more as a property of a relationship. As yet, there is no common method of conceptualising and assessing adult attachment so as to make it easier to compare findings. However, the area of self-report adult attachment is developing rapidly, and the measure in the self-report of close relationships tradition which currently looks the most promising (the Experience of Close Relationships Scale; Brennan, Clark & Shaver, 1998) was not available at the time the Project started. It is too early to tell how informative comparisons will be between self-report measures and the new Adult Attachment Projective Scale (George & West, 2001), but these new measures will contribute to the debate over concepts. Bartholemew and Shaver (1998) suggest that a single representational system might underlie response to different attachment measures but that individuals' specific patterns of attachment vary according to the particular type of relationship under investigation. The Adult Attachment Scale used in this study indicated stability of attachment ratings between baseline and follow-up, indicating that in this extreme sample, the relational schemas activated at each timepoint were very similar or that ratings reflected a lasting general disposition. However, not enough was known about the mothers' intimate relationships and how they might have changed to be sure of this assumption.

There was no assessment of participants' relationships with their partners, apart from the attachment measure itself, where it could not necessarily be assumed that the relationship with her partner was the close relationship involved. This would have added to the information about secure and insecure mothers' working models of relationships and provided fuller context for how the behavioural techniques were implemented in the

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home setting. It is likely that in a large sample, there would be some correspondence between mothers' attachment status and that of their partners. This could not be assumed in this study. Cowan, P., Cohn, Cowan, C. and Pearson (1996) have discussed the importance of understanding the role of gender and marital relationships in addition to parental attachment histories in relation to children's externalising behaviours. They report that fathers who express more anger towards their partners are more likely to have children with more externalising behaviours; the same holds for children of couples showing more negative emotion towards each other and that men in more negative relationships are rated as less effective parents. It was not within the remit of the Bangor Project to take these additional factors into account but given the considerable numbers who do not benefit given current approaches, they warrant attention. This is particularly the case given that there could be stronger links between fathers' as opposed to mothers' attachment histories and children's externalising behaviour (Cowan et al., 1996).

It was unfortunate that there was no measure of therapist attachment. The literature has indicated that matching of therapist and client variables is important to outcome, and there is no reason to suppose that this is not also the case in behavioural parent training. The therapist's responsiveness is important in all therapeutic relationships. Therapist attachment status will affect the relationship between therapist and client, and hence, possibly, attrition. That relationship is also the context of delivery of parenting skills, and it would be hypothesised that insecure participants might find it more difficult to learn new skills, and more so if the therapist herself was not secure in her attachment style. Therapist and client matching by attachment status would maximise the effects of teaching and learning and implementing behavioural techniques.

Also relevant to parents' learning and problem solving would have been a measure of adult intelligence. There were indications through its association with child intelligence that the Parent-Child Autobiographical Memory Test might act as such a

measure, but this was not its purpose, and a separate measure would have been appropriate.

The programme was behavioural parent training. However, therapists respond to their clients' personalities and needs and most would alter their presentation of treatment according to the individual needs of their clients. One therapist reported addressing attachment issues with the mother, and although this mother was not part of the attachment study because she did not complete the attachment measure at baseline, it is not possible to know what issues were addressed by the therapists which were other than behavioural. This, in combination with the fact that therapists had different duration of experience and presumably slightly different commitment to the approach, means that, as in many clinical studies, mothers' experience of treatment may not have been as similar as supposed. The research reported in this study has shown how it could be important to know considerably more about who is delivering a type of treatment, and the therapist's attachment status is an important variable along with experience, effectiveness and preferred approach.

The child's behaviour may itself result from an activation of strategies designed to achieve felt security. This was not explored in the context of this thesis, but it would be hypothesised that within the group of insecure mothers, the children's externalising behaviours might be understood differently and additional help offered to parents for overall better family functioning. The child's externalising behaviour occurs in the context of relationships involving secure or insecure adults and possibly other children. A measure of the children's attachment would have enriched the picture, and enabled exploration of whether training is more effective in particular combinations of dyads. Speltz, DeKlyen and Greenberg (1999) found that although more boys with early onset conduct problems showed insecure attachment, attachment variables explained little future variation in problem severity. Given that children's attachment status is an integral

part of their relationship with their mothers, it could well be that attachment status would be a factor in their response to their mothers' change in discipline.

This thesis has shown that adult attachment issues are involved in outcome from parent training. This is potentially important for addressing the problem of disruptive behaviours. The thesis showed that even with considerable input of social learning principles, many participants did not report reliable clinical change in their children. Attachment representations were demonstrated to be associated with most aspects of factors relating to both the development and maintenance of disruptive behaviours. Attachment theory offers a theoretical approach which convincingly encompasses theories of onset of dysfunction for child and adult, and this thesis has indicated that it offers a way of understanding how treatment achieves therapeutic change. Such understanding is needed to optimise the effects of treatment in clinical work. However, it remains to be explored whether interventions based on attachment theory which encompass behavioural parent training would be more effective with insecure mothers in this client group of exceptionally difficult and disturbed children. The approach described by Scott, where, when there are severe difficulties, parents are individually helped with problems such as abuse in their own childhoods, appears to approximate this (Scott, 1998b). Wahler and colleagues are developing synthesis teaching, where attachment-related issues are integral to treatment. This form of psychotherapy uses parents' personal narratives to integrate proximal and distal context so that they are perceived as integrated but not confounded. Firstly a common theme is detected in parents' stories about their child care experiences; this is then discussed with the therapist so that the parent recognises its presence across diverse stories; the theme is then expanded through comparison with other themes and stories beyond child care. Developing an awareness of distal context and its impact on parenting may help to improve treatment outcome for parents who do not appear to benefit from parent training programmes (Wahler, Cartor, Fleischman & Lambert, 1993).

Before such research takes place, a clearer picture of the role of adult attachment in parent training is needed, and this could be achieved by implementing revisions to address the limitations discussed here. Future studies would need to be planned in the light of these. The additions to the study which would have informed process better would have been using a larger sample size and a no treatment control group; running the study over a time period to include interim measures so as to understand change; taking a measure of the children's hyperactivity; a measure of the marital relationship and of adult intelligence; using a reliable observation method before and after treatment; measuring therapist attachment status. Additionally, using both a self-report measure and the Adult Attachment Interview would enable comparison as to which type of approach is more helpful.

Conclusions

Attachment theory offers a framework for understanding personal factors and relational dynamics in clients who attend for help for their children with extremely disruptive behaviours. It suggests how cognitive, affective and relational processes relate to each other and how an integrated pattern of responses is set in motion in therapy. Such understanding opens ways of conceptualising and approaching problems which may turn out to be an essential part in addressing the problem of the most intractable disruptive behaviours.

The extent of the problem of disruptive behaviours is such that there is a drive to find effective solutions. For ethical and financial reasons, there is an emphasis on what can be done within the shortest time limits to improve outcome for these children and their families. This thesis has demonstrated different predictability in outcome according to secure or insecure attachment status, and suggests that some lack of success in parent training programmes may be because suboptimal adult attachment patterns are not changed over the course of therapy. It suggests that whatever means are chosen to

impart management skills based on social learning principles, an awareness of the nature of an individual's chronic problems in close relationships may be used to optimise clinical outcome.

REFERENCES

Abidin, R. R. (1990). <u>Parenting Stress Index</u>. Odessa: PAR.

Abidin, R. R. (1995). <u>Parenting Stress Index</u>. 3rd. edition. Odessa: PAR.

Achenbach T. (1991). <u>Manual for the Child Behavior Checklist/4-18 and 1991 Profile</u>. Burlington, VT: Author.

Achenbach, T. M., & Edelbrock, C. S. (1986a). <u>Child Behavior Checklist and Youth Self-Report</u>. Burlington, VT: Author.

Achenbach, T. M., & Edelbrock, C. S. (1986b). <u>Teacher's Report Form</u>. Burlington, VT: Author.

Achenbach, T. M., McConaughy, S. H., & Howell, C. T. (1987). Child adolescent behavioral and emotional-problems: Implications of cross-informant correlations for situational specificity. <u>Psychological Bulletin, 101</u>, 213-232.

Aguilar, B., Sroufe, L. A., Egeland, B., & Carlson, E. (2000). Distinguishing the early-onset/persistent and adolescence-onset antisocial behavior types: From birth to 16 years. <u>Development and Psychopathology, 12</u>, 109-132.

Ainsworth, M. D. S. (1985). Attachments across the lifespan. <u>Bulletin of the New York Academy of Medicine, 61</u>, 792-811.

Ainsworth, M. D. S. (1991). Attachments and other affectional bonds across the life cycle. In: C. M. Parkes, J. Stevenson-Hinde & P. Marris (Eds.), <u>Attachment across the life cycle</u>. New York: Routledge. Pp. 33-51.

Ainsworth, M. D. S., Blehar, M., Waters, E., & Wall, S. (1978). <u>Patterns of attachment: A psychological study of the Strange Situation</u>. Hillsdale, NJ: Lawrence Erlbaum.

Ainsworth, M. D. S., & Eichberg, C. G. (1991). Effects on infant-mother attachment of mother's experience related to loss of an attachment figure. In: C. M. Parkes, J. Stevenson-Hinde, & P. Marris (Eds.), <u>Attachment across the life cycle</u>. New York: Routledge. Pp. 160-183.

Alexander, R., Feeney, J., Hohaus, L., & Noller, P. (2001). Attachment style and coping resources as predictors of coping strategies in the transition to parenthood. <u>Personal Relationships, 8</u>, 137-152.

Alloy, L. B., Abramson, L. Y., Whitehouse, W. G., Hogan, M. E., Tashman, N. A., Steinberg, D. L., Rose, D. T., & Donovan, P. (1999). Depressogenic cognitive styles: predictive validity, information processing and personality characteristics, and developmental origins. <u>Behaviour Research and Therapy, 37</u>, 503-531.

Alpern, L., & Lyons-Ruth, K. (1993). Pre-school children at social risk: Chronicity and timing of maternal depressive symptoms and child behavior problems at school and at home. Development and Psychopathology, 5, 371-387.

American Psychiatric Association (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC; Author.

Anders, S. L., & Tucker, J. S. (2000). Adult attachment style, interpersonal communication competence, and social support. Personal Relationships, 7, 379-389.

Anderson, K. E., Lytton, H., & Romney, D. M. (1986). Mothers' interactions with normal and conduct-disordered boys: Who affects whom? Developmental Psychology, 22, 604-609.

Andersson, P., & Perris, C. (2000). Attachment styles and dysfunctional assumptions in adults. Clinical Psychology and Psychotherapy, 7, 47-53.

Appelbaum, M., Batten, D. A., Belsky, J., Booth, C., Bradley, R., Brownell, C. A., Burchinal, M., Caldwell, B., Campbell, S. B., Clarke-Stewart, A., Cox, M., Friedman, S.L., Hirsh-Pasek, K., Huston, A., Knoke, B., Marshall, N., McCartney, K., O'Brien, M., Owen, M. T., Phillips, D., Pianta, R., Spieker, S., Vandell, D. L., & Weinraub, M. (1999). Chronicity of maternal depressive symptoms, maternal sensitivity, and child functioning at 36 months. Developmental Psychology, 35, 1297-1310.

Appleton, P. L. (1994).Smoking cessation and social support during pregnancy: A longitudinal study of the impact of close relationship support on smoking cessation in pregnancy. Ph.D., Liverpool, 44-7940.

Arnold, D. S., O'Leary, S. G., Wolff, L. S., & Acker, M. M. (1993). The Parenting Scale: A measure of dysfunctional parenting in discipline situations. Psychological Assessment, 5, 137-144.

Asendorpf, J. B., & Wilpers, S. (2000). Attachment security and available support: Closely linked relationship qualities. Journal of Social and Personal Relationships, 17, 115-138.

Audit Commission (1999). Children in mind - A report on child and adolescent mental health services. London, Audit Commission.

Baddeley, A., Emslie, H., & Nimmo-Smith, I. (1993). The Spot-the-Word Test: A robust estimate of verbal intelligence based on lexical decision. British Journal of Clinical Psychology, 32, 55-65.

Bakermans-Kranenburg, M. J., Juffer, F., & van IJzendoorn, M. H. (1998). Interventions with video feedback and attachment discussions: Does type of maternal insecurity make a difference? Infant Mental Health Journal, 19, 202-219.

Baldwin, M. W., & Fehr, B. (1995). On the instability of attachment style ratings. Personal Relationships, 2, 247-261.

Bank, L., Marlowe, J. H., Reid, J. B., Patterson, G. R., & Weinrott, M. R. (1991). A comparative-evaluation of parent-training interventions for families of chronic delinquents. Journal of Abnormal Child Psychology, 19, 15-33.

Barber, J. P., Connolly, M. B., Crits-Christoph, P., Gladis, L., & Siqueland, L. (2000). Alliance predicts patients' outcome beyond in-treatment change in symptoms Journal of Consulting and Clinical Psychology, 68, 1027-1032.

Barkley, R. A. (2000). Commentary: Issues in training parents to manage children with behavior problems. Journal of the American Academy of Child Adolescent Psychiatry, 38, 1004-1007.

Barkley, R. A., Shelton, T. L., & Crosswait, C. (2000). Early psycho-educational intervention for children with disruptive behavior: preliminary post-treatment outcome. Journal of Child Psychology and Psychiatry, 41, 319-332.

Barry, C. T., Frick, P. J., De Shazo, T. M., McCoy, M. G., Ellis, M., & Loney, B. R. (2000). The importance of callous-unemotional traits for extending the concept of psychopathy to children. Journal of Abnormal Psychology, 109, 335-340.

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. Journal of Personality and Social Psychology, 61, 226-244.

Bartholomew, K., & Shaver, P. R. (1998). Methods of assessing adult attachment: Do they converge? In J. A. Simpson & W. S. Rholes (Eds.), Attachment theory and close relationships, (pp. 25-45). New York: Guilford Press.

Baumrind, D. (1966). Effects of authoritative control on child behavior. Child Development, 37, 887-907.

Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. Genetic Psychology Monographs, 75, 43-88.

Baumrind, D. (1971). Current patterns of parental authority. Developmental Psychology Monograph, 4 (No. 1, Pt. 2).

Baumrind, D. (1983). Rejoinder to Lewis' reinterpretation of parental firm control effects: Are authoritative families really harmonious? Psychological Bulletin, 94, 132-42.

Baumrind, D. (1991). Parenting styles and adolescent development. In J. Brooks-Gunn, R. Lerner & A. C. Peterson (Eds.), The encyclopedia of adolescence, (pp. 746-758). New York: Garland.

Baumrind, D., & Black, A. E. (1967). Socialization practices associated with dimensions of competence in preschool boys and girls. Child Development, 38, 291-327.

Beck, A. T., Steer, R. A., & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory - 25 years of evaluation. <u>Clinical Psychology Review, 8</u>, 77-100.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An Inventory for measuring depression. <u>Archives of General Psychiatry, 4</u>, 561-571.

Behar, L., & Stringfield, S. (1974). A behavior rating scale for the preschool child. <u>Developmental Psychology, 10</u>, 601-610.

Bell, R. Q., & Harper, L. V. (1977). <u>The effects of children on parents</u>. Hillsdale, NJ: Erlbaum.

Belsky, J. (1981). Early human experience: A family perspective. <u>Developmental Psychology, 17</u>, 3-23.

Belsky, J. (1984). The determinants of parenting: A process model. <u>Child Development, 55</u>, 83-96.

Belsky, J., Campbell, S., Cohn, J. F., & Moore., G. (1996). Instability of infant-parent attachment security. <u>Developmental Psychology, 32</u>, 921-924.

Belsky, J., Woodworth, S., & Crnic, K. (1996). Troubled family interaction during toddlerhood. <u>Development and Psychopathology, 8</u>, 477-495.

Bennett, D. S., Gibbons, T. A. (2000). Efficacy of child cognitive-behavioral interventions for antisocial behavior: A meta-analysis. <u>Child and Family Behavior Therapy, 22</u>, 1-15.

Bergeron, L., Valla, J. P., Breton, J. J., Gaudet, N., Berthiaume, C., Lambert, J., St. Georges, M., & Smolla, N. (2000). Correlates of mental disorders in the Quebec general population of 6 to 14-year olds. <u>Journal of Abnormal Child Psychology, 28</u>,47-62.

Beutler, L. E. (1997). The psychotherapist as a neglected variable in psychotherapy: An illustration by reference to the role of therapist experience and training. <u>Clinical Psychology: Science and Practice, 4</u>, 44-52.

Bierman, K. L., Coie, J. D., Dodge, K. A., Greenberg, M. T., Lochman, J. E., McMahon, R. J., & Pinderhughes, E. E. (1999). Initial impact of the fast track prevention trial for conduct problems: I. The high-risk sample. <u>Journal of Consulting and Clinical Psychology, 67</u>, 631-647.

Biringen, Z. (2000). Emotional availability. <u>American Journal of Orthopsychiatry, 70</u>, 104-114.

Block, J. (1971). <u>Lives through time</u>. Berkeley, CA: Bancroft Books.

Boggs, S. R., Eyberg, S., & Reynolds, L. A. (1990). Concurrent validity of the Eyberg Child Behavior Inventory. <u>Journal of Clinical Child Psychology, 19</u>,75-78.

Bohman, M. (1996). Predisposition to criminality: Swedish adoption studies in retrospect. Ciba Foundation Symposium (Netherlands), 194:99-109; discussion 109-14.

Bor, W., Najman, J. M., Andersen, M. J., O'Callaghan, M., Williams, G. M., & Behrens, B. C. (1997). The relationship between low family income and psychological disturbance in young children: an Australian longitudinal study. Australian and New Zealand Journal of Psychiatry, 31, 664-675.

Bornstein, M. H. , Haynes, M. O., & Painter, K. M. (1998). Sources of child vocabulary competence: a multivariate model. Journal of Child Language, 25, 367-393.

Bornstein, M. H., & Tamis-LeMonda, C. S. (1989). Maternal responsiveness and cognitive development in children. New directions for Child Development, 43, 49-61.

Bowlby, J. (1969). Attachment and Loss, vol. 1: Attachment, New York: Basic Books.

Bowlby, J. (1973). Attachment and loss: Separation: anxiety and anger. New York: Basic Books.

Bowlby, J. (1980). Attachment and Loss, vol. 3: Loss, Sadness and Depression, London. Hogarth Press.

Bowlby, J. (1988). A secure base: Clinical applications of attachment theory. London : Routledge,

Bowling, A. (1997). Research methods in health. Buckingham: Open University Press.

Brandon, K. A., Kehle, T. J., Jenson, W. R., & Clark, E. (1990). Regression, practice, and expectation effects on the Revised Conners Teacher Rating Scale. Journal of Psychoeducational Assessment, 8, 456-466.

Brennan, K., Clark, C. L., & Shaver, P. (1998). Experiences in Close Relationships. In J. A. Simpson & W. S. Rholes (Eds.), Attachment theory and close relationships. New York: Guilford Press. A copy of the measure is available from kbrennan@psych1.psy.sunysb.edu.

Brennan. K. A., & Shaver, P. R. (1998). Attachment styles and personality disorders: Their connections to each other and to parental divorce, parental death, and perceptions of parental caregiving. Journal of Personality, 66, 835-878.

Brennan. K. A., Shaver, P. R., & Tobey, A. E. (1991). Attachment styles, gender and parental problem drinking. Journal of Social and Personal Relationships, 8, 451-466.

Brenner, V., & Fox, R. A. (1998). Parental discipline and behavior problems in young children. The Journal of Genetic Psychology, 159, 251-256.

Brestan, E. V., & Eyberg, S. M. (1998). Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5,272 kids. Journal of Clinical Child Psychology, 27, 180-189.

Bretherton, I. (1985). Attachment theory: Retrospect and prospect. In I. Bretherton & E. Waters (Eds.), Growing points of attachment theory and research. Monographs of the Society for Research in Child Development, Nos. 1-2, Serial No. 209.

Bretherton, I., & Waters, E. (1985). Growing points of attachment theory and research - Preface. Monographs of The Society for Research in Child Development, 50, (1-2): R9.

Bretherton. I. (1990). Communication patterns, internal working models, and the intergenerational transmission of attachment relationships. Infant Mental Health Journal, 11, 237-252.

Brittlebank, A. D., Scott, J., Williams, J. M. G., & Ferrier, I. N. (1993). Autobiographical memory: State or trait marker? British Journal of Psychiatry, 162, 118-121.

Brown, G. W., & Harris, T. (1978). Social origins of depression: A study of psychiatric disorder in women. London: Tavistock Publications.

Brussoni, M. J., Jang, K. L., Livesley, W. J., & Macbeth, T. M. (2000). Genetic and environmental influences on adult attachment styles. Personal Relationships, 7, 283-289.

Bugental, D. B., Lyon, J. E., Lin, E. K., McGrath, E. P., & Bimbela, A. (1999). Children "tune out" in response to the ambiguous communication style of powerless adults. Child Development, 70, 214-230.

Bugental, D. B., & Shennum W. A. (1984). Difficult children as elicitors and targets of adult communication patterns - an attributional-behavioral transactional-analysis: Introduction. Monographs of the Society for Research in Child Development, 49,

Campbell, S. B. (1994). Hard-to-manage preschool boys: Externalizing behavior, social competence, and family context at 2-year follow-up. Journal of Abnormal Child Psychology, 22, 147-166.

Campbell, S. B., Pierce, E. W., March, C. L., & Ewing, L. J. (1991). Noncompliant behavior, overactivity and family stress as predictors of negative maternal control with preschool children. Development and Psychopathology, 3, 175-190.

Campbell, S. B., Pierce, E. W., Moore, G., Marakovitz, S., & Newby, K. (1996). Boys' externalizing problems at elementary school age: Pathways from early behavior problems, maternal control, and family stress. Development and Psychopathology, 8, 701-719.

Caplan, H. L., Cogill, S. R., Alexandra, H., Robson, K. M., Katz, R., & Kumar, R. (1989). Maternal depression and the emotional development of the child. British Journal of Psychiatry, 154, 818-822.

Carlson, E. A. (1998). A prospective longitudinal study of attachment disorganization/disorientation. Child Development, 69, 1107-1128.

Carlson, E. A., & Sroufe, L. A. (1995). Contribution of attachment theory to developmental psychopathology. In D. Ciccheti & D. Cohen (Eds.), Developmental Psychopathology: Vol 1. Theory and methods. New York: Wiley.

Carr, A. (2000). Evidence-based practice in family therapy and systemic consultation - I Child-focused problems. Journal of Family Therapy, 22, 29-60.

Carver, C. S. (1997). Adult attachment and personality: Converging evidence and a new measure Personality and Social Psychology Bulletin, 23, 865-883.

Cassidy, J. (2000). The complexity of the caregiving system: A perspective from attachment theory. Psychological Inquiry, 11, 86-91.

Cassidy, J., & Mohr, J. J. (2001). Unsolvable fear, trauma, and psychopathology: Theory, research, and clinical considerations related to disorganized attachment across the life span. Clinical Psychology: Science and Practice, 8, 275-298.

Cavanaugh, J. C. (1983). Comprehension and retention of television programs by 20- and 60-year-olds. Journal of Gerontology, 38, 190-96.

Census, 1991. 1991 Census of Population and Housing. London. HMSO.

Cerezo, A., Keesler, T. Y., Wahler, R. G., & Dunn, E. S. (1986). Standardised observational codes: Revision III-B. Unpublished document, Psychology Department, University of Tennessee, Knoxville.

Charlebois, P., Leblanc, M., Gagnon, C., & Larivee, S. (1994). Methodological issues in multiple-gating screening procedures for antisocial behaviors in elementary students. Remedial and Special Education, 15, 44-54.

Children Act. (1989, 1991). London: HMSO.

Christensen, A., Phillips, S., Glasgow, R. E., & Johnson, S. M. (1983). Parental characteristics and interactional dysfunction in families with child behavior problems: A preliminary investigation. Journal of Abnormal Child Psychology, 11, 153-166.

Christensen, L., & Mendoza, J. L. (1986). A method of assessing change in a single subject: An alteration of the RC index. Behavior Therapy, 18, 305-308.

Cicchetti, D., & Barmett, D. (1991). Attachment organisation in maltreated preschoolers. Development and Psychopathology, 3, 397-411.

Cohen, J. (1983). Applied multiple regression/correlation analysis for the behavioral sciences. Hillsdale, N.J. : L. Erlbaum Associates.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences. Hillsdale, N.J.: L. Erlbaum Associates.

Cohn, J. F., & Campbell, S. B. (1992). Influence of maternal depression on infant affect regulation; In D. Cicchetti & S. Toth (Eds.), Rochester Symposium on developmental psychopathology: Vol. 4. A developmental approach to affective disorders, (pp. 103-130). Rochester, NY: University of Rochester Press.

Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. Journal of Personality and Social Psychology, 71, 810-832.

Collins, N. L., & Feeney, B. C. (2000). A safe haven: An attachment theory perspective on support seeking and caregiving in intimate relationships. Journal of Personality and Social Psychology, 78, 1053-1073.

Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. Journal of Personality and Social Psychology, 58, 644-663.

Collins, N. L., & Read, S. J. (1994). Cognitive representations of attachment: The structure and function of working models. In D. Perlman & K. Bartholomew (Eds.), Advances in Personal Relationships, Vol. 5: Attachment processes in adulthood. London: Jessica Kingsley.

Comings, D. E., Chen, C., Wu, S. J., & Muhleman, D. (1999). Association of the androgen receptor gene (AR) with ADHD and conduct disorder. Neuroreport, 10, 1589-1592.

Conger, R. D., Conger, K. L., Elder, G. H. Jr., Lorenze, F. O., Simons, R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. Child Development, 63, 526-554.

Conners, C. K. (1973). Rating scales for use in drug studies with children. Psychopharmacology Bulletin, [Special issue on children], 24-42.

Conners, C. K. (1985). The Conners Rating Scales: Instruments for the assessment of childhood psychopathology. Unpublished manuscript, Children's Hospital National Medical Center, Washington, DC.

Cook, W. L. (2000). Understanding attachment security in family context. Journal of Personality and Social Psychology, 78, 285-294.

Coopersmith, S. (1967). The antecedents of self-esteem. San Francisco: W. H. Freeman & Co.

Cowan, P. A., Cohn, D. A., Cowan, C. P., & Pearson, J. L. (1996). Parents' attachment histories and children's externalizing and internalizing behaviors: Exploring family systems models of linkage. Journal of Consulting and Clinical Psychology, 64, 53-63.

Cox, A. D., Puckering, C., Pound, A., & Mills, M. (1987). The impact of maternal depression in young people. Journal of Child Psychology and Psychiatry, 28, 917-928.

Cramer, D., Henderson, S., & Scott, R. (1997). Mental health and desired social support: A four-wave panel study. Journal of Social and Personal Relationships, 14, 761-775.

Crandell, L. E., & Hobson, R. P. (1999). Individual differences in young children's IQ: A social-developmental perspective. Journal of Child Psychology and Psychiatry and Allied Disciplines, 40, 455-464.

Crandell, L. E., Fitzgerald, H. E., & Whipple, E. E. (1997). Dyadic synchrony in parent-child interactions: A link with maternal representations of attachment relationships. Infant Mental Health Journal, 18, 247-264.

Creasey, G., & Reese, M. (1996). Mothers' and fathers' perceptions of parenting hassles: Associations with psychological symptoms, nonparenting hassles, and child behavior problems. Journal of Applied Developmental Psychology, 17, 393-406.

Crittenden, P. M. (1990). Internal representational models of attachment relationships. Infant Mental Health Journal, 11, 259-277.

Crittenden, P. M. (1995). Attachment and psychopathology. In S. Goldberg, R. Muir, & J. Kerr (Eds.), Attachment theory: Social developmental, and clinical perspectives. Hillsdale, NJ: Analytic Press.

Crowell, J. A., & Feldman, S. S. (1988). Mothers' internal models of relationships and children's behavioral and developmental status: A study of mother-child interactions. Child Development, 59, 1273-1285.

Crowell, J. A., O'Connor, E., Wollmers, G., Sparfkin, J., & Rao, U. (1991). Mothers' conceptualizations of parent-child interaction and child behavior problems. Development and Psychopathology, 3, 431-444.

Crowell, J. A., & Treboux, D. (1995). A review of adult attachment measures: Implications for theory and research. Social Development, 4, 294-327.

Crowell, J. A., Waters, E., Treboux, D., O'Connor, E., Colon-Downs, C., Feider, O., Golby, B., & Posada, G. (1996). Discriminant validity of the adult attachment interview. Child Development, 67, 2584-2599.

Cummings, E. M., & Davies, P. T. (1994). Maternal depression and child development. Journal of Clinical Psychology and Psychiatry, 35, 73-112.

Cunningham, C. E. (1999). In the wake of the MTA: Charting a new course for the study and treatment of children with attention-deficit hyperactivity disorder. Canadian Journal of Psychiatry-Revue/Canadienne de Psychiatrie, 44, 999-1006.

Cunningham, C. E., Bremmer, R., Boyle, M. (1995). Large group community-based parenting programs for families of preschoolers at risk for disruptive behavior disorders - utilization, cost-effectiveness, and outcome. Journal of Child Psychology and Psychiatry, 36, 1141-1159.

Dadds, M. R. (1987). Families and the origins of child behavior problems. Family Process, 26, 341-357.

Dadds, M. R. (1992). Concurrent treatment of marital and child behaviour problems in behavioural family therapy. Behaviour Change, 9, 139-148.

Dadds, M. R., & Powell, M. B. (1991). The relationship of interparental conflict and global marital adjustment to aggression, anxiety, and immaturity in aggressive and nonclinic children. Journal of Abnormal Child Psychology, 19, 553-567.

Dadds, M. R., Sanders, M. R., Behrens, B. C., & James, J. E. (1987). Marital discord and child behavior problems: A description of family interaction during treatment. Journal of Clinical Child Psychology, 16, 192-203.

Dadds, M. R., Schwartz, S., & Sanders, M. R. (1987). Marital discord and treatment outcome in behavioral treatment of child conduct disorders. Journal of Consulting and Clinical Psychology, 55, 396-403.

Danckaerts, M., Heptinstall, E., Chadwick, O., & Taylor, E. (2000). A natural history of hyperactivity and conduct problems: self-reported outcome. European Child and Adolescent Psychiatry, 9, 26-38.

Das Eiden, R., Teti, D. M., & Corns, K. (1995). Maternal working models of attachment, marital attachment, and the parent-child relationship. Child Development, 66, 1504-1518.

DeKlyen, M. (1996). Disruptive behavior disorder and intergenerational attachment patterns: A comparison of clinic-referred and normally functioning preschoolers and their mothers Journal of Consulting and Clinical Psychology, 64, 357-365.

Department of Health, Social Services Inspectorate of the Department of Health and the Department for Education (1995). A handbook of mental health - a text in the Health of the Nation series. London, Department of Health.

Dishion, T. J. (1990).The family ecology of boys' peer relationships in middle childhood. Child Development, 61, 874-892.

Dix, T., & Lochman, J. E. (1990). Social cognition and negative reactions to children - a comparison of mothers of aggressive and nonaggressive boys. Journal of Social and Clinical Psychology, 9, 418-438.

Dix, T., Ruble, D. N., & Zambarano, R. J. (1989). Mothers' implicit theories of discipline - child effects, parent effects, and the attribution process. Child Development, 60, 1373-1391.

Doane, J. A. (1978). Family interaction and communication deviance in disturbed and normal families: A review of research. Family Process, 17, 357-376.

Dodge, K. A., Pettit, G. S, & Bates, J. E. (1994). Socialization mediators of the relation between socioeconomic status and child conduct problems. Child Development, 65, 649-665.

Dornbusch, S. M., Ritter, P. L., Leiderman, P. H., Roberts, D. F., & Fraleigh, M. J. (1987). The relation of parenting style to adolescent school performance. Child Development, 58, 1244-1257.

Downey, G., & Coyne, J. C. (1990). Children of depressed parents: An integrative review. Psychological Bulletin, 108, 50-76.

Dozier, M., Cue, K. L., & Barnett, L. (1994). Clinician as caregivers: Role of attachment organization in treatment. Journal of Consulting and Clinical Psychology, 4, 793-800.

Dozier, M., & Kobak, R. R. (1992). Psychophysiology in attachment interviews: Converging evidence for deactivating strategies. Child Development, 63, 1473-1480.

Dozier, M., & Tyrrell, C. (1998). The role of attachment in therapeutic relationships. In J. A. Simpson & W. S. Rholes, Attachment theory and close relationships, (pp. 221-248). Guilford Press, New York.

Dumas, J. E. (1984). Interactional correlates of treatment outcome in behavioral parent training. Journal of Consulting and Clinical Psychology, 52, 117-134.

Dumas, J. E., & Wahler, R. G. (1983). Predictors of treatment outcome in parent training: Mother insularity and socioeconomic disadvantage. Behavioral Assessment, 5, 301-313.

Earls, F. (1994). Oppositional-defiant and conduct disorders. In M. Rutter, L. Hersov, & E. Taylor (Eds.) Child and Adolescent Psychiatry: Modern Approaches. 3rd. edition. Oxford. Blackwell Scientific Publications.

Eddy, J, M,, Leve, L. D., & Fagot, B. I. (2001). Coercive family processes: A replication and extension of Patterson's coercion model. Aggressive Behavior, 27, 14-25.

Egeland, B., & Farber, E. (1984). Infant-mother attachment: Factors related to its development and change over time. Child Development, 55, 753-771.

Egeland, B., & Sroufe, L. A. (1981). Attachment and early maltreatment. Child Development, 52, 44-52.

Elkin, I. (1999). A major dilemma in psychotherapy outcome research: Disentangling therapists from therapies. Clinical Psychology, Science and Practice, 6, 10-32.

Emery, R. E. (1982). Interparental conflict and the children of discord and divorce. Psychological Bulletin, 92, 310-330.

Emery, R. E., & O'Leary, K. D. (1982). Children's perceptions of marital discord and behavior problems of boys and girls. Journal of Abnormal Child Psychology, 10, 11-24.

Erikson, M. F., Sroufe, L. A., & Egeland, B. (1985). The relationship between quality of attachment and behavior problems in preschool in a high risk sample. In I. Bretherton & E. Waters (Eds.), Monographs of the Society for Research in Child Development, 50(1-2), 147-166.

Estrada, P. E., Arsenio, W. F., Hess, R. D., & Holloway, S. D. (1987). Affective quality of the mother-child relationship: Longitudinal consequences for children's school related cognitive functioning. Developmental Psychology, 23, 210-215.

Evans, C., Margison, F., & Barkham, M. (1998). The contribution of reliable and clinically significant change methods to evidence-based mental health. Evidence- Based Mental Health, 1, 70-72.

Eyberg, S. M. (1980). Eyberg Child Behavior Inventory. Journal of Clinical Child Psychology, 9, 27.

Eyberg, S. M. (1992). Addressing therapy outcome with preschool children: Progress and problems. Presidential address, Journal of Clinical Child Psychology, 21, 306-311.

Eyberg, S. M., Boggs, S. R., Rodriguez, C. M. (1992). Relationships between maternal parenting stress and child disruptive behavior. Child and Family Behavior Therapy, 14, 1-9.

Eyberg, S. M., Edwards, D., Boggs, S. R., & Foote, R. (1998). Maintaining the treatment effects of parent training: The role of booster sessions and other maintenance strategies. Clinical Psychology - Science and Practice, 5, 544-554.

Eyberg, S. M. Bessmer, J. L., Newcomb, K., Edwards, D., & Robinson, E. A. (1994). Dyadic Parent-Child Interaction Coding System-II (DPICS-II): A Manual (4th rev.) Corte Madera, CA: Select Press.

Eyberg, S. M., & Robinson, E. A. (1982). Parent-child interaction training: Effects on family functioning. Journal of Clinical Child Psychology, 11, 130-137.

Eyberg, S. M., & Ross, A. W. (1978). Assessment of child behavior problems: The validation of a new inventory. Journal of Clinical Child Psychology,

Fagot, B. I. (1984). The consequence of problem behavior in toddler children. Journal of Abnormal Child Psychology, 12, 385-395.

Farrington, D. P. (1979). Environmental stress, delinquent behaviour and convictions. In Sarason, I. G., & Spielberger, C. D. (Eds.), Stress and Anxiety, 6, 93-107.

Farrington, D. P. (1995). The development of offending and antisocial behaviour from childhood: Key findings from the Cambridge Study in Delinquent Development. Journal of Child Psychology and Psychiatry, 360, 929-964.

Feeney, B. C., & Kirkpatrick, L. A. (1996). Effects of adult attachment and presence of romantic partners on physiological responses to stress Journal of Personality and Social Psychology,. 70, 255-270.

Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. Journal of Personality and Social Psychology, 58, 281-291.

Feeney, J. A., & Noller, P. (1996). Adult Attachment. Sage Series on Close Relationships. Sage Publications, London.

Feeney, J. A., Noller, P., & Hanrahan, M. (1994). Assessing adult attachment. In M. B. Sperling & W. H. Berman (Eds.) <u>Attachment in adults: Theory, assessment, and treatment,</u> (pp. 128-152). New York: Guilford.

Feldman, R., Greenbaum, C. W., &Yirmiya, N. (1999). Mother-infant affect synchrony as an antecedent of the emergence of self-control. <u>Developmental Psychology, 35,</u> 223-231.

Fendrich, M., Warner, V., & Weissman, M. M. (1990). Family risk factors, parental depression, and psychopathology in offspring. <u>Developmental Psychology, 26,</u> 40-50.

Fergusson, D. M., Horwood, L. J., & Lynskey, M. T. (1992). Family change, parental discord and early offending. <u>Journal of Child Psychology and Psychiatry and Allied Disciplines, 33,</u> 1059-1075.

Fergusson, D. M., Lynskey, M. T., & Horwood, L. J. (1996). Factors associated with continuity and changes in disruptive behavior patterns between childhood and adolescence. <u>Journal of Abnormal Child Psychology, 24,</u> 533-553.

Florian, V., Mikulincer, M., & Bucholtz, I. (1995). Effects of adult attachment style on the perception of and search for social support. <u>Journal of Psychology, 129,</u> 665-676.

Fonagy, P. (1994). Mental representations from an intergenerational cognitive science perspective. <u>Infant Mental Health Journal, 15,</u> 57-68.

Fonagy, P., Steele, H., & Steele, M. (1991). Maternal representations of attachment during pregnancy predict the organization of infant-mother attachment at one year of age. <u>Child Development, 62,</u> 891-905.

Foote, R., Eyberg, S., & Schuhmann, E. (1998).Parent-child interaction approaches to the treatment of child behavior problems. In T. H. Ollendick & R. J. Prinz, <u>Advances in Child Psychology</u>. New York: Plenum Press.

Forehand, R., Lautenschlager, G. J., Faust, J., & Graziano, W. G. (1986). Parent perceptions and parent-child interactions in clinic-referred children: A preliminary investigation of maternal depressive moods. <u>Behaviour Research and Therapy, 24,</u> 73-75.

Forehand, R., & Long, N. (1988). Outpatient treatment of the acting-out child - procedures, long-term follow-up data, and clinical problems. <u>Advances Behaviour Research and Therapy, 10,</u> 129-177.

Forehand, R. L., & McMahon, R. J. (1981). <u>Helping the noncompliant child</u>. New York: Guilford.

Fraley, C. (1998). http://psychology.ucdavis.edu/Shaver/apasum.html. Summary of discussion points from an informal American Psychological Association session held at the University of California, Davis, to discuss current issues in adult attachment theory and research. Attended by Kim Bartholomew, Jennifer Beer, Nancy Collins, Chris Fraley, Jim

Fuendling, Mario Mikulincer, Phil Shaver, Jodie Steele, and Robert Weiss. August 16, 1998.

Fraley, R. C., Garner, J. P., & Shaver, P. R. (2000). Adult attachment and the defensive regulation of attention and memory: Examining the role of pre-emptive and post-emptive defensive processes. Journal of Personality and Social Psychology, 79, 816-826.

Fraley, R. C., & Shaver, P. R. (1997). Adult attachment and the suppression of unwanted thoughts. Journal of Personality and Social Psychology, 73, 1080-1091.

Fraley, R. C., & Shaver, P. R. (1998). Airport separations: A naturalistic study of adult attachment dynamics in separating couples. Journal of Personality and Social Psychology, 75, 1198-1212.

Fraley, R. C., & Waller, N. G. (1998). Adult attachment patterns: A test of the typological model. J. A. Simpson & W. S. Rholes (Eds.), Attachment Theory and Close Relationships. New York: Guilford.

Frank, E., Kupfer, D. J., Wagner, E. F., McEachran, A. B., & Cornes, C. (1991). Efficacy of interpersonal psychotherapy as a maintenance treatment of recurrent depression - contributing factors. Archives of General Psychiatry, 48, 1053-1059.

Freitas, A. L., & Downey, G. (1998). Resilience: A dynamic perspective. International Journal of Behavioral Development, 22, 263-285.

Garber, J., Cohen, E., Bacon, P., Egeland, B., & Sroufe, L. A. (1985). Depression in preschoolers: Reliability and validity of a behavioral observation measure. Paper presented at the Society for Research in Child Development, Toronto, Ontario, Canada.

Gardner, F. E. M. (1989). Inconsistent parenting: Is there evidence for a link with children's conduct problems? Journal of Abnormal Child Psychology, 17, 223-233.

Gardner, F. E. M., & Sonuga-Barke, E. J. S., & Sayal, K. (1999). Parents anticipating misbehaviour: An observational study of strategies parents use to prevent conflict with behaviour problem children. Journal of Child Psychology and Psychiatry and Allied Disciplines, 40, 1185-1196.

George, C., Kaplan, N., & Main, M. (1996) Adult Attachment Interview. Unpublished protocol, Department of Psychology, University of California, Berkeley.

George, C., & West M. (1999). Developmental vs. social personality models of adult attachment and mental ill health. British Journal of Medical Psychology, 72, 285-303.

George, C., & West M. (2001). The development and preliminary validation of a new measure of adult attachment: the Adult Attachment Projective. Attachment and Human Development, 3, 30-61.

Goldberg, D. (1972). The detection of psychiatric illness by questionnaire. Maudsley Monograph No 21. Oxford: Oxford University Press.

Goldberg, D. P. (1978). Manual of the General health Questionnaire. Windsor: NFER: Nelson.

Goldberg, D. P., & Huxley, P. (1980). Mental illness in the community: The pathway to psychiatric care. London: Tavistock.

Goldberg, D. P., & Williams, P. (1988). A user's guide to the General Health Questionnaire. Windsor: NFER-NELSON.

Goldberg, S., Gotowiec A., & Simmons, R. (1995). Infant-mother attachment and behavior problems in healthy and chronically ill preschoolers. Development and Psychopathology, 7, 267-282.

Goldberg, S., Lojkasek, M., Gartner, G., & Corter, C. (1989). Maternal responsiveness and social development in preterm infants. New Directions for Child Development, 43, 89-104.

Goldsmith, H. H., & Alansky, J. A. (1987). Maternal and infant temperamental predictors of attachment: A meta-analytical review. Journal of Consulting and Clinical Psychology, 55, 805-816.

Goodchild, M. E., & Duncan-Jones, P. (1985). Chronicity and the General Health Questionnaire. British Journal of Psychiatry, 146, 55-61.

Goodman, R., & Stevenson, J. (1989). A twin study of hyperactivity. The etiological role of genes, family relationships and perinatal adversity. Journal of Child Psychology and Psychiatry and Allied Disciplines, 30, 691-709.

Greenberg, M. T., Speltz, M. L., De Klyen, (1993). The role of attachment in the early development of disruptive behavior problems. Development and Psychopathology, 5, 191-213.

Greenberg, M. T., Speltz, M. L., De Klyen, M., & Endriga, M. C. (1991). Attachment security in preschoolers with and without externalizing behavior problems. A replication. Development and Psychopathology, 3, 413-430.

Green-Hennessy, S., & Reis, H. T. (1998). Openness in processing social information among attachment types. Personal Relationships, 5, 449-466.

Gresham, F. M., Lane, K. L., & Lambros, K. M. (2000). Comorbidity of conduct problems and ADHD: Identification of "fledgling psychopaths". Journal of Emotional and Behavioral Disorders, 8, 83-93.

Griest, D. L., Wells, K. C., & Forehand, R. (1979). An examination of predictors of maternal perceptions of maladjustment in clinic-referred children. Journal of Abnormal Psychology, 88, 277-281.

Griffin, D., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. Journal of Personality and Social Psychology, 67, 430-445.

Haaga, D. A. F., Yarmus, M., Hubbard, S., Broday, C., Solomon, A., Kirk, L. & Chamberlain, J. (2002). Mood dependency of self-rated attachment style. Cognitive Therapy and Research, 1, 57-71.

Hafkenscheid, A. (2000). Psychometric measures of individual change: An empirical comparison with the Brief Psychiatric Rating Scale (BPRS). Acta Psychiatrica Scandinavica, 101, 235-242.

Haft, W. L., & Slade, A. (1989). affect attunement and maternal attachment - a pilot-study. Infant Mental Health Journal, 10, 157-172.

Hamalainen, M., & Pulkkinen, L. (1996). Problem behavior as a precursor of male criminality. Development and Psychopathology, 8, 443-455.

Hamilton, C. E. (2000). Continuity and discontinuity of attachment from infancy through adolescence. Child Development, 71, 690-694.

Hammen, C., Burge, D., & Stansbury, K. (1990). Relationship of mother and child variables to child outcomes in a high-risk sample: a causal modelling analysis. Developmental Psychology, 26, 24-30.

Harnish, J.D., Dodge, K.A., Valente, E., Bierman, K. L., Coie, J.D., Dodge, K.A., Greenberg, M. T., Lochman, J. E., & McMahon, R. J. (1995). Mother-child interaction quality as a partial mediator of the roles of maternal depressive symptomatology and socioeconomic-status in the development of child behavior problems. Child Development, 66, 739-753.

Hastings, P. D., & Grusec, J. E. (1998). Parenting goals as organizers of responses to parent-child disagreement. Developmental Psychology, 34, 465-479.

Hastings, P. D., & Rubin, K. H. (1999). Predicting mothers' beliefs about preschool-aged children's social behavior: Evidence for maternal attitudes moderating child effects. Child Development, 70, 722-741.

Hazan, C., & Shaver, P. (1987). Romantic love conceptualised as an attachment process. Journal of Personality and Social Psychology, 52, 511-524.

Hazan, C., Zeifman, D, & Middleton, K. (1994). Adult romantic attachment, affection, and sex. Paper presented at the 7th International Conference on Personal Relationships, Groningen, The Netherlands.

Heard, D. H., & Lake, B. (1986). The attachment dynamic in adult life. British Journal of Psychiatry, 149, 430-438.

Henderson, S., Byrne, D. G., & Duncan-Jones, P. (1981). Neurosis and the social environment. Academic Press, New York.

Herbert, M. (1995). A collaborative model of training for parents of children with disruptive behaviour disorders. British Journal of Clinical Psychology, 34, 325-342.

Hershorn, M., & Rosenbaum, A. (1985). Children of marital violence: A closer look at the unintended victims. American Journal of Orthopsychiatry, 55, 260-266.

Hess, R. D., & Camara, K. A. (1979). Post-divorce family relationships as mediating factors in the consequences of divorce for children. Journal of Social Issues, 37, 79-96.

Hesse, E., & Main, M. (2000). Disorganized infant, child, and adult attachment: Collapse in behavioral and attentional strategies. Journal of the American Psychoanalytic Association, 48, 1097-1127.

Hetherington, E. M. (1988). Family relations six years after divorce. In E. M. Hetherington & D. P. Ross (Eds.), Contemporary readings in Child psychology. New York: McGraw-Hill.

Hinde, R. A. (1989). Continuities and discontinuities: Conceptual issues and methodological considerations. In M. Rutter (Ed.), Studies of psychosocial risk: the power of longitudinal data. Cambridge: Cambridge University Press.

Hinshaw, S. P., Lahey, B. B., & Hart, E. L. (1993). Issues of taxonomy and comorbidity in the development of conduct disorder. Development and Psychopathology, 5, 31-49.

Hoag, M. J., & Burlingame, G. M. (1997). Evaluating the effectiveness of child and adolescent group treatment: A meta-analytic review. Journal of Clinical Child Psychology, 26, 234-246.

Hobbs, N. (1982). The troubled and the troubling child. San Francisco: Jossey-Bass.

Hoffman, M. L. (1970a). Conscience, personality, and socialization techniques. Human Development, 13, 90-126.

Hoffman, M. L. (1970b). Moral Development. In P. H. Mussen (Ed.), Carmichael's manual of child psychology (Vol. 2, pp. 261-360). New York: Wiley.

Hoge, R. D., Meginbir, L., Khan, Y., & Weatherall, D. (1985). A multitrait-multimethod analysis of the Preschool Behavior Questionnaire. Journal of Abnormal Child Psychology, 13, 119-127.

Holden, E. W., & Ritchie, K. L. (1991). Linking extreme marital discord, child rearing, and child behavior problems: Evidence from battered women. Child Development, 62, 311-327.

Holm, S. (1979). A simple sequentially rejective multiple test procedure. Scandinavian Journal of Statistics, 6, 65-70.

Horowitz, L. M., Locke, K. D., Morse, M. B., Waikar, S. V., Dryer, D. C., Tarnow, E., & Ghannam, J .(1991). Self-derogations and the interpersonal theory. Journal of Personality and Social Psychology, 61, 68-79.

Horowitz, L. M., Rosenberg S. E., & Bartholomew, K. (1993). Interpersonal problems, attachment styles, and outcome in brief dynamic psychotherapy. Journal of Consulting and Clinical Psychology, 61, 549-560.

Howes, C., & Hamilton, C. (1992). Children's relationships with child care teachers: Stability and concordance with parental attachments. Child Development, 63, 867-878.

Hudziak, J. J., Rudiger, L. P., Neale, M. C., Heath, A. C., & Todd, R. D. (2000). A twin study of inattentive, aggressive, and anxious/depressed behaviors. Journal of the American Academy of Child and Adolescent Psychiatry, 39, 469-476.

Hutchings, J. M. (1996a). Evaluating a behaviourally based parent training group: Outcomes for parents, children and health visitors. Behavioural and Cognitive Psychotherapy, 24, 150-171.

Hutchings, J. M. (1996b) The personal and parental characteristics of preschool children referred to a child and family mental health service and their relation to treatment outcome. Unpublished D. Clin. Psy. thesis, University of Wales, Bangor.

Hutchings, J., Midence, K., & Nash, S. (1997). Assessing social isolation among mothers of conduct problem children: Preliminary findings from the Community Contacts Questionnaire. Clinical Psychology Forum, 108, 24-27.

Hutchings, J. M., & Nash, S. (1998). Coping with disruptive behaviours - what do you know, what do you do and how do you feel about behavioural interventions? A report on a health visitors' questionnaire. Community Practitioner, 71, 364-367.

Hutchings, J. M., Nash, S., Williams, J. M. G., & Nightingale, D. (1998). Treatment choice for conduct problem children: has parental autobiographical memory got a part to play? British Journal of Clinical Psychology, 37, 303-312.

Hutchings, J., Smith, M., & Gilbert, H. (1999). The Parent-Child Autobiographical Memory Test: Identifying potential deficits in maternal observational style. Unpublished report to the Wales Office of Research and Development.

Hyde, J. S. (1984). How large are gender differences in aggression? A developmental meta-analysis. Developmental Psychology, 20, 722-736.

Irvine, A. B., Biglan, A., Smolkowski, K., & Ary, D. V. (1999). The value of the Parenting Scale for measuring the discipline practices of parents of middle school children. Behaviour Research and Therapy, 37, 127-142.

Jang, K, L., Vernon, P. A., & Livesley, W. J. (2000). Personality disorder traits, family environment, and alcohol misuse: a multivariate behavioural genetic analysis. <u>Addiction, 95,</u> 873-888.

Jensen, P. S., Arnold, L. E., Richters, J. E., Severe, J. B., Vereen, D., Vitiello, B., Schiller, E., Hinshaw, S. P., Elliott, G. R., Conners, C. K., Wells, K. C., March, J., Swanson, J., Wigal, T., Cantwell, D. P., Abikoff, H. B., Hechtman, L., Greenhill, L. L., Newcorn, J. H., Pelham, W. E., Hoza, B., & Kraemer, H. C. (1999). A 14-month randomized clinical trial of treatment strategies for attention-deficit/hyperactivity disorder. <u>Archives of General Psychiatry, 56,</u> 1073-1086.

Johnson, S. M., & Lobitz, G. K. (1974). The personal and marital adjustment of parents as related to observed child deviance and parenting behaviors. <u>Journal of Abnormal Child Psychology, 2,</u> 193-207.

Johnston, M. A. (1999). Influences of adult attachment in exploration. <u>Psychological Reports, 84,</u> 31-34.

Jouriles, E. N., Pfiffner, L. J., & O'Leary, S. G. (1988). Marital conflict, parenting, and toddler conduct problems. <u>Journal of Abnormal Clinical Psychology, 16,</u> 197-206.

Kanji, G. K. (1993). <u>100 Statistical Tests.</u> London, Sage.

Kaplan, P. S., Bachorowski, J., & Zarlengo-Strouse, P. (1999). Child-directed speech produced by mothers with symptoms of depression fails to promote associative learning in 4-month-old infants. <u>Child Development, 70,</u> 560-570.

Kazdin, A. E. (1990). Premature termination from treatment among children referred for antisocial behavior. <u>Journal of Child Psychology and Psychiatry and Allied Disciplines, 31,</u> 415-425.

Kazdin, A. E. (1993). Treatment of conduct disorder: Progress and directions in psychotherapy research. <u>Development and Psychopathology, 5,</u> 277-310.

Kazdin, A. E. (1994). Informant variability in the assessment of childhood depression. In W. R. Reynolds & H. Johnston (Eds.), <u>Handbook of depression in children and adolescents</u> (pp. 249-271), New York Plenum.

Kazdin, A. E. (1995). Child, parent, and family dysfunction as predictors of outcome in cognitive-behavioral treatment of antisocial children. <u>Behaviour Research and Therapy, 33,</u> 271-281.

Kazdin, A. E. (1997a). A model for developing effective treatments: Progression and interplay of theory, research, and practice. <u>Journal of Clinical Child Psychology, 26,</u> 114-129.

Kazdin, A. E. (1997b). Parent management training: evidence, outcomes, and issues. <u>Journal of the American Academy of Child and Adolescent Psychiatry, 36,</u> 1349-1356.

Kazdin, A. E. (Ed). (1997). The therapist as a neglected variable in psychotherapy research [Special Series]. Clinical Psychology: Science and Practice, 4, 40-89.

Kazdin, A. E. (2000). Psychotherapy for children and adults. Directions for research and practice. New York, Oxford University Press.

Kazdin, A. E., & Bass, D. (1989). Power to detect differences between alternative treatments in comparative psychotherapy outcome research. Journal of Consulting and Clinical Psychology, 57, 138-147.

Kazdin, A E., & Crowley, M. J. (1997). Moderators of treatment outcome in cognitively based treatment of antisocial children. Cognitive Therapy and Research, 21, 185-207.

Kazdin, A. E., Holland, L., & Crowley, M. (1997a). Family experience of barriers to treatment and premature termination from child therapy. Journal of Consulting and Clinical Psychology, 65, 453-463.

Kazdin, A. E., Holland, L., Crowley, M., & Breton, S. (1997b). Barriers to Participation in Treatment Scale: evaluation and validation in the context of child outpatient treatment. Journal of Child Psychology and Psychiatry, 38, 1051 - 1062.

Kazdin, A. E., Siegel, T. C., & Bass, D. (1990). Drawing upon clinical practice to inform research on child and adolescent psychotherapy: A survey of practitioners. Professional Psychology: Research and Practice, 21, 189-198.

Kazdin, A. E. & Wassell, G. (1998). Treatment completion and therapeutic change among children referred for outpatient therapy. Professional Psychology -Research and Practice, 29, 332-340.

Kazdin, A. E. & Wassell, G. (1999). Barriers to treatment participation and therapeutic change among children referred for conduct disorder. Journal of Clinical Child Psychology, 28, 160-172.

Kazdin, A. E. & Wassell, G. (2000). Therapeutic changes in children, parents, and families resulting from treatment of children with conduct problems. Journal of the American Academy of Child and Adolescent Psychiatry, 39, 414-420.

Kemp, M. A., & Neimeyer, G. J. (1999). Interpersonal attachment: Experiencing, expressing, and coping with stress . Journal of Counseling Psychology, 46, 388-394.

Kendall, P. C., & Wilcox, L. E. (1979). Self-Control in children: Development of a rating scale. Journal of Consulting and Clinical Psychology, 47, 1020-1029.

Kirkpatrick, L. A., & Davis, K. E. (1994). Attachment style, gender, and relationship stability: a longitudinal analysis. Journal of Personality and Social Psychology, 66, 502-512.

Kirsh, S. J., Crnic, K. A., & Greenberg, M. T. (1995). Relations between parent-child affect and synchrony and cognitive outcome at 5 years of age. Personal Relationships, 2, 187-198.

Kivlighan, D. M., Patton, M. J., & Foote, D. (1998). Moderating effects of client attachment on the counselor experience working alliance relationship. Journal of Counseling Psychology, 45, 274-278.

Klohnen, E. C., & Bera, S. (1998). Behavioral and experiential patterns of avoidantly and securely attached women across adulthood: A 31-year longitudinal perspective. Journal of Personality and Social Psychology, 74, 211-223.

Knapp M. (2000). The economics of mental health problems in childhood and adolescence. Annexe C In National Assembly for Wales (2000). Child and Adolescent Mental Health Services, Everybody's Business. Consultation Strategy Document.

Kobak, R. R., & Hazan, C. (1991). Attachment in marriage: Effects of security and accuracy of working models. Journal of Personality and Social Psychology, 60, 861-869.

Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. Child Development, 59, 135-146.

Kochanska, G. (1990). Maternal beliefs as long-term predictors of mother-child interaction and report. Child Development, 61, 1934-1943.

Kochanska, G., Kuczynski, L., Radke-Yarrow, M., & Welsh, J. D. (1987). Resolutions of control episodes between well and affectively ill mothers and their young children. Journal of Abnormal Child Psychology, 15, 441-456.

Kochanska, G., Kuczynski, L, & Maguire, M. (1989). Impact of diagnosed depression and self-reported mood on mothers' control strategies: A longitudinal study. Journal of Abnormal Child Psychology, 17, 493-511.

La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being Journal of Personality and Social Psychology, 79, 367-384.

Lafioscca, T., & Loyd, B. (1986). Defensiveness and the assessment of parental stress and anxiety. Journal of Clinical Child Psychology, 15, 254-259.

Lahey, B. B., Hartdagen, S. E., Frick, P. J., McBurnett, K., Connor, R., & Hynd, G. W. (1988). Conduct disorder: Parsing the confounded relation to parental divorce and antisocial personality. Journal of Abnormal Psychology, 97, 334-37.

Lahey, B. B., Waldman, I. D., & McBurnett, K. (1999). Annotation: The development of antisocial behavior: An integrative causal model. Journal of Child Psychology and Psychiatry, 40, 669-682.

Lamb, M. E., Thompson, R. A., Gardner, W. P., Charnov, E. L., & Estes, D. (1985). Security of infantile attachment as assessed in the strange situation: Its study and biological interpretation. <u>Annual Progress in Child Psychiatry and Development</u>, 53-114.

Lavigne, J. V., Arend, R., Rosenbaum, D., Binns, H. J., Christoffel, K. K., & Gibbons, R. D. (1998). Psychiatric disorders with onset in the preschool years: I. Stability of diagnoses. <u>Journal of the American Academy of Child and Adolescent Psychiatry, 37</u>, 1246-1254.

Lavigne, J. V., Arend, R., Rosenbaum, D., Binns, H. J., Christoffel, K. K., & Gibbons, R. D. (1998). Psychiatric disorders with onset in the preschool years: II. Stability of diagnoses. <u>Journal of the American Academy of Child and Adolescent Psychiatry, 37</u>, 1255-1261.

Lazaratou, H., Vlassopoulos, M., & Dellatolas, G. (2000). Factors affecting compliance with treatment in an outpatient child psychiatric practice: A retrospective study in a community mental health centre in Athens. <u>Psychotherapy and Psychosomatics, 69</u>, 42-49.

Lazarus, R. S., & Folkman, S. (1984). <u>Stress, appraisal, and coping</u>. Springer: New York.

Leak, G. K., & Parsons, C. J. (2001). The susceptibility of three attachment style measures to socially desirable responding. <u>Social Behavior and Personality, 29</u>, 21-30.

Lee, J. (1973). The colors of love: An exploration of the ways of loving. Don Mills, Ontario, Canada: New Press.

Leiper, R., & Casares, P. (2000). An investigation of the attachment organization of clinical psychologists and its relationship to clinical practice. <u>British Journal of Medical Psychology, 73</u>, 449-464.

Levy, M. B., Davis, K. E. (1988). Lovestyles and attachment styles compared - their relations to each other and to various relationship characteristics. <u>Journal of Social and Personal Relationships</u>, 5, 439-471.

Lewis, C. C. (1981). The effects of parental firm control: A reinterpretation of findings. <u>Psychological Bulletin, 90, 547-563</u>.

Lewis, M. D. (1993). Early socioemotional predictors of cognitive competence at 4 years. <u>Developmental Psychology, 29</u>, 1036-1045.

Lipman, E. L., Bennett, K. J., Racine, Y. A., Mazumdar, R., & Offord, D. R. (1998). What does early antisocial behaviour predict? A follow-up of 4- and 5-year-olds from the Ontario Child Health Study. <u>Canadian Journal of Psychiatry-Revue Canadienne de Psychiatrie</u>, 43, 605-613.

Lobitz, W. C., Johnson, S. M. (1975). Parental manipulation of the behavior of normal and deviant children. <u>Child Development, 46</u>, 719-726.

Locke, H. J., & Wallace, K. M. (1975). Short marital adjustment and prediction tests: Their reliability and validity. Marriage and Family Living, 21, 231-235.

Lopez, F. G., & Brennan, K. A. (2000). Dynamic processes underlying adult attachment organization: Toward an attachment theoretical perspective on the healthy and effective self. Journal of Counseling Psychology, 47, 283-300.

Luborsky, L., Diguer, L., Seligman, D. A., Rosenthal, R. Krause, E. D., Johnson, S., Halperin, G., Bishop, M., Berman, J. S., & Schweizer, E. (1999). The researcher's own therapy allegiances: A "wild card" in comparisons of treatment efficacy. Clinical Psychology: Science and Practice, 6, 95-106.

Luborsky, L., McLellan, A. T., Diguer, L., Woody, G., Seligman, D. A. (1997). The psychotherapist matters: Comparison of outcomes across twenty-two therapists and seven patient samples. Clinical Psychology: Science and Practice, 4, 53-65.

Luk, E. S. L., Staiger, P., Mathai, J., Field, D., & Adler, R. (1998). Comparison of treatments of persistent conduct problems in primary school children: a preliminary evaluation of a modified cognitive-behavioural approach. Australian and New Zealand Journal of Psychiatry, 32, 379-386.

Lynam, D., Moffitt, T., & Stouthamer-Loeber, M. (1993). Explaining the relation between IQ and delinquency: Class, race, test motivation, school failure, or self-control? Journal of Abnormal Psychology, 102, 187-196.

Lyons-Ruth, K. (1996). Attachment relationships among children with aggressive behaviour problems: The role of disorganized early attachment patterns. Journal of Consulting and Clinical Psychology, 64, 64-73.

Lyons-Ruth, K., Alpern, L., & Repacholi, B. (1993). Disorganised infant attachment classification and maternal psychosocial problems as predictors of hostile-aggressive behavior in the preschool classroom. Child Development, 64, 572-585.

Lyons-Ruth, K., Repacholi, B., McCleod, S., & Silva, E. (1991). Disorganised attachment behavior in infancy: short-term stability, maternal and infant correlates. Development and Psychopathology, 3, 397-412.

Lytton, H. (1990). Child and parent effects in boys' conduct disorder: A reinterpretation. Developmental Psychology, 26, 683-697.

Lytton, H., & Romney, D. M. (1991). Parents' differential socialization of boys and girls: A meta-analysis. Psychological Bulletin, 109, 267-296.

Maccoby, E. E., & Martin, J. A. (1983). Socialisation in the context of the family: Parent-child interaction. In E. M. Hetherington (Ed.), Handbook of child psychology: Vol. 4. Socialization, personality, and social development (4th ed., pp. 1- 101). New York: Wiley.

MacKenzie, E. P., Hilgedick, J. M. (1999). The Computer-Assisted Parenting Program (CAPP): The use of a computerized behavioral parent training program as an educational tool. Child and Family Behavior Therapy, 21, 23-43.

MacKinnon, C. E., Lamb, M. E., Belsky, J., & Baum, C. (1990). An affective-cognitive model of mother-child aggression. Development and Psychopathology, 2, 1-13.

MacKinnon-Lewis, C., Lamb, M. E., Arbuckle, B., Baradaran, L. P., & Volling, B. L. (1992). The relationship between biassed maternal and filial attributions and the aggressiveness of their interactions. Development and Psychopathology, 4, 403-415.

MacKinnon-Lewis, C., Lamb, M. E., Hattie, J., & Baradaran, L. P. (2001). A longitudinal examination of the associations between mothers' and sons' attributions and their aggression. Development and Psychopathology, 13, 69- 81.

MacKinnon-Lewis, C., Volling, B. L., Lamb, M. E., Dechman, K., Rabiner, D., & Curtner, M. E. (1994). A cross-contextual analysis of boys' social competence: From family to school. Developmental Psychology, 30, 325-333.

Magai, C., Hunziker, J., Mesias, W., & Culver, L. C. (2000). Adult attachment styles and emotional biases. International Journal of Behavioral Development, 24, 301-309.

Main, M. (1991). Metacognitive knowledge, metacognitive monitoring, and singular (coherent) vs. multiple (incoherent) model of attachment. In C. M. Parkes, J. Stevenson-Hind, & P. Marris (Eds.), Attachment across the life cycle. London: Tavistock/Routledge.

Main, M. (1996). Introduction to the special section on attachment and psychopathology: 2. Overview of the field of attachment. Journal of Consulting and Clinical Psychology, 64, 237-243.

Main, M., & Cassidy, J. (1988). Categories of response to reunion with the parent at age six: Predictable from infant attachment classifications and stable over a one-month period. Developmental Psychology, 24, 415-426.

Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. Monographs of the Society for Research in Child Development, 50, 66-104.

Main, M., & Solomon, J. (1990). Procedure for identifying infants as disorganised/disoriented during the Strange Situation. In M. Greenberg, D. Cicchetti & M Cummings (Eds.), Attachment in the preschool years: Theory, research and intervention. Chicago: University of Chicago Press.

Main, M., & Weston, D. R. (1981). The quality of the toddler's relationship to mother and father: related to conflict behaviour and readiness to establish new relationships. Child Development, 52, 932-940.

Mallinckrodt, B. (2000). Attachment, social competencies, social support, and interpersonal process in psychotherapy. <u>Psychotherapy Research, 10</u>, 239-266.

Mallinckrodt, B., Coble, H. M., & Gantt, D. L. (1995). Working alliance, attachment memories, and social competencies of women in brief psychotherapy. <u>Journal of Counseling Psychology, 42</u>, 79-84.

Mallinckrodt, B., Gantt, D. L., & Coble H. M. (1995). Attachment patterns in the psychotherapy relationship: Development of the Client Attachment to Therapist Scale. <u>Journal of Counseling Psychology, 42</u>, 307-317.

Mallinckrodt, B., King, J. L., & Coble, H. M. (1998). Family dysfunction, alexithymia, and client attachment to therapist. <u>Journal of Counseling Psychology, 45</u>, 497-504.

Martin, J. (1989). Personal and interpersonal components of responsiveness. In M. Bornstein (Ed.), <u>Maternal responsiveness: Characteristics and consequences,</u> (Vol. 43, pp. 5-14). San Francisco: Jossey-Bass.

Mayseless, O., Danieli, R., & Sharabany, R. (1996). Adults' attachment patterns: Coping with separations. <u>Journal of Youth and Adolescence, 25,</u> 667-690.

Mayseless, O., Sharabany, R., & Sagi, A. (1997). Attachment concerns of mothers as manifested in parental, spousal, and friendship relationships. <u>Personal Relationships, 4,</u> 255-269.

McConaughy, S. H. (1993). Advances in empirically based assessment of children's behavioral and emotional problems. <u>School Psychology Review, 22,</u> 285-307.

McCord, J. (1979). Some child-rearing antecedents of criminal behavior in adult man. <u>Journal of Personality and Social Psychology, 37,</u> 1477-1486.

McFarlane, A. C. (1987). The relationship between patterns of family interaction and psychiatric disorder in children. <u>Australian and New Zealand Journal of Psychiatry, 21,</u> 383-390.

McKay, M. M., Gonzales, J., Quintana, E., Kim, L., & Abdul-Adil, J. (1999). Multiple family groups: An alternative for reducing disruptive behavioral difficulties of urban children. <u>Research on Social Work Practice, 9,</u> 593-607.

Meichenbaum, D., & Turk, D. C. (1987). <u>Facilitating treatment adherence: A practitioner's guidebook.</u> Plenum Press; New York, NY.

Meltzer, H., Gatward, R., Goodman, R., Ford, F. (2000) Mental health of children and adolescents in Great Britain. London: The Stationery Office.

Mickelson K. D., Kessler, R. C., & Shaver, P. R. (1997). Adult attachment in a nationally representative sample. <u>Journal of Personality and Social Psychology,</u> 73, 1092-1106.

Mikulincer, M. (1995). Attachment style and the mental representation of the self. Journal of Personality and Social Psychology, 69, 1203-1215.

Mikulincer, M. (1997). Adult attachment style and information processing: Individual differences in curiosity and cognitive closure. Journal of Personality and Social Psychology, 72, 1217-1230.

Mikulincer, M. (1998). Adult attachment style and affect regulation: Strategic variations in self-appraisals. Journal of Personality and Social Psychology, 75, 420-435.

Mikulincer, M. (1998). Attachment working models and the sense of trust: An exploration of interaction goals and affect regulation. Journal of Personality and Social Psychology, 74, 1209-1224.

Mikulincer, M., & Arad, D. (1999). Attachment working models and cognitive openness in close relationships: A test of chronic and temporary accessibility effects Journal of Personality and Social Psychology, 77, 710-725.

Mikulincer, M., Birnbaum, G., Woddis, D., & Nachmias, G. (2000). Stress and accessibility of proximity-related thoughts: Exploring the normative and intraindividual components of attachment theory. Journal of Personality and Social Psychology, 78, 509-523.

Mikulincer, M., & Florian, V. (1999). Maternal-fetal bonding, coping strategies, and mental health during pregnancy: The contribution of attachment style. Journal of Social and Clinical Psychology, 18, 255-276.

Mikulincer, M., Florian, V., & Tolmacz, R. (1990). Attachment styles and fear of personal death - a case-study of affect regulation. Journal of Personality and Social Psychology,. 58, 273-280.

Mikulincer, M., Florian, V., & Weller, A. (1993). Attachment styles, coping strategies, and posttraumatic psychological distress - the impact of the gulf-war in Israel. Journal of Personality and Social Psychology, 64, 817-826.

Mikulincer, M., & Horesh, N. (1999). Adult attachment style and the perception of others: The role of projective mechanisms. Journal of Personality and Social Psychology, 76, 1022-1034.

Mikulincer, M., & Nachshon, O. (1991). Attachment styles and patterns of self-disclosure Journal of Personality and Social Psychology, 61, 321-331.

Mikulincer, M., & Orbach, I, (1995). Attachment styles and repressive defensiveness: the accessibility and architecture of affective memories. Journal of Personality and Social Psychology, 68, 917-925.

Miller, J. B. (1996). Social flexibility and anxious attachment. Personal Relationships, 3, 241-256.

Miller, N. B., Cowan, P. A., Cowan, C. P., Hetherington E. M., & Clingempeel, W. G. (1993). Externalizing in preschoolers and early adolescents: A cross-study replication of a family model. Developmental Psychology, 29, 3-18.

Modern Approaches. 3rd. edition. London, Blackwell Scientific Publications.

Moss, E., Parent, S., Gosselin, C., Rousseau, D., & St. Laurent, D. (1996). Attachment and teacher-reported behavior problems during the preschool and early school-age period. Development and Psychopathology, 8, 511-525.

Moss, E., Rousseau, D., Parent, S., St Laurent, D., & Saintonge, J. (1998). Correlates of attachment at school age: Maternal reported stress, mother-child interaction, and behavior problems. Child Development, 69, 1390-1405.

Moss, E., St. Laurent, D., Rousseau, D., Parent, S., Gosselin, C., & Saintonge, J. (1999). Attachment of school age children and the development of behavioral troubles. Canadian Journal of Behavioral Science - Revue Canadienne des Sciences du Comportement, 31, 107-118.

Munson, J. A., McMahon,, R. j., & Spieker, S. J. (2001). Structure and variability in the developmental trajectory of children's externalizing problems: Impact of infant attachment, maternal depressive symptomatology, and child sex. Development and Psychopathology, 13, 277-296.

National Assembly for Wales (2000). Child and Adolescent Mental Health Services, Everybody's Business. Consultation Strategy Document.

Nelson, K. (1985). Making sense: The acquisition of shared meaning. Orlando: Academic Press.

Newcomb, K. E. (1995). The long-term effectiveness of parent-child interaction therapy with behavior problem children and their families: A two-year follow-up. Unpublished doctoral dissertation, University of Florida, Gainesville. Cited in Foote, Eyberg & Schuhmann, 1998.

Nix, R. L., Pinderhughes, E. E., Dodge, K. A.,, Bates, J. E.., Pettit, G. S., & McFadyen-Ketchum, S. A. (1999). The relation between mothers' hostile attribution tendencies and children's externalizing behavior problems: The mediating role of mothers' harsh discipline practices. Child Development, 70, 896-909.

Office for National Statistics (1999). Mental health of children and adolescents. ONS (99) 409. London, Government Statistical Service.

Ognibene, T. C., & Collins, N. L. (1998). Adult attachment styles, perceived social support and coping strategies. Journal of Social and Personal Relationships, 15, 323-345.

Ojehagen, A., & Berglund, M. (1992). Acceptance, attrition, and outcome in an outpatient treatment program for alcoholics - a comparison between a randomized and a

nonrandomized process-outcome study. European Archives of Psychiatry and Clinical Neuroscience, 242, 82-84.

O'Leary, S. G., Slep, A. M. S., & Reid, M. J. (1999). A longitudinal study of mothers' overreactive discipline and toddlers' externalizing behavior. Journal of Abnormal Child Psychology, 27, 331-341.

Olson, S. L., Bates, J. E., Sandy, J. M., & Lanthier, R. (2000). Early developmental precursors of externalizing behavior in middle childhood and adolescence. Journal of Abnormal Child Psychology, 28, 119-133.

Oltmanns, T. F., Broderick, J. E., & O'Leary, K. D. (1977). Marital adjustment and the efficacy of behavior therapy with children. Journal of Consulting and Clinical Psychology, 45, 724-729.

O'Malley, S. S., Imber, S. D., Sotsky, S. M., Watkins, J. T., Rounsaville, B. J., Foley, S. H., & Elkin, I. (1988). Therapist competence and patient outcome in interpersonal psychotherapy of depression. Journal of Consulting and Clinical Psychology, 56, 496-501.

Orlinsky, D. E., Grawe, K., & Parks, B. K. (1994). Process and outcome in psychotherapy: Noch einmal. In A. E. Bergin & S. L. Garfield, (Eds.), Handbook of psychotherapy and behavior change (4th ed.) (pp. 270-376). New York, NY: John Wiley & Sons.

Parke, R. (1978). Parent-infant interactions: Progress, paradigms and problems. In G. Sackett, (Ed.) Observing behavior: Vol 1. Theory and applications in mental retardation. Baltimore: University Park Press.

Patterson, G. R. (1975). Families: Applications of social learning to family life. Champaign, IL: Research Press.

Patterson, G. R. (1982). Coercive family process. Eugene, OR: Castalia.

Patterson, G. R., & Bank, L. (1989). Some amplifying mechanisms for pathological process in families. In M. Gunnar & E. Thelen (Eds.), Systems and development: The Minnesota Symposium on Child Psychology (Vol. 22, pp. 167-209). Hillsdale, NJ: Erlbaum.

Patterson, G. R., Chamberlain, P., & Reid, J. B. (1982). A comparative evaluation of a parent-training program. Behavior Therapy, 13, 638-650.

Patterson, G. R., Crosby, L., & Vuchinich, S. (1992). Predicting risk for early police arrest. Journal of Quantitative Criminology, 8, 335-355.

Patterson, G. R., Debaryshe, B. D., & Ramsey, E. A. (1989). Developmental perspective on antisocial behavior, American Psychologist, 44, 329-335.

Patterson, G. R., De Garmo, D. S., & Knutson, N. (2000). Hyperactive and antisocial behaviors: Comorbid or two points in the same process? Development and Psychopathology, 12, 91-106.

Patterson, G. R., Dishion, T. J., & Chamberlain, P. (1993). Outcomes and methodological issues relating to treatment of antisocial children. In T. R. Giles (Ed.), Effective psychotherapy: A handbook of comparative research (pp. 43-88). New York: Plenum Press.

Patterson, G. R., & Forgatch, M. (1985). Therapist behavior as a determinant of client non-compliance: A paradox for the behavior modifier. Journal of Consulting and Clinical Psychology, 53, 846-851.

Patterson, G. R., & Forgatch, M. (1995). Predicting future clinical adjustment from treatment outcome and process variables. Special Issue: Methodological issues in psychological assessment research. Psychological Assessment, 7, 275-285.

Patterson, G. R., Reid, J. B., & Dishion, T. J., (1992). Antisocial boys. Eugene, OR: Castalia.

Paulhus, D. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), Measures of personality and social psychological attitudes (pp. 17-59). New York: Academic Press.

Paykel, E. S. (1989). The background: extent and nature of the disorder. In K. Herbst & E. S. Paykel (Eds.), Depression: an integrative approach. London: Heinemann Medical Press.

Perneger, T. V. (1998). What's wrong with Bonferroni adjustments. British Medical Journal, 316, 1236-8.

Pettit, G. S., Dodge, K. A., & Brown, M. (1988). Early family experience, social problem solving patterns, and children's social competence. Child Development, 59, 107-120.

Pianta, R. C., Egeland, B., & Adam, E. K. (1996). Adult attachment classification and psychiatric symptomatology as assessed by the Minnesota Multiphasic Personality Inventory - 2. Journal of Consulting and Clinical Psychology, 64, 273-281.

Pielage, S., Gerlsma, C., & Schaap C. (2000). Insecure attachment as a risk factor for psychopathology: The role of stressful events. Clinical Psychology and Psychotherapy, 7, 296-302.

Pistole, M. C. (1989). Attachment in adult romantic relationships: Style of conflict-resolution and relationship satisfaction. Journal of Social and Personal Relationships, 6, 505-510.

Platt, J. J., & Spivak, G., & Bloom, W. (1975). <u>Manual for the Means-End problem solving Procedure (MEPS): A measure of interpersonal problem solving skill.</u> Philadelphia: Hahnemann Community MH/MR center.

Pocock, S. J. (1983). <u>Clinical trials: A practical approach.</u> Chichester: Wiley.

Porter, B., & O'Leary, K. D. (1980). Types of marital discord and child behavior problems. <u>Journal of Abnormal Child Psychology, 8,</u> 287-295.

Power, C., & Matthews, S. (1997). Origins of health inequalities in a national population sample. <u>Lancet, 350</u>(9091), 1584-1589.

Priel, B., & Besser, A. (2000). Adult attachment styles, early relationships, antenatal attachment, and perceptions of infant temperament: A study of first-time mothers. <u>Personal Relationships, 7,</u> 291-310.

Prosser, J., & McArdle, P. (1996). The changing mental health of children and adolescents: Evidence for a deterioration? <u>Psychological Medicine, 26,</u> 715-725.

Puckering, C., Rogers, J., Mills, M., Cox, D., & Mattson-Graff, M. (1994). Process and evaluation of a group intervention for mothers with parenting difficulties. <u>Child Abuse Review, 3,</u> 299-310.

Querido, J. G., Eyberg, S. M., & Boggs, S. R. (2001). Revisiting the accuracy hypothesis in families of young children with conduct problems. <u>Journal of Clinical Child Psychology, 30,</u> 253-261.

Reid, J. B. (1993). Prevention of conduct disorder before and after school entry: Relating interventions to developmental findings. <u>Development and Psychopathology, 5,</u> 243-262.

Renken, B., Egeland, B., Marvinney, D., Mangelsdorf, S., & Sroufe, L. A. (1989). Early childhood antecedents of aggression and passive-withdrawal in early elementary school. <u>Journal of Personality,</u> 57, 257-281.

Rey, J. M., Walter, G., Plapp, J. M., & Denshire E. (2000). ADHD: Family environment in attention deficit hyperactivity, oppositional defiant and conduct disorders. <u>Australian and New Zealand Journal of Psychiatry, 34,</u> 453-457.

Reynolds, W. M., & Stark, K. D.(1986). Self-control in children - a multimethod examination of treatment outcome measures. <u>Journal of Abnormal Child Psychology, 14,</u> 13-23.

Rholes, W. S., Simpson, J. A., & Blakely, B. S. (1995). Adult attachment styles and mothers relationships with their young children. <u>Personal Relationships, 2,</u> 35-54.

Rholes, W. S., Simpson, J. A., Blakely, B. S., Lanigan, L., & Allen, E. A. (1997). Adult attachment styles, the desire to have children, and working models of parenthood <u>Journal of Personality, 65,</u> 357-385.

Rholes, W. S., Simpson, J. A., & Grich Stevens, J. (1998). Attachment orientations, social support and conflict resolution in close relationships. In J. A. Simpson & W. S. Rholes, Attachment theory and close relationships. Guilford Press, New York.

Richters, J. E., & Cicchetti, D. (1993). Mark Twain meets DSM-III-R: Conduct disorder, development, and the concept of harmful dysfunction. Special issue: Toward a developmental perspective on conduct disorder. Development and Psychopathology, 5, 5-29.

Rickard, K. M., Forehand, R., Wells, K. C., Griest, D. L., & McMahon, R. J. (1981). Factors in the referral of children for behavioral treatment: A comparison of mothers of clinic-referred deviant , clinic referred nondeviant, and non-clinic children. Behaviour Research and Therapy, 19, 201-205.

Robin, A. L., Fischel, J. E., Brown, K. E. (1984). The measurement of self-control in children - validation of the self-control rating-scale. Journal of Pediatric Psychology, 9, 165-175.

Robinson, E. A., Eyberg, S. M. (1981). The Dyadic Parent-child Interaction Coding System: Standardization and validation. Journal of Consulting and Clinical Psychology, 49, 245-250.

Robinson, E. A., Eyberg, S. M., & Ross, A. W. (1980). The standardization of an inventory of child conduct problem behaviors. Journal of Clinical Child Psychology, 9, 22-29.

Rocissano, L., & Yatchmink, Y. (1983). Language skill and interactive patterns in prematurely born toddlers. Child Development, 54, 1229-1241.

Rounsaville, B. J., O'Malley, S., Foley, S., & Weissman, M. M. (1988). Role of manual-guided training in the conduct and efficacy of interpersonal psychotherapy for depression. Journal of Consulting and Clinical Psychology, 56, 681-688.

Routh, C. P., Hill, J. W., Steele, H., Elliott, C. E., & Dewey, M. E. (1995). Maternal attachment status, psychosocial stressors and problem behaviour: Follow-up after parent training courses for conduct disorder. Journal of Child Psychology and Psychiatry and Allied Disciplines, 36, 1179-1198.

Rovine, M. J., & Delaney, M. (1990). Missing data estimation in developmental research. In A. Von Eye (Ed.), Statistical methods in longitudinal research (Vol. 1; pp. 35-79). Stanford: Academic Press.

Rubin, K. H., & Clark, M. L. (1983). Preschool teachers' ratings of behavioral problems: Observational, sociometric, and social-cognitive correlates. Journal of Abnormal Child Psychology, 11, 273-286.

Rubin, K. H., & Mills, R. S. L. (1990). Maternal beliefs about adaptive and maladaptive social behaviors in normal, aggressive, and withdrawn preschoolers. Journal of Abnormal Child Psychology, 18, 419-435.

Rubin, K. H., Hastings, P., Chen, X. Y., Stewart, S., & McNichol, K. (1998). Intrapersonal and maternal correlates of aggression, conflict, and externalizing problems in toddlers. Child Development, 6, 1614-1629.

Rubin, K. H., Moller, L., & Emptage, A. (1987). The Preschool Behavior Questionnaire: A useful index of behaviour problems in elementary school-age children? Canadian Journal of Behavioural Science, 19, 86-100.

Rutter, M. (1967). A children's behaviour questionnaire for completion by teachers: Preliminary findings. Journal of Child Psychology and Psychiatry and Allied Disciplines, 8, 1-11.

Rutter, M. (1995). Clinical implications of attachment concepts: Retrospect and prospect. Journal of Child Psychology and Psychiatry and Allied Disciplines, 36, 549-571.

Rutter, M. L. (1999). Psychosocial adversity and child psychopathology. British Journal of Psychiatry, 174, 480-493.

Rutter, M., & Madge, N. (1976). The city and the child. American Journal of Orthopsychiatry, 51, 610-625.

Rutter, M., & Quinton, D. (1977). Psychiatric disorder: Ecological factors and concepts of causation. In H. McGurk (Ed.), Ecological factors in human development. Amsterdam: North Holland Publishing Corporation.

Rutter, M., & Quinton, D. (1984). Parental psychiatric disorder: Effects on children. Psychological Medicine, 14, 853-880.

Sagi, A., van IJzendoorn, M. H., Scharf, M., Korenkarie, N., Joel S. T., & Mayseless, O. (1994). Stability and discriminant validity of the Adult Attachment Interview: A psychometric study in young Israeli adults. Developmental Psychology, 30, 771-777.

Sanders, M. R. (1999). Triple P-Positive Parenting Program: Towards an empirically validated multilevel parenting and family support strategy for the prevention of behavior and emotional problems in children. Clinical Child and Family Psychology Review, 2, 71-90.

Sanders, M. R., & Dadds, M. R. (1993). Behavioral family intervention. Psychology practitioner guidebooks. Needham Heights, MA, US: Allyn & Bacon.

Sanford, M., Boyle, M. H., Szatmari, P., Offord, D. R., Jamieson, E., &Spinner, M. (1999). Age-of-onset classification of conduct disorder: Reliability and validity in a prospective cohort study. Journal of the American Academy of Child and Adolescent Psychiatry, 38, 992-999.

Sattler, J. M. (1990). <u>Assessment of children</u> (4th ed.) San Diego, CA, US: Jerome M. Sattler.

Schaughency, E. A., & Lahey, B. B. (1985). Mothers' and fathers' perceptions of child deviance: Roles of child behavior, parental depression, and marital satisfaction. <u>Journal of Consulting and Clinical Psychology, 53</u>, 718-723.

Scholey, K. (1997). <u>Analysis of the relationship between the Autobiographical Memory Test and the Parent-Child Autobiographical Memory Test with mothers of preschool children</u>. Unpublished manuscript, School of Psychology, University of Wales, Bangor.

Schweinhart, L. J., & Weikart, D. P. (1993). Success by empowerment - The High Scope Perry Preschool Study through age 27. <u>Young Children, 49</u>, 54-58.

Scott, S. (1998a). Fortnightly review - Aggressive behaviour in childhood. <u>British Medical Journal, 316</u>(7126), 202-206.

Scott, S. (1998b). Intensive interventions to improve parenting. <u>Archives of Disease in Childhood, 79</u>, 90-93.

Scott, S., Knapp, M., Henderson, J., & Maugham, B. (2001). Financial cost of social exclusion: Follow up study of antisocial children into adulthood. <u>British Medical Journal, 323</u>, 191-194.

Scott, S., Spender, Q., Doolan, M., Jacobs, B., & Aspland, H. (2001). Multicentre controlled trial of parenting groups for childhood antisocial behaviour in clinical practice. <u>British Medical Journal, 323</u>, 194-197.

Searle, B., & Meara, N. M. (1999). Affective dimensions of attachment styles: Exploring self-reported attachment style, gender, and emotional experience among college students. <u>Journal of Counseling Psychology, 46</u>, 147-158.

Shapiro, D. A., Firth-Cozens, J., & Stiles, W. B. (1989). The question of therapists' differential effectiveness: A Sheffield Psychotherapy Project addendum. <u>British Journal of Psychiatry, 154</u>, 383-385.

Shaver, P. R. (2000). An updated theory of romantic (pair-bond) attachment. Shaver's talk in Israel, April, 2000. http://psychology.ucdavis.edu/Shaver/israeltalk.htm

Shaver, P. R., Belsky, J., & Brennan, K. A. (2000). The Adult Attachment Interview and self-reports of romantic attachment: Associations across domains and methods. <u>Personal Relationships, 7</u>, 25-43.

Shaver, P. R., & Brennan, K. A. (1992). Attachment styles and the big 5 personality-traits: Their connections with each other and with romantic relationship outcomes. <u>Personality and Social Psychology Bulletin, 18</u>, 536-545.

Shaver, P. R., & Hazan, C. (1993). Adult romantic attachment. In D. Perlman & W. Jones (Eds.), <u>Advances in personal relationships</u> (Vol. 4). London: Jessica Kingsley.

Shaver, P. R., & Hazan, C. (1994). Attachment as an organizational framework for research in close relationships. Psychological Inquiry, 5, 1-22.

Shaw, D. S., Emery, R. E., & Tuer, M. D. (1993). Parental functioning and children's adjustment in families of divorce: A prospective study. Journal of Abnormal Child Psychology, 21, 119-134.

Shaw, D. S., Keenan, K., & Vondra, J. I. (1994). Developmental precursors of externalizing behavior - ages 1 to 3. Developmental Psychology, 30, 355-364.

Shaw, D. S., & Vondra, J. I. (1995). Infant attachment security and maternal predictors of early behaviour problems: A longitudinal study of low-income families. Journal of Abnormal Child Psychology, 23, 335-357.

Shedler, J., Mayman, M., & Manis, M. (1993). The illusion of mental health. American Psychologist, 48, 1117-1131.

Shelton, T. L., Barkley, R. A., Crosswait, C., Moorehouse, M., Fletcher, K., Barrett, S., Jenkins, L., & Metevia, L. (2000). Multimethod psychoeducational intervention for preschool children with disruptive behavior: Two-year post-treatment follow-up. Journal of Abnormal Child Psychology, 28, 253-266.

Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. Journal of Personality and Social Psychology, 59, 971-980.

Simpson, J. A., & Rholes, W. S. (1994). Stress and secure base relationships in adulthood. Advances in Personal Relationships, 5, 181-204.

Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support seeking and support giving within couples in an anxiety-provoking situation: The role of attachment styles. Journal of Personality and Social Psychology, 62, 434-446.

Simpson, J. A., Rholes, W. S., & Phillips, D. (1996). Conflict in close relationships: An attachment perspective. Journal of Personality and Social Psychology, 71, 899-914.

Slade, A., Belsky, J., Aber, J. L., & Phelps, J. L. (1999). Mothers' representations of their relationships with their toddlers: Links to adult attachment and observed mothering. Developmental Psychology, 35, 611-619.

Slutske, W. S., Heath, A. C., Dinwiddie, S. H., Madden, P. A., Bucholz, K. K., Dunne, M. P., Statham, D. J., & Martin, N. G. (1997). Modeling genetic and environmental influences in the etiology of conduct disorder: A study of 2,682 adult twin pairs. Journal of Abnormal Psychology, 106, 266-279.

Slutske, W. S., Lyons, M. J., True., W. R., Eisen, S. A., Goldberg, J., & Tsuang, M. T. (1997). Testing a developmental taxonomy of antisocial behavior. Behavior Genetics, 27, 606-606.

Smith, A. M., & O'Leary, S. G. (1995). Attributions and arousal as predictors of maternal discipline. Cognitive Therapy and Research, 19, 459-471.

Snyder, J. J. (1977). Reinforcement analysis of interaction in problem and nonproblem families. Journal of Abnormal Child Psychology, 86, 528-535.

Solomon, J., & George, C. (1996). Defining the caregiving system: Toward a theory of caregiving. Infant Mental Health Journal, 17, 183-197.

Solomon, J., George, C., & de Jong, A. (1995). Children classified as controlling at age six: Evidence of disorganized representational strategies and aggression at home and at school. Development and Psychopathology, 7, 447-464.

Sonuga-Barke, E. J. S., Thompson, M., Stevenson, J., &Viney, D. (1997). Patterns of behaviour problems among pre-school children. Psychological Medicine, 27, 909-918.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. Journal of Marriage and Family, 38, 15-26.

Speltz, M. L., De Klyen, M., & Greenberg, M. T. (1999). Attachment in boys with early onset conduct problems. Development and Psychopathology, 11, 2069-285.

Speltz, M. L., De Klyen, M., Greenberg, M. T., &. Dryden, (1995). Clinic referral for oppositional defiant disorder - relative significance of attachment and behavioral variables. Journal of Abnormal Child Psychology, 23, 487-507.

Speltz, M. L., Greenberg, M. T., & De Klyen, M. (1990). Attachment in preschoolers with disruptive behavior: A comparison of clinic-referred and non-problem children. Development and Psychopathology, 2, 31-46.

Spender, Q., & Scott, S. (1996), Conduct disorder. Current Opinion in Psychiatry, 9, 273-277.

Sroufe, L. A. (1983). Infant-caregiver attachment and patterns of adaptation in preschool - the roots of maladaptation and competence. Minnesota Symposia on Child Psychology, 16, 41-83.

Sroufe, L. A. (1988). The role of infant-caregiver attachment in development. In J Belsky & T. Nezworski (Eds.), Clinical implications of attachment. Child psychology (pp. 18-38). Hillsdale, NJ, US: Lawrence Erlbaum Associates.

Sroufe, Carlson, Levy & Egeland, B. (1999). Implications of attachment theory for developmental psychology. Development and Psychopathology, 11, 1-13.

Stevenson-Hinde, J. (1994). An ethological perspective. Psychological Inquiry: An international journal of peer commentary and review, 5, 62-65.

Stoff, D. M., Breiling, J., & Maser, J. D. (Eds.) (1997) Handbook of antisocial behavior. New York, NY: John Wiley & Sons, Inc.

Stormshak, E. A., Bierman, K. L., McMahon, R. J., & Lengua, L. J. (2000). Parenting practices and child disruptive behavior problems in early elementary school. Journal of Clinical Child Psychology, 29, 17-29.

Strassberg, Z. (1995). Social information processing in compliance situations by mothers of behavior-problem boys. Child Development, 66, 376-389.

Taylor, E., Chadwick, O., Heptinstall, E., & Danckaerts, M. (1996). Hyperactivity and conduct problems as risk factors for adolescent development. Journal of the American Academy of Child and Adolescent Psychiatry, 35, 1213-1226.

Taylor, T. K., Schmidt, F., Pepler, D., & Hodgins, C. (1998). A comparison of eclectic treatment with Webster-Stratton's Parents and Children Series in a children's mental health center: A randomized controlled trial. Behavior Therapy, 29, 221-240.

Teti, D. M., & Ablard, K. E. (1989). Security of attachment and infant-sibling relationships - a laboratory study. Child Development, 60, 1519-1528.

Thalanany, M. (1999). Needs assessment of child and adolescent mental health services in North West Wales. North Wales Health Authority.

Thompson, M. J. J., Stevenson, J., Sonuga-Barke, E., Nott, P., Bhatti, Z., Price, A., & Hudswell, M. (1996b). Prevalence and ecological factors. British Journal of Psychiatry, 168, 16-20.

Thompson, R. W., Ruma, P. R., Schuchmann, L. F., & Burke, R. V. (1996). A cost-effectiveness evaluation of parent training. Journal of Child and Family Studies, 5, 415-429.

Tronick, E. Z. (1989). Emotions and emotional communication in infants. American Psychologist, 44, 112-119.

Tuteur, J. M., Ewigman, B. E., Peterson, L., & Hosokawa, M. C. (1995). The Maternal Observation Matrix and the Mother-Child Interaction Scale: Brief observational screening instruments for physically abusive mothers. Journal of Clinical Child Psychology, 24, 55-62.

Tyrrell, C. L., Dozier, M., Teague, G. B., & Fallot, R. D. (1999). Effective treatment relationships for persons with serious psychiatric disorders: The importance of attachment states of mind. Journal of Consulting and Clinical Psychology, 67, 725-733.

van IJzendoorn, M. H. (1992). Intergenerational transmission of parenting: A review of studies in nonclinical populations. Developmental Review, 12, 76-99.

van IJzendoorn, M. H. (1995). Adult attachment representations, parental responsiveness and infant attachment: A meta-analysis on the predictive validity of the Adult Attachment Interview. Psychological Bulletin, 117, 387-403.

van IJzendoorn, M. H. (1997). Attachment, emergent morality, and aggression: Toward a developmental socioemotional model of antisocial behaviour. International Journal of Behavioral Development, 21, 703-727.

van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (1996). Attachment representations in mothers, fathers, adolescents, and clinical groups: A meta-analytic search for normative data. Journal of Consulting and Clinical Psychology, 24, 8-21.

Vieweg, B. W., & Hedlund, J. L. (1983). The General Health Questionnaire (GHQ): A comprehensive review. Journal of Operational Psychiatry, 14, 74-81.

Vuchinich, S., Bank, L., & Patterson, G. R. (1992). Parenting, peers, and the stability of antisocial behavior in preadolescent boys. Developmental Psychology, 28, 510-521.

Wahler, R. G. (1980). The insular mother: Her problems in parent-child treatment. Journal of Applied Behavior Analysis, 13, 207-219.

Wahler, R. G. (1990). Who is driving the interaction? A commentary on "Child and parent effects in boys' conduct disorder". Developmental Psychology, 26, 702-704.

Wahler, R. G. (1995, September). Chaos and order in the parenting of aggressive children: Personal narratives as guidelines. Paper presented at the New York Academy of Sciences Conference Understanding aggressive behavior in children. New York.

Wahler, R. G., & Afton, A. D. (1980). Attentional processes in insular and noninsular mothers. Child Behavior Therapy, 2, 25-41.

Wahler, R. G., Cartor, P. G., Fleischman, J., & Lambert, W. (1993). The impact of synthesis teaching and parent training with mothers of conduct-disordered children Journal of Abnormal Child Psychology, 21, 425-440.

Wahler, R. G., & Dumas, J. E. (1984). Changing the observational coding styles of insular and non-insular mothers: A step towards maintenance of parent training effects. In R. F. Dangel & R. A. Polster (Eds.), Parent training: Foundations of research and practice (pp. 379-416). New York: Guilford Press.

Wahler, R. G., & Dumas, J. E. (1989). Attentional problems in dysfunctional mother-child interactions: An interbehavioral model. Psychological Bulletin, 105, 116-130.

Wahler, R. G., & Fox, J. J. (1980). Solitary toy play and time out: a family treatment package for children with aggressive and oppositional behavior. Journal of Applied Behavior Analysis, 13, 23-39.

Wahler, R. G., & Hann, D. M. (1984). The communication patterns of troubled mothers: In search of a keystone in the generalization of parenting skills. Education and Treatment of Children, 7, 335-350.

Wahler, R. G., House, A. E., & Stamburgh, E. E. (1976). Ecological assessment of child problem behavior: A clinical package for home, school and institutional settings. New York: Pergamon Press.

Wahler, R. G., & Meginnis, K. L. (1997). Strengthening child compliance through positive parenting practices: What works? Journal of Clinical Child Psychology, 26, 433-440.

Wahler, R. G., & Sansbury, L. E. (1990). The monitoring skills of troubled mothers: their problems in defining child deviance. Journal of Abnormal Child Psychology, 18, 577-589.

Wakschlag, L. S., & Hans, S. L. (1999). Relation of maternal responsiveness during infancy to the development of behavior problems in high-risk youths. Developmental Psychology, 35, 569-579.

Wallace, S. A., Crown, J. M., Berger, M., & Cox, A. D. (1997). Child and adolescent mental health. In A. Stevens & J. Raftery (Eds.). Health care needs assessment, 2nd series. Oxford, Radcliffe Medical Press.

Wallerstein, J. S., & Kelly, J. B. (1980). Surviving the breakup. New York: Basic Books.

Wartner, U. G., Grossmann, K., Fremmer-Bombik, E., & Suess, G. (1994). Attachment patterns at age six in South Germany: Predictability from infancy and implications for preschool behavior. Child Development, 65, 1014-1027.

Waters, E. (1978). The reliability and stability of individual differences in infant-mother attachment. Child Development, 49, 483-494.

Waters, E., Crowell, J., Treboux, D., Merrick, S., & Albersheim, L. (1995). Attachment security from infancy to early childhood: A 20-year longitudinal study. Poster, Biennial Meeting of the Society for Research in Child Development, Indianapolis, Indiana.

Waters, E. Kondo-Ikemura, K., Posada, G., & Richters, J. (1991). Learning to love: Mechanisms and milestones. In M. Gunnar & L. A. Sroufe (Eds.), Self processes and development. Hillsdale, NJ: Lawrence Erlbaum.

Waters E., Merrick, S., Treboux, D., Crowell, J., & Albersheim, L. (2000). Attachment security in infancy and early adulthood: A twenty-year longitudinal study. Child Development, 71, 684-689.

Waters, E., Posada, G., Crowell, J., & Keng-Ling, L. (1993). Is attachment theory ready to contribute to our understanding of disruptive behavior problems? Development and Psychopathology, 5, 215-224.

Webster-Stratton, C. (1984). Randomized trial of 2 parent-training programs for families with conduct-disordered children. <u>Journal of Consulting and Clinical Psychology,</u> <u>52,</u> 666-678.

Webster-Stratton, C. (1987). <u>Parents and children: A 10-program videotape training</u> <u>series with manuals.</u> Eugene, OR: Castalia Press.

Webster-Stratton, C. (1989). Systematic comparison of consumer satisfaction of three cost-effective parent training programmes for conduct problem children. <u>Behavior Therapy,</u> <u>220,</u> 103-115.

Webster-Stratton, C. (1989). The relationship of marital support, conflict, and divorce to parent perceptions, behaviors, and childhood conduct problems. <u>Journal of Marriage and the</u> <u>Family,</u> <u>51,</u> 417-430.

Webster-Stratton, C. (1990). Long term follow-up of families with young conduct problem children: From pre-school to grade school. <u>Journal of Clinical Child Psychology,</u> <u>19,</u> 144-149.

Webster-Stratton, C. (1991). Annotation: Strategies for helping families with conduct disordered children. <u>Journal of Child Psychology and Psychiatry,</u> <u>32,</u> 1047-1062.

Webster-Stratton, C. (1996). Early-onset conduct problems: Does gender make a difference? <u>Journal of Consulting and Clinical Psychology,</u> <u>64,</u> 540-551.

Webster-Stratton, C. (1998). Preventing conduct problems in Head Start children: Strengthening parenting competencies. <u>Journal of Consulting and Clinical Psychology,</u> <u>66,</u>715-730.

Webster-Stratton, C., & Hammond, M. (1988). Maternal depression and its relationship to life stress, perceptions of child behavior problems, parenting behaviors, and child conduct problems. <u>Journal of Abnormal Child Psychology,</u> <u>16,</u> 299-315.

Webster-Stratton, C., & Hammond, M. (1990). Predictors of treatment outcome in parent training for families with conduct problem children. <u>Behavior Therapy,</u> <u>21,</u> 319-337.

Webster-Stratton, C., & Hammond, M. (1997). Treating children with early-onset conduct problems: A comparison of child and parent training interventions. <u>Journal of</u> <u>Consulting and Clinical Psychology,</u> <u>65,</u> 93-109.

Webster-Stratton, C., Hammond, M. (1999). Marital conflict management skills, parenting style, and early-onset conduct problems: Processes and pathways. <u>Journal of</u> <u>Child Psychology and Psychiatry and Allied Disciplines,</u> <u>40,</u> 917-927.

Webster-Stratton, C., & Herbert, M. (1994). <u>Troubled families--problem children:</u> <u>Working with parents: A collaborative process.</u> New York, NY, John Wiley & Sons.

Webster-Stratton, C., Hollinsworth, T., & Kolpakoff, M. (1989). The long-term effectiveness and clinical significance of three cost-effective training programs for families with conduct-problem children. <u>Journal of Consulting Clinical Psychology, 57</u>, 550-3.

Webster-Stratton, C., & Spitzer, A. (1991). Development, reliability, and validity of the daily telephone discipline interview. <u>Behavioral Assessment, 13</u>, 221-239.

Webster-Stratton, C., & Spitzer, A. (1996). Parenting a young child with conduct problems - New insights using qualitative methods. <u>Advances in Clinical Child Psychology, 18</u>, 1-62.

Weckowicz, T. E. (1967). Clinical trial of g-33040 in a group of depressed out-patients. <u>Canadian Psychiatric Association Journal, 12</u>, 603-606.

Weich, S., & Lewis, G. (1998). Poverty, unemployment and common mental disorders: Population based cohort study. <u>British Medical Journal, 317</u>, 115-119.

Weinfield, N. S., Sroufe, L. A., & Egeland, B. (2000). Attachment from infancy to early adulthood in a high-risk sample: Continuity, discontinuity, and their correlates. <u>Child Development, 71</u>, 695-702.

Weintraub, S., Winters, K. C., & Neale, J. M. (1986). Competence and vulnerability in children with an affectively disordered parent. In M. Rutter, C. E. Izard, & P. B. Read (Eds.), <u>Depression in young people: Development and clinical perspectives</u> (pp. 205-220). New York: Guilford Press.

Weiss, R. (1974). The provisions of social relationships. In S. Rubin (Ed.), <u>Doing unto others</u>. Englewood Cliffs, NJ: Prentice-Hall.

Weissman, M. M., & Klerman, G. L. (1977). Sex differences and the epidemiology of depression. <u>Archives of General Psychiatry, 34</u>, 98-111.

Weissman, M. M., & Paykel, E. S. (1974). <u>The depressed woman: A study of social relations</u>. Chicago: University of Chicago Press.

Weissman, M. M., Prusoff, B. A., Gammon, G. D., Merikangas, K. R., Leckman, J. F., & Kidd, K. K. (1984). Psychopathology in the children (ages 6-18) of depressed and normal parents. <u>Journal of the American Academy of Child Psychiatry, 23</u>, 78-84.

Weisz, J. R., Weiss, B., Han, S. S., Granger, D. A., & Morton, T. (1995). Effects of psychotherapy with children and adolescents revisited: A meta-analysis of treatment outcome studies. <u>Psychological Bulletin, 117</u>, 450-468.

Welsh Office (1998). A statistical focus on Wales: Women'. Government Statistical Service.

Welsh-Alliss. G., & Ye, W. (1988). Psychopathology in children of parents with recurrent depression. <u>Journal of Abnormal Clinical Psychology, 16</u>, 17-28.

Weschler, D. (1990). Weschler Preschool and Primary Scale of Intelligence - Revised UK Edition (WPPSI-R^{UK}). London, The Psychological Corporation, Harcourt Brace.

Weschler, D. (1991). Weschler Intelligence Scale for Children - Third Edition, UK (WISC-III^{UK}). London, The Psychological Corporation, Harcourt Brace.

Whipple, E., Denburg, N. L., & Davies, W. H. (1993). MSU family project second revision of the Belsky parent-child interaction coding system. Unpublished manuscript, Michigan State University, E. Lansing.

Whisman, M. A., & Allan, L. E. (1996). Attachment and Social Cognition Theories of Romantic Relationships: Convergent or Complementary Perspectives? Journal of Social and Personal Relationships, 13, 263-278.

White, C., & Barrowclough, C. (1998). Depressed and non-depressed mothers with problematic preschoolers: Attributions for child behaviours. British Journal of Clinical Psychology, 37, 385-398.

Wickramaratne, P. J., &Weissman, M. M. (1998). Onset of psychopathology in offspring by developmental phase and parental depression. Journal of the American Academy of Child and Adolescent Psychiatry, 37, 933-942.

Williams, J. M. G. (1992). The psychological treatment of depression: A guide to the theory and practice of cognitive behaviour therapy. 2nd Ed. London: Routledge.

Williams, J. M. G., & Broadbent, K. (1986). Autobiographical memory in attempted suicide. Journal of Abnormal Psychology, 95, 144-149.

Wolkind, S. N., & DeSalis, W. (1982). Infant temperament, maternal mental state, and child behavior problems. In R. Porter & G. M. Collins (Eds.), Temperament differences in infants and young children (pp. 221-239). London: Pittman.

World Health Organisation (1992). International statistical classification of diseases and related health problems: Tenth revision. (ICD 10). Geneva: Author.

Zuroff, D. C., & Fitzpatrick D. K. (1995). Depressive personality styles - implications for adult attachment. Personality and Individual Differences, 18, 253-265.

APPENDICES

Appendix A The Diagnosis of Childhood Conduct Disorder, ICD-10 and DSM IV

ICD-10 10th Revision Vol. 1 World Health Organisation 1992

F91 Conduct disorders

Disorders characterised by a repetitive and persistent pattern of dissocial, aggressive, or defiant conduct. Such behaviour should amount to major violations of age-appropriate social expectations; it should therefore be more severe than ordinary childish mischief or adolescent rebelliousness and should imply an enduring pattern of behaviour (six months or longer). Features of conduct disorder can also be symptomatic of other psychiatric conditions, in which case the underlying diagnosis should be preferred.

Examples of the behaviours on which the diagnosis is based include excessive levels of fighting or bullying, cruelty to other people or animals, severe destructiveness to property, fire-setting, stealing, repeated lying, truancy from school and running away from home, unusually frequent and severe temper tantrums, and disobedience. Any one of these behaviours, if marked, is sufficient for the diagnosis, but isolated dissocial acts are not.

Excludes:

mood (affective) disorders (F30-F39)

pervasive developmental disorders (F84.-)

schizophrenia (F20.-)

when associated with:

* emotional disorders (F92.-)
* hyperkinetic disorders (F90.1)

F91.0 Conduct disorder confined to the family context

Conduct disorder involving dissocial or aggressive behaviour (and not merely oppositional, defiant, disruptive behaviour), in which the abnormal behaviour is entirely, or almost entirely, confined to the home and to interactions with members of the nuclear family or immediate household. The disorder requires that the overall criteria for F91.- be met; even severely disturbed parent-child relationships are not of themselves sufficient for diagnosis.

F91.1 Unsocialized conduct disorder

Disorder characterised by the combination of persistent dissocial or aggressive behaviour (meeting the overall criteria for F19.- and not merely comprising oppositional, defiant, disruptive behaviour) with significant pervasive abnormalities in the individual's relationships with other children.

Conduct disorder, solitary aggressive type
Unsocialized aggressive disorder

F91.2 Socialized conduct disorder

Disorder involving persistent dissocial or aggressive behaviour (meeting the overall criteria for F91.- and not merely comprising oppositional, defiant, disruptive behavior) occurring in individuals who are generally well integrated into their peer group.

Conduct disorder, group type
Group delinquency
Offences in the context of gang membership
Stealing in company with others
Truancy from school

F91.3 Oppositional defiant disorder

Conduct disorder, usually occurring in younger children, primarily characterised by markedly defiant, disobedient, disruptive behaviour that does not include delinquent acts or the more extreme forms of aggressive or dissocial behaviour. The disorder requires that the overall criteria for F91.- be met; even severely mischievous or naughty behaviour is not in itself sufficient for diagnosis. Caution should be employed before using this category, especially with older children, because clinically significant conduct disorder will usually be accompanied by dissocial or aggressive behaviour that goes beyond mere defiance, disobedience, or disruptiveness.

F91.8 Other conduct disorders
F91.9 Conduct disorder, unspecified

Childhood:
- behavioural disorder NOS
- conduct disorder NOS

DSM IV

DISRUPTIVE BEHAVIOR DISORDERS

312.8 Conduct Disorder

Diagnostic Features

The essential feature of Conduct Disorder is a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated (Criterion A). These behaviors fall into four main groupings: aggressive conduct that causes or threatens physical harm to other people or animals (Criteria A1-17), nonaggressive conduct that causes property loss or damage (Criteria A8-A9), deceitfulness or theft (Criteria A10-12), and serious violations of rules (Criteria A13-A15). Three (or more) characteristic behaviors must have been present during the past 12 months, with at least one behavior present in the past 6 months. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning (Criterion B). Conduct Disorder may be diagnosed in individuals who are older than age 18 years, but only if the criteria for Antisocial Personality Disorder are not met (Criterion C). The behavior pattern is usually present in a variety of settings such as home, school, or the community. Because individuals with Conduct Disorder are likely to minimise their conduct problems, the clinician often must rely on additional informants. However, the informant's knowledge of the child's conduct problems may be limited by inadequate supervision or by the child's not having revealed them.

Children or adolescents with this disorder often initiate aggressive behavior and react aggressively to others. They may display bullying, threatening or intimidating behavior (A1); initiate frequent physical fights (Criterion A2); use a weapon that can cause serious physical harm (e.g. a bat, brick, broken bottle, knife or gun) (Criterion A3); be physically cruel to people (Criterion A4) or animals (Criterion A5); steal while confronting a victim (e.g. mugging, purse snatching, extortion, or armed robbery) (Criterion 6); or force someone into sexual activity (Criterion A7). Physical violence may take the form of rape, assault, or in rare cases, homicide.

Deliberate destruction of others' property is a characteristic feature of this disorder and may include deliberate fire setting with the intention of causing serious damage

(Criterion A8) or deliberately destroying other people's property in other ways (e.g. smashing car windows, school vandalism) (Criterion 9).

Deceitfulness or theft is common and may include breaking into someone else's house, building, or car (Criterion A10); frequently lying or breaking promises to obtain goods or favors or to avoid debts or obligations (e.g. "conning" other people) (Criterion A11); or stealing items of nontrivial value without confronting the victim (e.g. shoplifting, forgery) (Criterion A12).

Characteristically, there are also serious violations of rules (e.g., school, parental) by individuals with this disorder. Children with this disorder often have a pattern beginning before age 13 years, of staying out late at night despite parental prohibitions (Criterion 13). There may be a pattern of running away from home overnight (Criterion 14). To be considered a symptom of Conduct Disorder, the running away must have occurred at least twice (or only once if the individual did not return for a lengthy period). Runaway episodes that occur as a direct consequence of physical or sexual abuse do not typically qualify for this criterion. Children with this disorder may often truant from school, beginning prior to age 13 years (Criterion A15). In older individuals, this behavior is manifested by often being absent from work without good reason.

Subtypes

Two subtypes of Conduct Disorder are provided based on the age at onset of the disorder (i.e. Childhood-Onset Type and Adolescent-Onset Type). The subtypes differ in regard to the characteristic nature of the presenting conduct problems, developmental course and prognosis, and gender ratio. Both subtypes can occur in a mild, moderate, or severe form. In assessing the age at onset, information should preferably be obtained from the youth and from caregiver(s). Because many behaviors may be concealed, caregivers may underreport symptoms and overestimate the age at onset.

> **Childhood-Onset Type.** This subtype is defined by the onset of at least one criterion characteristic of Conduct Disorder prior to age 10 years. Individuals with Childhood-Onset Type are usually male, frequently display physical aggression toward others, have disturbed peer relationships, may have had Oppositional Defiant Disorder during early childhood, and usually have symptoms that meet full criteria for Conduct Disorder prior to puberty. These

individuals are more likely to have persistent Conduct Disorder and to develop adult Antisocial Personality disorder than are those with Adolescent-Onset Type.

Adolescent-Onset Type. This subtype is defined by the absence of any criteria characteristic of Conduct Disorder prior to age 10 years. Compared with those with the Childhood-Onset Type, these individuals are less likely to display aggressive behaviors and tend to have more normative peer relationships (although they often display conduct problems in the company of others). These individuals are less likely to have persistent Conduct Disorder or to develop adult Antisocial Personality Disorder. The ratio of males to females with Conduct Disorder is lower for the Adolescent-Onset Type than for the Childhood-Onset Type.

Prevalence

The prevalence of Conduct Disorder appears to have increased over the last decades and may be higher in urban than in rural settings. Rates vary widely depending on the nature of the population sampled and methods of ascertainment: for males under age 18 years, rates range from 6% to 16%; for females, rates range from 2% to 9%. Conduct Disorder is one of the most frequently diagnosed conditions in outpatient and inpatient mental health facilities for children.

Course

The onset of Conduct Disorder may occur as early as age 5-6 years but is usually in late childhood or early adolescence. Onset is rare after age 16 years. The course of Conduct Disorder is variable. In a majority of individuals, the disorder remits by adulthood. However, a substantial proportion continue to show behaviors in adulthood that meet criteria for Antisocial Personality Disorder. Many individuals with Conduct Disorder, particularly those with Adolescent-Onset Type and those with few and milder symptoms achieve adequate social and occupational adjustment as adults. Early onset predicts a worse prognosis and an increased risk in adult life for Antisocial Personality Disorder and Substance-Related Disorders. Individuals with Conduct Disorder are at risk for later Mood or Anxiety Disorders, Somatoform Disorders, and Substance-Related Disorders.

Diagnostic criteria for 312.8 Conduct Disorder

A.   A repetitive and persistent pattern of behavior in which the basic rights
        of others or major age-appropriate societal norms or rules are violated, as
        manifested by the presence of three (or more) of the following criteria in the past
        12 months, with at least one criterion present in the past 6 months.

        Aggression to people and animals
(1)   often bullies, threatens or intimidates others
(2)   often initiates physical fights
(3)   has used a weapon that can cause serious physical harm to others (e.g. a bat,
        brick, broken bottle, knife, gun)
(4)   has been physically cruel to people
(5)   has been physically cruel to animals
(6)   has stolen while confronting a victim (e.g. mugging, purse snatching, extortion,
        armed robbery)
(7)   has forced someone into sexual activity

Destruction of property
(8)   has deliberately engaged in fire setting with the intention of causing serious
        damage
(9)   has deliberately destroyed others' property (other than by fire setting)

Deceitfulness or theft
(10)   has broken into someone else's house, building, or car
(11)   often lies to obtain goods or favours or to avoid obligations (i.e. 'cons' others)
(12)   has stolen items of nontrivial value without confronting a victim
        (e.g. shoplifting, but without breaking and entering; forgery)

Serious violations of rules
(13)   often stays out at night despite parental prohibitions, beginning before age 13
        years
(14)   has run away from home overnight at least twice while living in parental or
        parental surrogate home (or once without returning for a lengthy period)
(15)   is often truant from school, beginning before age 13 years

B.	The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

C.	If the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.

Specify type based on age at onset:
Childhood-Onset Type: onset of at least one criterion characteristic of Conduct Disorder prior to age 10 years

Adolescent-Onset Type: absence of any criteria characteristic of Conduct Disorder prior to age 10 years

Specify severity:
Mild: few if any conduct problems in excess of those required to make the diagnosis **and** conduct problems cause only minor harm to others
Moderate: number of conduct problems and effect on others, intermediate between 'mild' and 'severe'
Severe: many conduct problems in excess of those required to make the diagnosis **or** conduct problems causing considerable harm to others

313.81 Oppositional Defiant Disorder

Diagnostic Features

The essential feature of Oppositional Defiant Disorder is a recurrent pattern of negativistic, defiant, disobedient, and hostile behavior toward authority figures that persists for at least 6 months (Criterion A) and is characterised by the frequent occurrence of at least four of the following behaviors: losing temper (Criterion A1), arguing with adults (Criterion A2), actively defying or refusing to comply with the requests or rules of adults (Criterion A3), deliberately doing things that will annoy other people (Criterion A4), blaming others for his or her own mistakes or misbehavior (Criterion A5), being touchy or easily annoyed by others (Criterion A6), being angry and resentful (Criterion A7), or being spiteful or vindictive (Criterion A8). To qualify for Oppositional Defiant Disorder, the behaviors must occur more frequently than is typically observed in individuals of comparable age and developmental level and must lead to significant impairment in social, academic or occupational functioning (Criterion

B).   The diagnosis is not made if the disturbance in behavior occurs exclusively during the course of a Psychotic or Mood Disorder (Criterion C) or if criteria are met for Conduct Disorder or Antisocial Personality Disorder (in an individual over age 18 years).

Negativistic and defiant behaviors are expressed by persistent stubbornness, resistance to directions, and unwillingness to compromise, give in, or negotiate with adults or peers. Defiance may also include deliberate or persistent testing of limits, usually by ignoring orders, arguing and failing to accept blame for misdeeds. Hostility can be directed at adults or peers and is shown by deliberately annoying others or by verbal aggression (usually without the more serious physical aggression seen in Conduct Disorder). Manifestations of the disorder are almost invariably present in the home setting, but may not be evident at school or in the community.   Symptoms of the disorder are typically more evident in interactions with adults or peers whom the individual knows well, and thus may not be apparent during clinical examination. Usually individuals with the disorder do not regard themselves as oppositional or defiant, but justify their behavior as a response to unreasonable demands or circumstances.

Prevalence

Rates of Oppositional Defiant Disorder from 2% to 16% have been reported, depending on the nature of the population sample and methods of ascertainment.

Course

Oppositional Defiant Disorder usually becomes evident before age 8 years and usually not later than early adolescence. The oppositional symptoms often emerge in the home setting but over time may appear in other settings as well. Onset is typically gradual, usually occurring over the course of months or years. In a significant proportion of cases, Oppositional Defiant Disorder is a developmental antecedent to Conduct Disorder.

Diagnostic criteria for 313.81 Oppositional Defiant Disorder

A.   A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months during which four (or more) of the following are present:

(1)   often loses temper
(2)   often argues with adults
(3)   often actively defies or refuses to comply with adults' requests or rules
(4)   often deliberately annoys people
(5)   often blames others for his or her mistakes or behavior
(6)   is often touchy or easily annoyed by others
(7)   is often angry and resentful
(8)   is often spiteful or vindictive

Note: Consider a criterion met only if the behavior occurs more frequently than is typically observed in individuals of comparable age and developmental   level.

B.   The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

C.   The behaviors do not occur exclusively during the course of a Psychotic or Mood Disorder.

D.   Criteria are not met for Conduct Disorder, and, if the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.

312.9   Disruptive Behavior Disorder Not Otherwise Specified

This category is for disorders characterised by conduct or oppositional defiant behaviors that do not meet the criteria for Conduct Disorder or Oppositional Defiant Disorder. For example, include clinical presentations that do not meet full criteria either for Oppositional Defiant Disorder or Conduct Disorder, but in which there is clinically significant impairment.

Appendix B Classification of Major and Minor Depression

Clinical depression is a syndrome of symptoms including emotional, cognitive, behavioural and bodily changes. Williams (1992) summarises the classification of major and minor depression based on DSM-IV criteria, as follows. A clinical diagnosis of major depression requires that low mood is present for at least two weeks; that the person sought or was referred for help and that he or she has no symptoms suggestive of schizophrenia. Five of the following symptoms are also present :

Poor appetite or weight loss or increased appetite or weight gain;

Difficulty in sleeping or sleeping too much;

Loss of energy;

Psychomotor agitation or retardation;

Loss of interest in usual social contact or sex;

Feelings of self-reproach or excessive guilt;

Reported inability to concentrate or make decisions;

Recurrent thoughts of death or suicide.

Approximately five percent of people in our culture meet these criteria at any one time.

Minor depressive disorder is diagnosed by the presence of the following symptoms:

Crying;

Pessimistic thought;

Brooding about past unpleasantness;

Preoccupation with feelings of inadequacy;

Feeling resentful, irritable, angry;

Needing reassurance or help from someone;

Feeling sorry for him or herself;

Psychosomatic complaints.

Minor depression can be diagnosed if the depression has persisted for two weeks and if two or more of the symptoms listed for major or minor depression are present.

Appendix C Wales and North West Wales: Indicators of disadvantage in children (from Thalanany, 1999)

	Wales	N W Wales
No. of children on the following records	Number (and rate/1000)	
Child Protection Register	2029 (3.2)	252 (5.0)
Free school meals	75753 (118.1)	7789 (155.1)
Educational statements	15909 (24.8)	1989 (39.6)
School exclusions	473 (0.7)	78 (1.6)
Households with dependent children		
No. of households	348791	27074
Households/1000 with > 1.5 persons per room	6.5	7.0
Households/1000 lacking or sharing amenities	5.0	6.4
Households/1000 with no central heating	113.9	314.7
Households/1000, not self-contained	3.0	4.3

Sources: Welsh Office and Gwynedd County Council, 1995: Social Services and Education Department Records; Households data: 1991 Census

Appendix D Estimated population figures for North Wales, 1995 -1998

Estimated resident population mid-1995 mid-98 based on the 1991 census
(by selected age bands and sex) on boundaries that came into existence on 1.4.98

Source: ONS, Population Estimates Unit.

1995		Males 2-10	Females 2-10
North West Wales	Isle of Anglesey UA	4065	3853
	Gwynedd UA	6854	6310
Conwy and	Conwy UA	5947	5680
Denbighshire	Denbighshire UA	5367	5020
North East Wales	Flintshire UA	8874	8351
	Wrexham UA	7346	7236

1996		Males 2-10	Females 2-10
North West Wales	Isle of Anglesey UA	4045	3798
	Gwynedd UA	6877	6334
Conwy and	Conwy UA	5848	5616
Denbighshire	Denbighshire UA	5438	5084
North East Wales	Flintshire UA	8760	8292
	Wrexham UA	7153	7072

1997		Males 2-10	Females 2-10
North West Wales	Isle of Anglesey UA	4023	3785
	Gwynedd UA	6804	6357
Conwy and	Conwy UA	5820	5660
Denbighshire	Denbighshire UA	5322	5033
North East Wales	Flintshire UA	8718	8353
	Wrexham UA	7154	7031

1998		Males 2-10	Females 2-10
North West Wales	Isle of Anglesey UA	3916	3737
	Gwynedd UA	6624	6256
Conwy and	Conwy UA	5778	5651
Denbighshire	Denbighshire UA	5351	4937
North East Wales	Flintshire UA	8668	8329
	Wrexham UA	7051	6900

PROBLEM	Example	Estimated Prevalence	Gwent HA	Bro Taf HA	Dyfed Powys HA	**North Wales HA**	Iechyd Morgannwg HA	TOTALS FOR EACH PROBLEM
Anxiety	Generalised anxiety separation anxiety	4% of 3-15 year olds	3,981	5,254	3,0333	**4,258**	3,284	19,810
Conduct Problems	**Stealing Defiance**	**10% of 2-10s**	6,819	9,001	5,059	**7,353**	5,561	33,793
	Anti-social behaviour	**20% adolescents**	11,854	15,951	10,346	**13,072**	10,333	61,556
Emotional Problems	Persistent fears	4-5% of under 12s suffer distress	4,485	5,937	3,348	**4,854**	3,517	22,141
	Psychosomatic symptoms Lowered mood	2% under 12s suffer depressive symptoms	1,794	2,375	1,337	**1,943**	1,407	8,856
Hyperactivity	Inattentiveness Restlessness Inability to concentrate	10-20% of 10 year olds	13,638	18,002	10,118	**14,706**	11,121	67,585
Enuresis	Bed wetting	8% of 7 year olds	635	840	485	**685**	512	3,157
	Urinating in clothing	1% of 14 year olds	73	96	59	**80**	63	371
Feeding Problems	Refusal to eat Anxiety at meal times Exclusion of specific foods	12-14% preschool children	2,978	3,894	2,188	**3,242**	2,420	14,722
Tantrums	Uncontrollable outbursts Demanding behaviour Aggression	5% of 3 year olds	356	460	252	**387**	280	1,735
Simple Phobias	Distress in certain conditions e.g. water, insects, cars	2-9% of 2-10 year olds	6,137	8,100	4,553	**6,617**	5,005	30,412
Psychosomatic Problems	No organic cause for abdominal pain and headaches	10% of 5-10 year olds	4,691	6,219	3,496	**5,037**	3,832	23,275
TOTALS FOR WALES			57,441	76,129	44,274	**62,234**	47,335	287,413

These figures are based on Wallace et al, 1997. Caution should be registered about the totals as they are estimates of the numbers of conditions and not the numbers of children affected, which, due to co-morbidity, is likely to be smaller. However, the total number of children is likely to be an underestimate because only a selection of the problems, for which there is data, is listed here.

Appendix F   Examples from the Eyberg Child Behavior Inventory

Date:_____ Child's Name:_____

Age:_____

<u>Directions</u>: Below are a series of phrases that describe children's behaviour. Please (1) circle the number describing **how often** the behaviour currently occurs with your child, and (2) circle "Yes" or "No" to indicate whether the behaviour is currently **a problem** for you.

	Never		Seldom		Sometimes	Often		Always	Is this a problem for you?	
1. Is slow getting dressed	1	2	3	4	5	6		7	Yes	No
5. Refuses to do chores when asked	1	2	3	4	5	6		7	Yes	No
13. Has temper tantrums	1	2	3	4	5	6		7	Yes	No
19. Destroys toys and other objects	1	2	3	4	5	6		7	Yes	No
31. Fails to finish tasks or projects	1	2	3	4	5	6		7	Yes	No
35. Wets the bed	1	2	3	4	5	6		7	Yes	No

Thank you for filling this in. Please check that you have not missed any out.

Signature Mr/Mrs/Ms _____

Appendix G Measuring Child Behaviour: Examples from Achenbach forms

G.1 Examples from the Child Behavior Checklist for Ages 4-18:

Eight representative items:
0 = Not True (as far as you know) 1 = Somewhat or Sometimes True
2 = Very True or Often True

0	1	2	1.	Acts too young for his/her age
0	1	2	8.	Can't concentrate, can't pay attention for long
0	1	2	9.	Can't get his/her mind off certain thoughts; obsessions (describe)
0	1	2	22.	Disobedient at home
			32.	Feels he/she has to be perfect
0	1	2	39.	Hangs around with others who get into trouble
0	1	2	42.	Would rather be alone than with others
0	1	2	51.	Feels dizzy

G.2 Teacher's Report form for Ages 5-18

Eight representative items:
0 = Not True (as far as you know) 1 = Somewhat or Sometimes True
2 = Very True or Often True

0	1	2	4.	Fails to finish things he/she starts
0	1	2	10.	Can't sit still, restless or hyperactive
0	1	2	40.	Hears sounds or voices that aren't there (describe)
0	1	2	47.	Overconforms to rules
0	1	2	54.	Overtired
0	1	2	65.	Refuses to talk
0	1	2	76.	Explosive and unpredictable behavior
0	1	2	90.	Swearing or obscene language

Appendix H Self-Control Rating Scale

Name of Child _____ Age/Grade _____

Rater's Name _____

Circle one: Parent   Teacher

Please rate this child according to the descriptions below by circling the appropriate number. The underlined $\underline{4}$ in the center of each row represents where the average child would fall on this item. Please do not hesitate to use the entire range of possible ratings.

1. When the child promises to do something, can you count on him or her to do it?

    1 2 3 $\underline{4}$ 5 6 7
    always   never

2. Does the child butt into games or activities even when he or she hasn't been invited?

    1 2 3 $\underline{4}$ 5 6 7
    never   often

3. Can the child deliberately calm down when he or she is excited or all wound up?

    1 2 3 $\underline{4}$ 5 6 7
    yes   no

4. Is the quality of the child's work all about the same or does it vary a lot?

    1 2 3 $\underline{4}$ 5 6 7
    same   varies

5. Does the child work for long-range goals?

    1 2 3 $\underline{4}$ 5 6 7
    yes   no

6. When the child asks a question, does he or she wait for an answer, or jump to something else (e.g., a new question) before waiting for an answer?

    1 2 3 $\underline{4}$ 5 6 7
    waits   jumps

7. Does the child interrupt inappropriately in conversations with peers, or wait his or her turn to speak?

   1 2 3 <u>4</u> 5 6 7
<u>waits</u>   <u>interrupts</u>

8. Does the child stick to what he or she is doing until he or she is finished with it?

   1 2 3 <u>4</u> 5 6 7
<u>yes</u>   <u>no</u>

9. Does the child follow the instructions of responsible adults?

   1 2 3 <u>4</u> 5 6 7
<u>always</u>   <u>never</u>

10. Does the child have to have everything right away?

   1 2 3 <u>4</u> 5 6 7
<u>no</u>   <u>yes</u>

11. When the child has to wait in line, does he or she do so patiently?

   1 2 3 <u>4</u> 5 6 7
<u>yes</u>   <u>no</u>

12. Does the child sit still?

   1 2 3 <u>4</u> 5 6 7
<u>yes</u>   <u>no</u>

13. Can the child follow suggestions or others in group projects, or does he or she insist on imposing his or her own ideas?

   1 2 3 <u>4</u> 5 6 7
<u>able to follow</u> <u>imposes</u>

14. Does the child have to be reminded several times to do something before he or she does it?

   1 2 3 <u>4</u> 5 6 7
<u>never</u>   <u>always</u>

15. When reprimanded, does the child answer back inappropriately?

   1 2 3 <u>4</u> 5 6 7
<u>never</u>   <u>always</u>

16. Is the child accident prone?

   1 2 3 <u>4</u> 5 6 7
<u>no</u>   <u>yes</u>

17. Does the child neglect or forget regular chores or tasks?

   1 2 3 <u>4</u> 5 6 7
<u>never</u>   <u>always</u>

18. Are there days when the child seems incapable of settling down to work?

1 2 3 <u>4</u> 5 6 7
<u>never</u>   <u>often</u>

19. Would the child more likely grab a smaller toy today or wait for a larger toy tomorrow, if given the choice?

1 2 3 <u>4</u> 5 6 7
<u>wait</u>   <u>grab</u>

20. Does the child grab for the belongings of others?

1 2 3 <u>4</u> 5 6 7
<u>never</u>   <u>often</u>

21. Does the child bother others when they're trying to do something?

1 2 3 <u>4</u> 5 6 7
<u>no</u>   <u>yes</u>

22. Does the child break basic rules?

1 2 3 <u>4</u> 5 6 7
<u>never</u>   <u>always</u>

23. Does the child watch where he or she is going?

1 2 3 <u>4</u> 5 6 7
<u>always</u>   <u>never</u>

24. In answering questions, does the child give one thoughtful answer, or blurt out several answers at once?

1 2 3 <u>4</u> 5 6 7
<u>one answer</u>   <u>several</u>

25. Is the child easily distracted from his or her work or chores?

1 2 3 <u>4</u> 5 6 7
<u>no</u>   <u>yes</u>

26. Would you describe this child more as careful or careless?

1 2 3 <u>4</u> 5 6 7
<u>careful</u>   <u>careless</u>

27. Does the child play well with peers (follows rules waits turn, co-operates)?

1 2 3 <u>4</u> 5 6 7
<u>yes</u>   <u>no</u>

28. Does the child jump or switch from activity to activity rather than sticking to one thing at a time?

1 2 3 <u>4</u> 5 6 7
<u>sticks to one</u> <u>switches</u>

29. If a task is at first too difficult for the child, will
    he or she get frustrated and quit, or first seek help
    with the problem?

    1 2 3 <u>4</u> 5 6 7
<u>seek help</u>   <u>quit</u>

30. Does the child disrupt games

    1 2 3 <u>4</u> 5 6 7
<u>never</u>   <u>often</u>

31. Does the child think before he or she acts?

    1 2 3 <u>4</u> 5 6 7
<u>always</u>   <u>never</u>

32. If the child paid more attention to his or her work,
    do you think he or she would do much better than
    at present?

    1 2 3 <u>4</u> 5 6 7
<u>no</u>   <u>yes</u>

33. Does the child do too many things at once, or does
    he or she concentrate on one thing at a time?

    1 2 3 <u>4</u> 5 6 7
<u>one thing</u>   <u>too many</u>

Permission to use the SCRS and copies of the scale may be obtained from Professor
P C Kendall, Division of Clinical Psychology, Temple University, Philadelphia,
Pennsylvania 19122.

Appendix I Conners Abbreviated Parent Teacher Questionnaire

ABBREVIATED PARENT/TEACHER QUESTIONNAIRE

Name of child_____Date_____

Date of birth_____Name of parent/teacher_____

Age_____Sex_____

Instructions: Please answer all questions. Beside *each* item below, indicate the degree of the problem with a checkmark (√).

| | | Degree of | Activity | |
Observation	Not at all	Just a little	Pretty much	Very much
1. Restless or overactive				
3. Disturbs other children				
5. Constantly fidgeting				
6. Inattentive, easily distracted				
8. Cries often and easily				
10. Temper outbursts, explosive and unpredictable behavior				

Comments:_____

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Appendix J   Personal Data and Health Questionnaire
(from Hutchings, 1996)

PROJECT REF. NO.

DATE OF INITIAL INTERVIEW

1a.   Child's date of birth   Age   Sex

1b.   Primary carer   Age   Sex   Relationship to child

2.   Are you still the child's primary caregiver?

3a.   Did you have/were there any problems during pregnancy?

3b.   Did you have/were there any problems at the time of (child's) birth?

4.   CHILD'S HEALTH AND DEVELOPMENT

4a.   Has (child) had any health problems so far, other than normal illnesses?

4b.   Has (child) ever been in hospital? How many times?

4c.   How would you describe (child's) development so far (normal or causing concern)?

4d.   What is causing you concern about (child) at the moment?

4e.   How long have you had these concerns/has this been going on? Age of onset?

4f. Anything else that you would like to tell us about (child's) health or development?

5. HEATH OF PRIMARY CARE GIVER

Have you had any serious health problems since (child) was born?

6. OTHER FAMILY/HOUSEHOLD MEMBERS

6a. Who else lives with the child?

6b. Have any of the family members had or have serious health problems?

7. HOUSING

7a. Is your home

Owned ☐

Council/Housing association rented ☐

Privately rented unfurnished ☐

Privately rented furnished ☐

Other ☐

Please describe ....

7b.   Condition of the building

Good ☐

Acceptable ☐

Substandard ☐

7c.   How many bedrooms do you have the use of?

8.   PRIMARY CARER'S EDUCATION

8a.   How old were you when you left school?

8b.   Did you gain any qualifications at school?

8c.   Did you receive further or higher education after leaving school (e.g.   college, NVQs, YTS etc.)?

9.   FAMILY INCOME

9a.   What is your family's gross annual income?

9b.   Is this income mainly from state benefit or from a job?

9c.   Do you (the primary caregiver) do any part-time work?

9d.   (For single parents) Do you receive maintenance from a former partner for your children?

NAME OF SCHOOL

HEAD TEACHER

CLASS TEACHER

Appendix K Examples from the Parenting Stress Index

Ten sample items from the Parenting Stress Index are reproduced here

Name _____Gender ___ Date of Birth _____Ethnic group _____Marital status ___

Child's name_____ Gender___Child's date of birth_____Today's date_____

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

10. My child rarely does things for me that make me feel good	SA A NS D SD
19. My child generally wakes up in a bad mood	SA A NS D SD
20. I feel that my child is very moody and easily upset	SA A NS D SD
26. My child is not able to do as much as I expected	SA A NS D SD
34. My child gets upset easily over the smallest thing	SA A NS D SD
50. My child makes more demands on me than most children	SA A NS D SD
56. I often have the feeling that I cannot handle things well	SA A NS D SD
72. Since having this child, I have been unable to do new things	SA A NS D SD
80. There are quite a few things that bother me about my life	SA A NS D SD
92. When I go to a party, I usually expect not to enjoy myself	SA A NS D SD

For the next statement, choose your response from the choices
"1" to "5" below

58. I feel that I am: 1. not very good at being a parent
                             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

Appendix L Community Contacts Questionnaire and scoring for insularity

Scoring instructions follow the copy of the questionnaire.

Research Id. No._____

Name of child_____Date completed_____

Completed by_____

Relation to child_____

This questionnaire asks about the contact that you, the child's main carer, generally have with people outside your own home, that is people that you do not live with. Contact includes both seeing people and telephone contact. Please tick the box that describes most closely what happens to you.

1. Relatives

How often do you have contact with a relative or relatives?

Daily	Twice weekly	Weekly	Monthly	Six monthly or less

Please tick each of the following topics that you regularly discuss with your relative/s

Problems with your children
Finances or money
Doing things together
Things to do with your job
Health issues
Domestic matters
Things not involving you personally

How would you rate your contact with your relatives generally?

Very bad	Bad	Poor	Fair	Good	Very good

Do you feel that most of the contact that you have with your relatives is critical or supportive of your lifestyle in general?

Very critical	Critical	Mixed	Supportive	Very supportive

Do you feel that most of the contact that you have with your relatives is critical or supportive of your management of your child/children?

Very critical	Critical	Mixed	Supportive	Very supportive

2. Friends

How often do you have contact with a friend or friends?

Daily	Twice weekly	Weekly	Monthly	Six monthly or less

Please tick each of the following topics that you regularly discuss with your friend/s

Problems with your children
Finances or money
Doing things together
Things to do with your job
Health issues
Domestic matters
Things not involving you personally

How would you rate your contact with your friends generally

Very bad	Bad	Poor	Fair	Good	Very good

Do you feel that most of the contact that you have with your friends is critical or supportive of your lifestyle in general?

Very critical	Critical	Mixed	Supportive	Very supportive

Do you feel that most of the contact that you have with your friends is critical or supportive of your management of your child/children?

Very critical	Critical	Mixed	Supportive	Very supportive

3. Welfare agencies and helping professionals (e.g. DSS, your GP, Health Visitor, Social Worker)

How often do you have contact with these agencies and/or professionals?

Daily	Twice weekly	Weekly	Monthly	Six monthly or less

Please tick each of the following topics that you regularly discuss with these people.

Problems with your children
Finances or money
Doing things together
Things to do with your job
Health issues
Domestic matters
Things not involving you personally

How would you rate your contact with these agencies generally

Very bad	Bad	Poor	Fair	Good	Very good

Do you feel that most of the contact that you have with these agencies or professionals is critical or supportive of your lifestyle in general?

Very critical	Critical	Mixed	Supportive	Very supportive

Do you feel that most of the contact that you have with these agencies or professionals is generally critical or supportive of your management of your child/children?

Very critical	Critical	Mixed	Supportive	Very supportive

4. Other people

Do you have contact with any other significant person or people not covered by the above, e.g. people at work. If so who are they and how would you rate your contact with them?

Other regular contacts

How often do you have contact with these people?

Daily	Twice weekly	Weekly	Monthly	Six monthly or less

Please tick each of the following topics that you regularly discuss with these people

Problems with your children
Finances or money
Doing things together
Things to do with your job
Health issues
Domestic matters
Things not involving you personally

How would you rate your contact generally with these people?

Very bad	Bad	Poor	Fair	Good	Very good

Do you feel that most of the contact that you have with these people is critical or supportive of your lifestyle in general?

Very critical	Critical	Mixed	Supportive	Very supportive

Do you feel that most of the contact that you have with these people is critical or supportive of your management of your child/children?

Very critical	Critical	Mixed	Supportive	Very supportive

5. Time spent each day with others.

How much time each day do you generally spend in the company of people that you do not live with?

Less than half an hour	One hour	Up to two hours	Two to four hours	Over four hours

Overall how would you rate your social network?

Very bad	Bad	Poor	Fair	Good	Very good

Scoring the Community Contacts Questionnaire

Two measures were derived from the Community Contacts Questionnaire. One was a measure of the quality of contact with friends and relatives, and the other was an insularity score.

1   Quality of contact

Quality questions, those relating to support of lifestyle and management of children, are scored 1-5, with very critical scoring 1 and very supportive scoring 5. Quality of contact was obtained by summing the scores from questions about relatives and friends (maximum score 20).

2   Insularity

i)   Identify whether one source of contact, friends or relatives, occurs more frequently that the other by comparing responses to questions on frequency of contact.

ii)   If one source of contact is more frequent than the other, look at responses to questions on quality of support for lifestyle and management of children for that source of contact only. If either of these has a score of 3 or below, that person scores as insular.

iii)   If frequency of contact is the same for friends and relatives, look at each category in turn. If there is a score of 3 or lower for at least one of the quality of contact questions for both friends and relatives, score as insular.

Appendix M Parenting Scale

Child's Name:_____   Today's Date:_____

Sex: Boy_____   Girl_____   Child's Birthdate_____

At one time or another, all children misbehave or do things that could be harmful, that are "wrong", or that parents don't like. Examples include:

hitting someone	*whining*	*throwing food*
forgetting homework	*not picking up toys*	*lying*
having a tantrum	*refusing to go to bed*	*wanting a cookie before dinner*
running into the street	*arguing back*	*coming home late*

Parents have many different ways or styles of dealing with these types of problems. Below are items that describe some styles of parenting.

For each item, fill in the circle that best describes your style of parenting during the past two months with the child indicated above.

SAMPLE ITEM

At meal time . . .

I let my child decide how much to eat.   0--0--0--0--0--0--0   I decide how much my child eats.

---

1   **When my child misbehaves ...**

I do something right away.   0--0--0--0--0--0--0   I do something about it later.

2   **Before I do something about a problem ...**

I give my child several reminders or warnings.   0--0--0--0--0--0--0   I use only one reminder or warning.

3   **When I'm upset or under stress ...**

I am picky and on my child's back.   0--0--0--0--0--0--0   I am no more picky than usual.

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4   When I tell my child not to do something

I say very little.   0--0--0--0--0--0--0   I say a lot.

5   When my child pesters me ...

I can ignore the   0--0--0--0--0--0--0   I can't ignore the
pestering.   pestering.

6   When my child misbehaves ...

I usually get into along 0--0--0--0--0--0--0   I don't get into an
argument with my   argument.
child.

7   I threaten to do things that ...

I am sure I can carry   0--0--0--0--0--0--0   I know I won't actually
out.   do.

8   I am the kind of parent that ...

sets limits on what my   0--0--0--0--0--0--0   lets my child do
child is allowed to do.   whatever he or she
                                                    wants.

9   When my child misbehaves ...

I give my child a long   0--0--0--0--0--0--0   I keep my talks short
lecture.   and to the point.

10   When my child misbehaves ...

I raise my voice or yell. 0--0--0--0--0--0--0   I speak to my child
                                                    calmly.

11   If saying no doesn't work right away ...

I take some other kind   0--0--0--0--0--0--0   I keep talking and try to
of action.   get through to my child.

12   When I want my child to stop doing something ...

I firmly tell my child to 0--0--0--0--0--0--0   I coax or beg my child
stop.   to stop.

13   When my child is out of my sight ...

I often don't know what my child is doing. 0--0--0--0--0--0--0 I always have a good idea of what my child is doing.

14 **After there's been a problem with my child ...**

I often hold a grudge. 0--0--0--0--0--0--0 things get back to normal quickly.

15 **When we're not at home ...**

I handle my child the way I do at home. 0--0--0--0--0--0--0 I let my child get away with a lot more.

16 **When my child does something I don't like ...**

I do something about it every time it happens. 0--0--0--0--0--0--0 I often let it go.

17 **When there's a problem with my child ...**

things build up and I do things I don't mean to do. 0--0--0--0--0--0--0 things don't get out of hand.

18 **When my child misbehaves, I spank, slap, grab, or hit my child ...**

never or rarely. 0--0--0--0--0--0--0 most of the time.

19 **When my child doesn't do what I ask ...**

I often let it go or end up doing it myself 0--0--0--0--0--0--0 I take some other action.

20 **When I give a fair threat or warning ...**

I often don't carry it out. 0--0--0--0--0--0--0 I always do what I said.

21 **If saying no doesn't work ...**

I take some other kind of action. 0--0--0--0--0--0--0 I offer my child something nice so he/she will behave.

22   **When my child misbehaves ...**

I handle it without O--O--O--O--O--O--O I get so frustrated or
getting upset.   angry that my child can
see I'm upset.

23   **When my child misbehaves ...**

I make my child tell me O--O--O--O--O--O--O I say "no" or take
why he/she did it.   some other action.

24   **If my child misbehaves and then acts sorry ...**

I handle the problem O--O--O--O--O--O--O I let it go that time.
like I usually would.

25   **When my child misbehaves ...**

I rarely use bad O--O--O--O--O--O--O I almost always use bad
language or curse.   language.

26   **When I say my child can't do something ...**

I let my child do it O--O--O--O--O--O--O I stick to what I said.
anyway.

27   **When I have to handle a problem ...**

I tell my child I'm O--O--O--O--O--O--O I don't say I'm sorry.
sorry about it.

28   **When my child does something I don't like, I insult my child, say mean things, or call my child names ...**

never or rarely. O--O--O--O--O--O--O most of the time.

29   **If my child talks back or complains when I handle a problem ...**

I ignore the O--O--O--O--O--O--O I give my child a talk
complaining and stick   about not complaining.
to what I said.

30   **If my child gets upset when I say "No", ...**

I back down and give in O--O--O--O--O--O--O I stick to what I said.
to my child.

Appendix N Examples from the Standardized Observation Codes

Code	Valence		Example
Maternal Social Approach/Attention	Positive	MA+	Mother picks up toy, smiling as she gives it: "Here you are."
	Neutral	MA	"How's your runny nose?"
	Aversive	MA-	Mother enters child's room and yells: "This place is a tip. You're so lazy!"
Maternal Instruction	Positive	MI+	Mother: "Open this jar for me please, love. My wrist's hurting".
	Neutral	MI	Mother: "Time to feed the guinea pig."
	Aversive	MI-	Mother yells: "Get out of here".
Maternal Opposition	Positive	MO+	Child: "Bring me a drink". Mother: "You get it. I'm busy at the moment."
	Neutral	MO	Mother is reading. Child says "Give me some ice-cream." Mother ignores command and keeps reading.
	Aversive	MO-	Child: "Give it to me now". Mother continues washing up, saying "Tom, if you don't shut up, you'll get a smack".
Maternal Compliance	Positive	MC+	Child: "Help me with these buttons". Mother helps and kisses child at the same time.
	Neutral	MC	Child: "Mum, come here". Mother approaches.
	Aversive	MC-	Child: "Give me a biscuit". Mother gives it saying "Take it and shut up".
Mother Participation		MPt	Mother attends to child silently. There is no specific physical or verbal behaviour.
Mother Work		MW	Mother picks up crayon and draws

General and specific categories

These categories are applied only to maternal speech.

Examples:

MA+	general	Good boy. That's it.
MA+	specific	That's a really good circle. You are very good at drawing circles.
MA	general	(in response to child opposition) Why not?
MA	specific	That one is round
MI+	general	Please. Please do it.
MI+	specific	Please draw a big circle here.
MI	general	Do lots.
MI	specific	Draw a circle here. Draw lots of small circles which touch each other.

Child coding

Code	Valence		Example
Social Approach/Attention	Positive	A+	Child approaches mother and kisses her. Mother puts her arm around the child who then looks up at her and smiles.
	Neutral	A	Mother asks "What did you do today?" Child: "I played with Tim."
	Aversive	A-	Child "You are stupid".
Instruction	Positive	I+	Child, politely "Please will you pass the ketchup?"
	Neutral	I	Child "Give me a piece of cake"
	Aversive	I-	Child "Oh, shut up!".
Opposition	Positive	O+	Child indicates that he will comply with the parent's instruction as soon as he completes an ongoing task.

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Code	Valence		Example
	Neutral	O	Child ignores mother's command to stop playing and come to eat.
	Aversive	O-	In addition to not complying, child sticks tongue out at mother.
Compliance	Positive	C+	Child is told to feed dog and says "Yes, of course" and immediately starts the task.
	Neutral	C	Child is told to do homework and does it.
	Aversive	C-	Child empties bins after being asked to do so, but saying "Why is it always me?" to mother.
Rule violation		RV	Child paints on the wall.
Work		W	Child is engaged on task of drawing circles
Nothing		N	Child is sitting at the table staring at nothing.
Play		P	Child pets her dog.
Time out			Mother tells child to go to time out and child complies immediately.Child is away from a situation of social reinforcement.

Appendix O Scoring for the Mother-Child Interaction Scale

1 = Negative   2 = Neutral   3 = Positive

Please CIRCLE number that corresponds to rating

A   **How does parent direct child?**
| 1 | 2 | 3 |

Terse,
demanding

Pleasant, 'please',
gives choices

B   **Name mother uses for child**
| 1 | 2 | 3 |

No name, negative

Child's name, name used often,
affectionate name

C   **Touches (not to relocate child**
| 1 | 2 | 3 |

Touch absent or aggressive

Frequent positive touch

D   **Physical control of child**
| 1 | 2 | 3 |

Pushes, pulls, rough

Not necessary to physically move
the child, relies on requests or
gentle physical prompts

E   **Observes child**
| 1 | 2 | 3 |

Ignores

Keeps child in vision

F   **Maternal expression**
| 1 | 2 | 3 |

Angry, bored

Loving, pleasant

G   **Child interacts with mother**
| 1 | 2 | 3 |

Timidly or not at all

Easily, positively

H   **Who controls**
| 1 | 2 | 3 |

Mother struggling for
control, mother rigidly in
control

Mother comfortably directs child

I   **Responsiveness to child's verbalisation**
| 1 | 2 | 3 |

Ignores, interrupts

Listens and responds

J *   **Talking about child**
| 1 | 2 | 3 |

As if child is not there

Involving child

* Score only if mother talks to another person about or for the child, otherwise score 0.

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Appendix P The Parent-Child Autobiographical Memory Test: Administration instructions and scoring form

The PCAMT instructions are administered in a standardised way:

"I am interested in your memory for events that happened in (name of child)'s life. I am going to read you some words. For each word, I want you to think of an event that happened to (child) which the word reminds you of. The event could have happened recently (yesterday, last week) or when (child) was younger. It might be an important event or a trivial event.

Just one more thing: the memory you recall should be of a particular occasion. So if I said the word 'good' it would not be O. K. to say "(child) is always good at bedtime" because that does not mention a specific event. But it would be O. K. to say "(child) was good when I put him to bed last night" because that is a specific event.

Let us try some words for practice: happy, bold, enjoy. "

The time allowed for a response was 30 seconds which could include prompts in response to generic replies *"Can you think of a particular time?"*

Responses to the ten words were recorded by hand by the test administrator and, in any case of uncertainty, a further response was prompted. Scoring involved counting the number of words for which the first response within thirty seconds was rated as specific.

Parent-child autobiographical memory test.

Name of respondent_____Research no. _____

cue word	latency in seconds	response/s	time since event
helpless	___ ___ ___		
excited	___ ___ ___		
upset	___ ___ ___		
calm	___ ___ ___		
hurt	___ ___ ___		
pleased	___ ___ ___		
bad	___ ___ ___		
proud	___ ___ ___		
guilty	___ ___ ___		
peaceful	___ ___ ___		

After completing presentation of all ten words, please review specific answers and note the code for time since event as per the following scale.

1	2	3	4	5	6
Up to one week	Up to one month	Up to three mos	Up to six mos.	Up to one year	Over one year

Parent-Child Autobiographical Memory Test scoring sheet

Research No. _____ Initial/follow-up interview_____

Scored by_____

	no prompt	prompt		no prompt	prompt
1. helpless					
2.			excited		
3. upset					
4.			calm		
5. hurt					
6.			pleased		
7. bad					
8.			proud		
9. guilty					
10.			peaceful		

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Scores

total without prompt _____ total incl. prompts _____

negative words without prompt _____ neg. incl. prompts _____

positive words without prompt _____ pos. incl. prompts _____

Appendix Q   **Consumer Satisfaction and Outcome Questionnaire**

This questionnaire is in three sections, a) the general arrangements, b) what actually happened when you were seen and c) how useful the service was in dealing with the problem/s. Please answer all questions and underline or tick the appropriate box.

Section One. General Arrangements.

1. How long did you wait for your first appointment?_____

How satisfied were you with this?

very satisfied	satisfied	undecided	dissatisfied	very dissatisfied

2. Were you satisfied with the information you received before the first appointment?

very satisfied	satisfied	undecided	dissatisfied	very dissatisfied

If not satisfied, what else would you have liked to know before your first appointment?_____

_____

_____

3. Where were you seen?

_____

How satisfied were you with this?

very satisfied	satisfied	undecided	dissatisfied	very dissatisfied

If you were not seen at home, how satisfied were you with the surroundings for you and your child?

a) in the waiting room

very satisfied	satisfied	undecided	dissatisfied	very dissatisfied

b) in the consultation room

very satisfied	satisfied	undecided	dissatisfied	very dissatisfied

4. At what time of day were you seen?_____

Were you satisfied with this?

very satisfied	satisfied	undecided	dissatisfied	very dissatisfied

Were you given a choice of time? yes_____ no_____

Any other comments about the general arrangements?

_____

_____

_____

Section Two. What happened during therapy?

1. Was sufficient time spent in investigating the problem?

yes, definitely	yes, probably	undecided	probably not	definitely not

2. Do you feel that the therapist really understood the problem?

yes, definitely	yes, probably	undecided	probably not	definitely not

3. Do you feel that you received sufficient explanation about the problem/s?

yes, definitely	yes, probably	undecided	probably not	definitely not

4. How often were you seen?

weekly	fortnightly	monthly	two monthly	other

Were you satisfied with the number and frequency of appointments?

very satisfied	satisfied	undecided	dissatisfied	very dissatisfied

Comments

_____

_____

_____

5. Would you recommend the service to another parent experiencing a similar problem?

yes, definitely	yes, probably	undecided	probably not	definitely not

6. How satisfied were you overall with the service that you received?

very satisfied	satisfied	undecided	dissatisfied	very dissatisfied

Section Three. Outcomes.

1. What was the problem for which your child was referred?

_____

_____

2. How would you **now** rate the problem for which you sought help ?

a lot better	a little better	no change	a little worse	a lot worse

3. Did you learn helpful ways of dealing with the problem as a result of the therapy?

yes, definitely	yes, probably	undecided	probably not	definitely not

If yes, have the things you learned helped you to deal successfully with other problems?

yes, definitely	yes, probably	undecided	probably not	definitely not

Any other comments or suggestions?

_____

_____

_____

Thank you for completing this questionnaire.

Judy Hutchings, Child and Adolescent Mental Health Service

Appendix R Summary of baseline data for whole sample

Variable	Mean	SD	Min	Max	N	95% Confid Interv for mean	
Child age	72.7	24.2	27.4	120.8	41	65.4 -	81.2
Mother age	28.9	5.3	22.0	48.0	41	27.4 -	31.1
Duration of problem (months)	40.6	28.0	2.0	98.0	40	31.5 -	50.7
Socioeconomic disadvantage index	2.9	1.5	1.0	6.0	33	2.3 -	3.4
Time from initial interview to treatment	2.4	2.4	-1.2	9.3	37	1.5 -	3.0
Child measures Eyberg measures (taken prior to baseline)							
Eyberg Intensity	174.4	24.4	94.0	236.0	41	166.7 -	182.1
Eyberg Total Problem	22.9	6.3	6.0	34.0	41	20. 9 -	24.9
Achenbach							
Externalising raw	34.5	8.3	19.0	49.0	39	31.9 -	37.2
Externalising T	75.2	6.9	63.0	91.0	39	72.2 -	77.3
Internalising raw	18.1	8.9	5.0	39.0	39	15.2 -	21.0
Internalising T	67.6	9.2	51.0	88.0	39	64.6 -	70.6
Total Child Behavior Checklist Score raw	85.2	26.6	48.0	143.0	39	76.6 -	93.8
Total Child Behavior Checklist Score T	74.8	6.8	65.0	90.0	39	72.6 -	77.0
Developmental Quotient	84.8	17.3	38.8	123.8	35	77.9 -	93.0
Self-Control Rating Scale (P)	174.2	25.9	132.0	218.0	39	164.0 -	192.8
Conners (P)	23.6	4.8	14.0	30.0	25	21.1 -	26.0
Conners (A)	5.6	5.2	.0	18.0	19	2.8 -	7.9
Parental measures Mental health							
BDI	13.8	12.3	.0	53.0	41	9.9 -	17.6
GHQ	8.4	8.3	.0	29.0	38	5.7 -	11.1
GDJ[1]	14.3	7.0	.0	29.0	38	12.1 -	16.6
Parenting Stress Index							
Defensive responding	19.6	6.0	9.0	33.0	40	17.7 -	21.5
Parent distress	31.9	10.2	14.0	58.0	40	28.6 -	35.2
Parent-child domain	32.4	8.9	12.0	58.0	40	29.5 -	35.2
Difficult child	45.0	6.5	28.0	59.0	40	42.9 -	47.1
Total	109.2	20.7	69.0	175.0	40	102.6 -	115.8

	Mean	SD	Min	Max	N	95% Confid Interv for mean	
Parenting Scale Factor scores							
Over-reactivity	3.3	1.01	1.3	5.1	29	2.9-	3.6
Lax	3.1	1.4	1.9	6.7	29	2.6 -	3.6
Verbosity	4.3	1.0	1.9	6.9	29	3.9 -	4.7
Total	3.4	.8	2.1	5.2	29	3.1 -	3.8
Social isolation							
Community Contacts Questionnaire	15.3	3.1	7.0	20.0	39	14.3 -	16.3
Parent-child Autobiographical Memory Test	6.2	2.2	1.0	9.0	41	5.5 -	6.9

[1] GHQ scored according to Goodchild and Duncan-Jones' method.
P = parent report
A = assessor report

Data from Teachers

	Mean	SD	Min	Max	N	95% Confid Interv for mean	
Achenbach Teacher Report Form							
Externalising raw	25.0	15.9	2.0	48.0	14	15.8-	34.2
Externalising T	64.1	12.1	43.0	80.0	14	57.2 -	71.1
Internalising raw	6.9	5.2	.0	17.0	14	3.9 -	10.0
Internalising T	52.9	8.8	37.0	67.0	14	47.8 -	57.9
Total	58.6	28.6	8.0	113.0	14	42.0 -	75.1
Total T scores	63.6	8.5	48.0	79.0	14	58.7 -	68.5
Self-Control Rating Scale	161.5	33.0	79.0	200.0	20	153.5 -	182.6
Conners	17.7	5.7	.0	25.0	15	17.1 -	20.7

Appendix S   Descriptive data by group at both measurement points.

Table S.1. Descriptive data for standard treatment group.

Variable	Baseline			Follow-up		
	Mean	SD	N	Mean	SD	N
Externalising behaviours T score	75.1	5.8	17	67.8	9.3	13
Developmental Quotient	82.3	21.5	15	86.9	22.7	14
Beck Depression Inventory	13.5	10.4	19	10.3	11.1	13
General Health Questionnaire	6.5	6.7	19	6.5	8.6	13
GHQ (Goodchild & D.J.)	14.4	5.1	20	11.9	8.4	13
Parenting Stress Index	106.5	16.1	18	91.8	14.8	12
Parenting Scale	3.7	.6	12	3.1	.9	12
Community Contacts Quest.	14.6	3.5	17	14.2	3.1	13
Consumer Satisfaction				4.4	.8	14
Recommend to friend				4.5	.9	14
Outcome				11.9	3.1	14
Arrangements				16.0	2.7	14
Therapy				16.6	4.2	14
PCAMT	5.9	2.4	19	7.2	2.1	13
Duration of Problem	42.3	30.2	19			
Age of mother	28	5.8	19			
Age of child	74.2	21.7	19			
Index of SE Deprivation	3.4	1.3	13			
Eyberg Intensity	173.2	21.3	19			
Eyberg Total Problem	23.1	6.0	19			

Table S.2. Descriptive data for intensive treatment group.

Measure	Baseline			Follow-up		
	Mean	SD	N	Mean	SD	N
CBCL Externalising T	75.4	7.8	22	63.9	11.1	21
Developmental Quotient	86.6	13.7	20	92.9	15.5	20
Beck Depression Inventory	14.1	14.0	22	7.9	9	21
General Health Questionnaire	9.9	9.3	21	3.7	5.5	20
GHQ (Goodchild & D.J.)	14.5	8.1	29	8.7	6.8	20
Parenting Stress Index	111.5	23.9	22	87.7	18.5	20
Parenting Scale	3.3	.9	17	2.5	.8	21
Community Contacts Quest.	15.7	2.8	22	16.7	3.1	21
Consumer Satisfaction				4.6	.6	20
Recommend to Friend				4.8	.4	20
Outcome				13.7	1.9	20
Arrangements				17.7	2.2	20
Therapy				18.2	2.2	20
PCAMT	6.4	2.1	22	7.3	2	21
Duration of Problem	39.1	26.4	21			
Age of mother	29.6	4.9	22			
Age of child	71.5	26.5	22			
Index of SE Deprivation	2.7	1.6	20			
Eyberg Intensity	175.4	27.2	22			
Eyberg Total Problem	22.7	6.8	22			

Appendix T   Data for those not included at follow-up

Measure	Mean	SD	N
Eyberg Intensity	176.7	19.9	6
Eyberg Total Problem	24.0	7.7	6
CBCL Externalising T	74.4	6.2	6
Developmental Quotient	73.6	14.0	3
Beck Depression Inventory	17.3	15.5	6
General Health Questionnaire	10.5	7.6	4
GHQ (Goodchild & D.J.)	15.25	7.9	4
Parenting Stress Index	112.8	21.3	5
Parenting Scale	3.6	.8	4
Community Contacts Quest.	16.8	2.6	4
PCAMT	6.2	1.7	6
Duration of Problem	45.7	37.2	6
Age of mother	30.7	9.0	6
Age of child	88.0	25.3	6
Index of SE Deprivation	3.4	1.1	5

Appendix U Data from the Brown Circles task and reliability

Overall Pearson reliabilities were .7 for child coding and .8 for maternal coding for the categories reported in the thesis. Reliabilities are as follows:

Child coding (N = 9)

	r
Child Opposition	.9
Child Compliance	1.0
Rule Violation (n = 8)	- .1
Work	1.0
Nothing	.5

Mother coding (N = 9)

	r
Maternal Approach	
positive	1.0
negative	1.0
Maternal Specific	.9
Instruction	
Mother Participation	.2

Reliability on the Mother-child Interaction Scale was r = .9, p<.001 (N = 9).

Code	Intensive (n = 18)		Standard (n = 13)	
	mean	SD	mean	SD
MA+	10.9	12.2	6.1	6.1
MA	22.9	13.4	14.7	11.6
MA-	.7	1.7	.1	.3
MA total	34.4	16.2	20.9	16.1
MI+	.6	2.3	2.4	3.9
	28.2	14.3	31.8	23.7
MI-	.6	1.3	.1	.3
MI total mean	29.4	16.1	33.8	27.3
MI spec	21.5	13.3	21.5	11.9
MPt	33.8	8.5	33.8	10.4

Means and standard deviations for scorings for the Mother-child Interaction Scale were as follows:

	Mean	SD	Min	Max	N
whole group	20.3	5.1	12	26	30
intensive	20.8	5.0	12	26	18
standard	19.5	5.5	12	26	12

For this scale, the minimum score was 10 and maximum possible, 30.

Children's results from the Brown Circles task

Code	Intensive N = 18		Standard N = 13	
	Mean	SD	Mean	SD
C+	.9	3.8	1.2	4.4
C	14.9	11.1	19.9	18.0
C-	1.3	3.1	.7	1.6
C total	17.2	13.4	21.4	22.1
O+	1.3	2.5	1.3	1.5
O	6.7	9.5	8.2	16.9
O-	3.4	5.4	2.9	6.3
O total	11.4	12.7	12.3	21.5
Work	29.6	12.4	32.2	14.1
RV	.2	.5	.5	.6
Nothing	1.8	3.8	1.5	5.6

Appendix V Frequency of use of behavioral intervention strategies by therapists involved with the standard treatment group

Behavioural intervention strategies used in standard treatment	No. of cases	% of sample
1. Recording observations of parent/s and child	4	40
2. Design record sheet/ask parents to keep records	7	70
3. Agree and provide written summary of homework tasks	3	30
4. Set homework reading assignments	5	50
5. Provide written agreements on goals	1	10
6. Provide star charts/intervention record sheets	5	50
7. Use own observation to identify reinforcers/punishers	4	40
8. Provide specific feedback to parent based on observation/parental records	8	80
9. Teach parents to reinforce incompatible behaviour	8	80
10. Discuss what is reinforcing problems with parent/s	9	90
Total sample	10	100

An average of five strategies was used in interventions with the standard treatment parents, suggesting that the interventions were primarily, as anticipated, behavioural and focused on direct work with parents. The last three strategies presented in the table were the most frequently employed. These are the less specific components of behavioural interventions and do not involve therapist recording of interactions or the provision of written agreements and tasks for parents. Sixty-six percent of parents were asked to keep records although it is not clear what percentage of parents completed this task.

Nine of the intervention strategies were consistently used with the families in intensive treatment. Agreeing written goals was the strategy not used with all families in this group.

Appendix W Baseline data for sample used in adult attachment investigations (N = 29)

Variable	Mean	SD	95% CI for mean	
Child age	71.4	25.8	61.6,	81.2
Eyberg Intensity	175.3	26.5	165.2,	185.3
Eyberg Problem	23.5	6.8	20.9,	26.0
Mother age	29.3	6.1	27.0,	31.6
Socioeconomic index	3.0	1.5	2.5,	3.6
Duration of problem	37.2	26.9	25.5,	45.6
Time from initial interview to treatment (mon)	1.8	1.3	1.3,	2.3
BDI	14.1	12.9	9.6,	19.6
GHQ (n = 28)	8.6	9.0	5.1,	12.1
Externalising behaviour (P) (n = 28)	76.5	7.0	69.9,	79.9
Externalising behaviour (T) (n = 9)	67.3	9.0	65.7,	74.1
Preschool Behavior Quest. (n = 5)	26.4	14.3	8.6,	44.2
DQ (n = 25)	82.7	18.4	82.0,	95.0
Self-Control Rating Scale (P)	177.3	25.9	173.2,	210.0
Self-Control R Scale (T) (n = 13)	167.9	26.3	150.1,	190.4

Variable	Mean	SD	95% CI for mean	
Conners (P) (n = 25)	23.6	4.8	22.8,	28.5
Conners (T) (n = 14)	17.7	6.0	14.3,	21.2
Parenting Stress Index parent-domain	32.8	9.9	25.9,	40.2
Parenting Stress Index parent-child domain	45.4	7.3	29.1,	41.1
Parenting Stress Index child domain	109.4	22.9	43.1,	51.1
Parenting Stress Index total	16.1	2.6	100.9,	129.6
Community Contacts Quest.	6.3	2.1	13.6,	16.9
Parent-Child Autobiograph. Memory Test	20.9	4.9	5.5,	7.4
Close	16.7	4.6	19.1,	22.8
Depend	17.0	7.2	14.9,	18.4
Anxiety	3.1	1.4	14.3,	19.7
Lax factor	3.3	1.0	2.6,	3.6
Overreactivity	4.3	1.0	2.9,	3.6
Verbosity	3.4	.8	3.9,	4.7
Total dysfunctional parenting	31.2	10.3	3.1,	3.7

P = rated by mother
T = rated by teacher

Appendix X Copy of the Adult Attachment Scale (Collins and Read, 1990) and scoring

CLOSE RELATIONSHIPS

Please read each of the following statements and rate the extent to which it describes **you** and your feelings about **ANYONE TO WHOM YOU FEEL CLOSE**. Think about **all** your close relationships, past and present, and respond in terms of how you generally feel in these relationships. Please use the scale below and indicate the degree to which each statement is true of you by ticking in one of the spaces provided to the right of each statement.

	Not at all true of me	Not really true of me	Not sure	True of me	Very true of me
1 I find it relatively easy to get close to others.					
2 I find it difficult to allow myself to depend on others.					
3 In relationships, I often worry that my partner does not really love me.					
4 I find that others are reluctant to get as close as I would like.					
5 I am comfortable depending on others.					
6 I do not worry about someone getting too close to me.					
7 I find that people are never there when you need them.					
8 I am somewhat uncomfortable being close to others.					
9 In relationships, I often worry that my partner will not want to stay with me.					
10 When I show my feelings for others I'm always afraid they will not feel the same about me.					
11 I often wonder whether my partner really cares about me.					
12 I am comfortable developing close relationships with others.					
13 I am nervous when anyone gets too close.					
14 I know that people will be there when I need them.					
15 I want to get close to people but I worry about being hurt by them.					
16 I find it difficult to trust others completely.					
17 Often, my partner wants me to be closer than I feel comfortable being.					
18 I am not sure that I can always depend on others to be there when I need them.					
	1	2	3	4	5

	Not at all true of me	Not really true of me	Not sure	True of me	Very true of me

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Scoring instructions for the revised Adult Attachment Scale

The scale contains three subscales, each composed of six items. The three subscales are <u>Close</u>, <u>Depend</u>, and <u>Anxiety</u>. The Close scale measures the extent to which a person is comfortable with closeness and intimacy. The Depend scale measures the extent to which a person feels comfortable with closeness and intimacy. The Depend scale measures the extent to which a person feels he/she can depend on others to be available when needed. The Anxiety scale measures the extent to which a person is worried about being rejected or unloved.

Scoring: Sum the rating for the six items that make up each subscale as indicated below. Items with an asterisk should be reverse-coded before summing.

Scale	Items					
Close	1	6	8*	12	13*	17*
Depend	2*	5	7*	14	16*	18*
Anxiety	3	4	9	10	11	15

Collins has provided instructions for creating Bartholemew's four attachment styles. 'I have defined the styles in terms of theoretically expected profiles along the attachment dimensions. For example, a secure person should score high on the close and depend dimensions, and low on the anxiety dimension. I define a 'high' score as being above the midpoint on a 5-point scale and a low score as below the midpoint. (Please note that this is NOT the same as performing a median split.) However, what this means is that individuals who score at the midpoint will be excluded from the sample. On the one hand, this method provides a more clear assessment of attachment style because we exclude individuals who appear to fall on the boundary of more than one style, or who don't clearly belong to any style. On the other hand, this is problematic because we lose important data points, and we have to worry whenever we remove any subjects from our sample. At present, we have used this procedure in only a handful of samples but we are finding that we lose about 7% of our sample. We are continuing to explore the validity of this method of scoring and we suggest that it be used with caution, and only in conjunction with the continuous measures that include the entire sample.

To create attachment styles, compute means from each scale. Combine Close and Depend into a single composite (ClosDep = mean of Close and Depend)

Compute an attachment style variable by using cut-off scores above/below the midpoint.

If (CloseDep > 3) and (Anxiety < 3)   style = 1   = Secure
If (CloseDep > 3) and (Anxiety > 3)   style = 2   = Preoccupied
If (CloseDep < 3) and (Anxiety < 3)   style = 3   = Dismissive
If (CloseDep < 3) and (Anxiety > 3)   style = 4   = Fearful

Appendix Y   Baseline data for secure and insecure samples, and those not included in the study

	Insecure			Secure			Not included in attachment study		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Child age	75.3	24.5	15	64.1	26.8	12	77.4	21.1	14
Eyberg Intensity	184.1	23.0	15	164.4	28.2	12	172.4	19.6	14
Eyberg Problem	26.4	4.1	15	19.8	7.3	12	21.8	6.0	14
Mother age	28.5	4.7	15	29.1	7.5	12	29.1	4.0	14
Socioeconomic index	3.3	1.5	15	2.8	1.4	12	2.3	1.5	6
Duration of problem	32.1	23.0	15	40.7	30.8	12	50.3	28.4	13
Time from initial interview to treatment (mon)	1.7	1.6	12	1.9	1.2	12	3.7	3.3	13
BDI	19.4	14.6	15	7.0	5.8	12	13.7	11.5	14
GHQ	10.7	10.0	15	3.6	3.2	11	9.8	7.9	12
Externalising behaviour (P)	77.4	7.1	14	76.2	7.0	12	72.1	6.0	13
Externalising behaviour (T)	67.3	11.1	6	67.0	5.7	2	60.0	14.7	6
Preschool Behavior Quest.	47.0		1	21.3	9.1	4	33.0	9.9	2
DQ	84.2	19.3	13	82.6	17.0	10	87.1	16.6	12
Self-Control Rating Scale (P)	181.1	27.2	15	172.9	23.9	12	166.9	26.2	12
Self-Control Rating Scale (T)	178.3	26.4	6	157.8	26.5	6	151.5	39.8	8
Conners (P)	23.5	5.1	13	23.9	4.8	10	23.0	5.7	2
Conners (T)	16.9	8.3	7	18.0	2.0	6	19.5	3.5	2
Parenting Stress Index parent-domain	35.3	9.6	15	25.0	7.2	12	34.3	10.8	13
Parenting Stress Index parent-child domain	36.3	8.8	15	27.0	8.2	12	32.8	7.5	13
Parenting Stress Index child domain	45.4	8.3	15	43.8	4.9	12	45.6	5.8	13
Parenting Stress Index total	117.0	23.8	15	95.8	14.5	12	112.7	16.3	13
Community Contacts Quest.	16.1	1.8	15	16.6	3.1	12	12.9	3.3	12
Parent-Child Autobiograph. Memory Test	5.9	2.2	15	6.5	2.2	12	6.2	2.4	14
Close	19.1	4.7	15	24.3	3.1	12	15.0	1.4	2
Depend	13.3	3.2	15	20.1	3.1	12	21.0	1.4	2
Anxiety	22.3	4.7	15	10.9	3.5	12	14.0	11.3	2

	Insecure			Secure			Not included in attachment study		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Lax factor	3.1	1.3	15	2.7	1.2	12	5.4	1.9	2
Overreactivity	3.4	1.1	15	3.0	1.0	12	3.4	.1	2
Verbosity	4.7	1.0	15	3.7	.9	12	5.2	.3	2
Total dysfunctional parenting	3.6	.7	15	3.1	.8	12	4.5	1.0	2

P = rated by parent
T = rated by teacher

Appendix Z   Associations between Follow-up Child Behaviour Scores and Baseline Variables, and between Baseline Variables   (Ns = 22-29).

	CBCL T2	Child age	SED	Duration	BDI	GHQ	CBCL T1	DQ	PSI	CCQ	PCAM T	Discipline	Risk index	Close	Depend	Anxiety
Externalising behaviour T2	1.0	.3	-.1	.3	.1	.1	.3	-.2	-.2	-.2	-.3	.2	-.3	.1	.0	.1
Child age	.3	1.0	.2	.7**	.1	.4	-.2	-.5*	.2	.0	-.5**	.4*	.4	-.3	.0	.1
SE disadvantage	-.1	.2	1.0	.1	.2	.2	.1	-.4	.4	.2	-.2	.4*	.5**	-.1	-.1	.3
Duration of problem	.3	.7**	.1	1.0	.1	.2	-.1	-.3	.1	.0	-.2	.0	.2	-.1	.2	-.1
BDI	.1	.1	.2	.1	1.0	.8**	.1	.1	.5	-.3	.0	.1	.3	-.7**	-.4*	.5*
GHQ	.1	.4	.2	.2	.8**	1.0	-.1	-.3	.6	-.2	.0	.4*	.6**	-.6**	-.3	.4*
Externalising behaviour T1	.3	-.2	.1	-.1	.1	-.1	1.0	.1	.2	.2	.0	-.1	-.1	.2	-.3	.2
Developmental Quotient	-.2	-.5*	-.4	-.3	.1	-.3	.1	1.0	-.1	-.3	.2	-.2	-.3	.1	-.1	.0
Parenting Stress Index	-.2	.2	.4*	.1	.5**	.6**	.2	-.1	1.0	-.2	.0	.3	.5**	-.5**	-.5**	.4
Community Contacts	-.2	.0	.2	.0	-.3	-.2	.2	-.3	-.2	1.0	.2	-.3	-.2	.4*	.3	-.2
Parent-child AMT	-.3	-.5**	-.2	-.2	.0	.0	.0	.2	.0	.2	1.0	-.2	-.2	-.1	.2	-.2
Dysfunctional parenting	.2	.4*	.4*	.0	.1	.4*	-.1	-.2	.3	-.3	-.2	1.0	.3	-.3	-.2	.3
Risk index	-.3	.4	.5**	.1	.3	.6**	-.1	-.3	.5	-.2	-.2	.3	1.0	-.4	-.2	.3
Close	.1	-.3	-.1	-.1	-.7**	-.6**	.2	.1	-.5**	.4*	-.1	-.3	-.4	1.0	.4*	-.3
Depend	.0	-.0	-.1	.2	-.4*	-.3	-.3	-.1	-.5**	.3	.2	-.2	-.2	.4*	1.0	-.6**
Anxiety	.1	.1	.3	-.1	.5*	.4*	.2	.0	.4	-.2	-.2	.3	.3	-.3	-.6**	1.0

* $p < .05$, **$p < .01$

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Appendix AA   **Comparison of regression models with and without the interaction variable (attachment status x externalising child behaviour)**

	Sum of squares	DF	Mean Squares	F
Risk index + duration + child behaviour + attachment	982	4	245	3
(Risk index + duration + child behaviour + attachment) + interaction variable	404	1	404	6.6
Residual	921	15	61	

$F (1,15) = 4.54$

Appendix BB Stability of attachment groupings and dimensions

The stability of the Adult Attachment Scale dimensions and categories was examined by looking at whether individuals had changed category over the period of parent training, using Pearson correlations between the attachment dimensions at baseline and follow-up and by comparison of the means between baseline and follow-up for secure and insecure groups.

Twenty-four mothers had measures on Close, Depend and Anxiety in relationships at both timepoints. Three of these had omitted to complete the reverse side of the Adult Attachment Scale, and mean scores obtained from the questions they did complete on each dimension were attributed for these participants on the 6 questions involved (2/6 for Close, 3/6 for Depend and 1/6 for Anxiety in relationships). Table BB.1 summarises change in attachment style.

Table BB.1 Change in attachment style of 21 participants from baseline to follow-up

Attachment style		Baseline N	Follow-up N	Change to a different style
Secure		10	9	1 preoccupied
Insecure	Preoccupied	2	1	1 secure
	Dismissive	2	1	1 secure
	Fearful	7	3	2 secure
				2 preoccupied

Of 10 participants rated secure at time one who had attachment classification at time two, 9 still rated as being secure at time two and one had changed category to insecure (preoccupied). Of the 11 participants rated insecure at baseline, 7 remained insecure and 4 had changed to secure by follow-up. In terms of the subcategories, one of the two preoccupied participants changed category to secure (this participant had some attachment dimension scores attributed); one of the two dismissive participants changed category to secure (this participant had some attachment dimension scores attributed); two categorised as fearful changed category to secure. Within the insecure categories, two changed from fearful to preoccupied. This information is summarised in Table BB.1.

The difference in numbers who changed between secure and insecure categories in each group was not significant ($X^2 = 3.2$, p > .05). However it would

appear that, in accordance with the literature, the attachment status of individuals in the insecure group was more labile.

Pearson correlations between baseline and follow-up attachment dimensions.
Twenty-four participants had measures on Close, Depend and Anxiety in relationships at both timepoints (as described earlier). The dimension of Close at time one correlated at $r = .8$ with Close at time two and Anxiety in relationships at times one and two also correlated at $r = .8$ (each $p < .01$). The dimension of Depend showed no correlation between the measurements at both timepoints ($r = .02$). (For the secure group the correlation was moderate and positive, whereas for the insecure group the relationship was somewhat lower and negative. Pearson's $r = .5$ ($n = 10$) and $r = -.35$ ($n = 12$) respectively.)

Means of the dimensions at baseline and follow-up are shown in Table BB.2.
Table BB.2. Comparisons between attachment dimensions before and after parent training ($n = 24$)

Attachment dimension	Baseline mean (SD)	Follow-up mean (SD)	t	sig t 2-tailed
Close	21.3 (5.1)	20.8 (5.9)	.6	.6
Depend	16.8 (4.0)	18.3 (4.4)	-1.3	.2
Anxiety in relationships	16.9 (7.2)	15.7 (7.0)	1.2	.2

No difference between baseline and follow-up was found on any attachment dimension using paired t-tests. The mean for Close was slightly lower at follow-up than at baseline. Depend was higher and Anxiety a little lower.

It can be concluded that in this sample attachment status was reasonably stable between baseline and nine-month follow-up. This is in keeping with the majority of the literature. There were indications that Depend, probably the least intimate of the attachment dimensions, was less stable.

Appendix CC   **Relationships between baseline attachment dimensions, child behaviour and mental health, by secure and insecure group**

	Externalising child behaviour		BDI		GHQ	
	Secure (n = 12)	Insecure (n = 14)	Secure (n = 12)	Insecure (n = 15)	Secure (n = 11)	Insecure (n = 15)
Close	-.1	.5	-.1	-.8**	.1	-.6*
Depend	-.5	-.1	-.4	-.2	-.4	-.1
Anxiety in relationships	.1	.2	.4	-.03	.4	.1
BDI	.3	-.4				
GHQ	.5 (11)	-.6*				

*p <.05, **p< .01

The relationships in the secure group were in line with expectations, in that higher levels of children's externalising behaviours were associated with being less able to depend on those who are close, and with higher levels of mental health problems. There appear to be anomalies in the insecure group, where feelings of being more comfortable in the relationship are related to higher levels of children's externalising behaviour. Similarly, lower levels of mental health are associated with higher levels of children's externalising behaviours. Much stronger associations were found in the insecure group between feelings of being comfortable with closeness and levels of mental health.

(At $z = -1.95$, the difference between the groups in the relationship between child behaviour and GHQ was close to statistical significance.)