CHILDHOOD ONSET CONDUCT PROBLEMS: THE ROLE OF MOTHERS' INTERPERSONAL SCHEMAS AND THEIR RELATIONSHIP TO PARENTING BEHAVIOUR.

Joanne Potier de la Morandière

Doctorate in Clinical Psychology

University College London

2004

VOLUME 1

ProQuest Number: U641843

All rights reserved

INFORMATION TO ALL USERS
The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript
and there are missing pages, these will be noted. Also, if material had to be removed,
a note will indicate the deletion.

ProQuest U641843

Published by ProQuest LLC(2015). Copyright of the Dissertation is held by the Author.

All rights reserved.
This work is protected against unauthorized copying under Title 17, United States Code.
Microform Edition © ProQuest LLC.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

TABLE OF CONTENTS

	Page
ABSTRACT	1
ACKNOWLEDGEMENTS	2
CHAPTER 1: INTRODUCTION	3
1.1 Introduction	3
1.2 Childhood onset conduct problems	5
1.2.1 Definitions	5
1.2.2 Epidemiology	11
1.2.3 Short, medium and long term effects	15
1.3 Aetiological theories of conduct problems	18
1.3.1 Child characteristics	19
1.3.2 Family ecology	21
1.4 Parenting	24
1.5 Parenting, social learning theory and conduct problems	28
1.5.1 Social learning theory	28
1.5.2 Social learning theory: Interventions	31
1.5.3 Conclusions	34
1.6 Parenting, attachment theory and conduct problems	35
1.6.1 Attachment theory	35
1.6.2 Attachment theory and conduct problems	39
1.6.3 Summary	42
1.7 Parenting, cognitive theory and conduct problems	44
1.7.1 Cognitive theory	44

1.7.2 Cognitive theory and conduct problems 47

1.7.3 Summary 51

1.8 Interpersonal schema theory 54

1.8.1 Interpersonal schema theory 54

1.8.2 Interpersonal schema theory and conduct problems 58

1.9 Aims and rationale for the current study 62

1.9.1 Summary 62

1.9.2 Rationale for the current study 64

1.9.3 Research hypotheses 65

CHAPTER 2: METHOD 68

2.1 Overview 68

2.2 Ethics 68

2.3 Recruitment 68

2.3.1 Inclusion and exclusion criteria 69

2.3.2 Power analysis 70

2.3.3 Response rates 71

2.4 Description of participants 72

2.4.1 Demographic information 72

2.5 Procedure 76

2.6 Measures 77

2.6.1 Screening questionnaires 77

2.6.2 Self-report questionnaires 80

2.6.3 Parent-child interaction tasks 85

CHAPTER 3: RESULTS 90

3.1 Overview 90

3.2 Screening data 90

3.3 Preliminary analyses 91

3.3.1 Distributions 91

3.3.2 Relationships between variables 92

3.3.3 Covariates 93

3.3.4 Summary 97

3.4 Hypothesis 1: Parenting behaviour 97

3.4.1 Negativity 98

3.4.2 Warmth 99

3.4.3 Involvement and control 100

3.5 Hypothesis 2: Child-related schema content 100

3.6 Hypothesis 3: Mother-related schema content 103

3.7 Hypothesis 4: Schema repetition 105

3.8 Hypothesis 5: Relationship between schemas and parenting behaviour 106

3.9 Summary of results 107

CHAPTER 4: DISCUSSION 109

4.1 Overview 109

4.2 Main findings 109

4.2.1 Parenting behaviour 110

4.2.2 Child-related interpersonal schemas 114

4.2.3 Mother-related interpersonal schemas 119

4.2.4 Schema repetition 121

4.2.5 Relationship between interpersonal schemas and parenting behaviour 124

4.2.6 Summary 127

4.3 Limitations of the current study 128

4.3.1 Design and recruitment 128

4.3.2 Measurement of schemas 131

4.3.3 Measurement of parenting behaviour 133

4.4 Scientific and clinical implications 136

4.4.1 Implications for research in conduct problems 136

4.4.2 Clinical implications 140

4.5 Conclusions 144

REFERENCES 146

APPENDIX 1: Ethics committee approval letter 169

APPENDIX 2: Information letter to parents 171

APPENDIX 3: Parent and child information sheets and consent forms 173

APPENDIX 4: Screening questionnaires 179

APPENDIX 5: Self-report questionnaires 183

APPENDIX 6: Anagram task (task instructions and anagrams) 204

APPENDIX 7: Discussion task (instructions and prompts) 208

LIST OF TABLES

Table		Page
1	Mean age of children and mothers	72
2	Number of mothers (%) in each group according to ethnic group	73
3	Number of mothers (%) in each group according to marital status	73
4	Number of mothers (%) in each group according to qualifications	74
5	Number of mothers (%) and partners in each group according to occupational status	75
6	Normal, borderline and abnormal score ranges on the parent completed SDQ	78
7	Mean SDQ and CBCL subscale scores for each group	91
8	Within group correlations	94
9	Mean scores for each group (mothers) on the BSI and PSI	95
10	Mean scores for parenting variables	98
11	Analysis of covariance of maternal negativity	99
12	Mean scores for ISQ child responses, desirability and complementarity	101
13	Mean scores for ISQ mother responses, desirability and complementarity	103

LIST OF FIGURES

Figure		Page
1	Parent-child interactive cycle	46
2	Amended parent-child interactive cycle	61
3	Expected relationships between research variables	65

ABSTRACT

This study examines the relationship between mothers' interpersonal schemas and parenting behaviour in two groups of mother-son dyads, those with conduct problems and those without. Research has shown that implementation of, and parental engagement with, current interventions of choice for childhood onset conduct problems may be improved by the addition of a component that addresses parents' thoughts or beliefs (White, McNally & Cartwright-Hatton, 2003). However, little research has yet explored the nature and content of these beliefs and their relationship to parenting behaviours. Based on interpersonal schema theory (Safran, 1990a, 1990b; Safran & Segal, 1990) and findings from behavioural, attachment and cognitive research, this cross-sectional study investigates the role of mothers' interpersonal schemas in childhood onset conduct problems. A sample of 32 mothers and their 7 to 11 year old sons were recruited from primary schools on the basis of their responses to two screening questionnaires. Mothers were assessed by self-report questionnaire regarding their current mood state, level of parenting stress and interpersonal schemas, and mother-son dyads were observed engaging in two structured parent-child interaction tasks. Differences were found between the two groups in parenting warmth and negativity and in child-related interpersonal schemas. However, no relationship was found between schemas and parenting. The results are discussed in relation to the relevant literatures concerning interpersonal schemas, parent-child interaction, attachment and parental cognitions. Clinical and research implications of the findings are also discussed.

ACKNOWLEDGEMENTS

This research project would not have been possible without the help of the mothers and their sons who so generously gave their time to be involved in this study; their commitment to helping other families in difficulty never ceased to amaze me. My thanks also go to the head teachers, teachers and administrative staff of the participating primary schools in North Southwark, whose support for the participating mothers and sons made this study possible.

I am also enormously grateful to my two research supervisors, Crispin Day and Nancy Pistrang, whose encouragement, comments and all-round support made this research project possible. In particular I would like to thank Crispin Day; it was from his commitment to enhancing mental health provision for children and families with difficulties that this project was born.

Finally, I would like to thank all those who have supported me through clinical training, including my husband, Seamus, my family and friends. Without their love, patience, welcome distractions and humour this seemingly long road would have been longer and less easily navigable.

CHAPTER 1: INTRODUCTION

"Rather than be compelled to hold an ill child or adult who is antisocial, how much better to "hold" an infant well at the beginning."

(Winnicott, 1964, p.231).

1.1 Introduction

Aggression and frustration are very much a part of child life and are often the appropriate and healthy expression of the emotional conflicts that all children experience. However, if this aggression cannot be held or controlled within the context of a loving family environment and persists into adulthood, society is then compelled to hold and manage this behaviour, at much greater social and personal cost. Indeed, managing antisocial behaviour has not only become one of the most prominent social and political tasks of our time, but also one of the most significant challenges facing child mental health services. Parents are at the very heart of this task.

Conduct problems constitute the largest number of referrals per year to child and family services and parent training is currently one of the most effective interventions for conduct problems in young children. Most models of parent training predominantly use methods that emphasise the importance of changing parent behaviour. However, research suggests that a significant number of parents do not engage with, or benefit from, these programmes. As with developments in treatments for adult disorders, it has been proposed that parent training implementation and parental engagement may be improved by the addition of a component that addresses parents' thoughts,

ideas or beliefs. However, little is known about the content of these thoughts or their role in the development and maintenance of conduct problems.

The focus of most research to date in this area has been on parents' attributions about their child's behaviour and on their thoughts about themselves as parents. Given the interpersonal nature of conduct problems, and the growing body of research looking at the influence of attachment styles on parent-child relationships and child psychopathology, relatively little attention has been given to the kinds of thoughts that parents have about themselves in relation to others, and particularly their children. Still less is known about whether these interpersonal beliefs or schemas affect parenting practices. This study aims to examine whether mothers of children with conduct problems and mothers of children without significant problems have different interpersonal schemas, which affect how they interact with their children.

This chapter introduces the thesis by discussing issues relating to the definition and measurement of conduct problems. Epidemiology and short, medium and long-term effects of conduct problems will then be reviewed and relevant issues highlighted. Aetiological theories will then be reviewed with a specific focus on the role of parents in the development and maintenance of conduct problems. Given the emphasis on parenting in this chapter, the role of parenting in children's development and social integration will then be discussed. This will provide a background against which the three main theories of the role of parenting in conduct problems will be reviewed, that is,

social learning theory, attachment theory and cognitive theory. These sections will also review the interventions relating to these theories in the area of conduct problems. Finally, the theory of interpersonal schemas and its potential contribution to understanding conduct problems will be introduced and a rationale for the current study presented.

1.2 Childhood onset conduct problems

1.2.1 Definitions

Conduct disorder is just one of a plethora of terms used to refer to a heterogeneous class of antisocial and aggressive behaviours shown in childhood and adolescence. A variety of synonyms have also been used to refer to these broad patterns of behaviour, including "conduct problems" (Carr, 1999; Hill, 2002), "antisocial child behaviour" (Patterson & Stouthamer-Loeber, 1984; Scott, 2001), "externalising behaviour problems" (Greenberg, Speltz, Deklyen & Endriga, 1991), and "disruptive behaviour problems" (Waters, Posada, Crowell & Lay, 1993).

This heterogeneity of terms reflects not only the wide range of behaviours thought to comprise conduct disorder, but also reflects a methodological debate about how best to characterise these behaviour patterns for enhanced research and clinical utility. The tenth revision of the *International Classification of Mental and Behavioural Disorders* (ICD-10: World Health Organization, 1992) defines conduct disorders as disorders which are characterized by "a repetitive and persistent pattern of dissocial, aggressive, or defiant conduct" (WHO, 1992, p.266). Within the broad category of

conduct disorders are a number of subtypes of disorder, including conduct disorder confined to the family context, unsocialized conduct disorder, socialized conduct disorder and oppositional defiant disorder.

Although the ICD-10 is widely used in clinical practice, particularly in Europe, the most commonly used diagnostic system in research relating to conduct disorders is the *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition (DSM-IV: American Psychiatric Association, 1994). According to this classification system, the core feature of conduct disorder is the violation of major age-appropriate societal norms or rules, causing significant impairments in functioning. Specific behaviours include aggression to people and animals, destruction of property, serious violation of rules and deceitfulness or theft (American Psychiatric Association, 1994). Oppositional defiant disorder is defined as a pattern of negativistic, hostile, and defiant behaviour, including behaviours such as arguing with adults, non-compliance and spitefulness (American Psychiatric Association, 1994).

There are many critics of the diagnostic approach to the study of conduct problems. For example, Lahey, Waldman and McBurnett (1999) treat antisocial behaviour as a continuous variable, with the diagnosis of conduct disorder being at the extreme end of the continuum of antisocial behaviour. They argue that the cut-off point between conduct disorder and "normal antisocial behaviour" reflects a convention rather than a "dichotomy in nature" (p.670).

The separation of conduct disorder in the DSM-IV into the two apparently distinct categories of oppositional defiant disorder (ODD) and conduct disorder (CD) has also fuelled debate (Hill, 2002). For example, it is as yet not clear whether ODD is a developmental precursor to CD or a distinct profile with a different pathway and associated, less serious, outcomes (Burke, Loeber & Birmaher, 2002; Keenan, Shaw, Delliquadri, Giovannelli & Walsh, 1998). Some writers argue that CD is a later and more severe manifestation of its developmental precursor, ODD (see Angold, Costello & Erkanli, 1999), leading Loeber and colleagues to propose that ODD and CD be replaced by three categories, ordered in time and severity, which they call "modified oppositional disorder", "intermediate CD" and "advanced CD" (Loeber, Keenan, Lahey, Green & Thomas, 1993). However, other studies have found that some individuals manifest CD in adolescence without a previous history of antisocial behaviour (see Angold et al., 1999). Angold and colleagues conclude that ODD and CD are best seen as distinct conditions, and encourage others to view diagnostic criteria as "hypotheses" to be examined and tested.

Developing a specific and valid behavioural profile for conduct problems is clearly an enormously complex task, further complicated by its high comorbidity with other emotional and behavioural disorders, most notably depression, substance abuse and attention-deficit hyperactivity disorder (ADHD) (Angold et al., 1999; Hill, 2002; Southam-Gerow & Kendall, 1997). For example, studies have found a particularly high rate of attention deficit and hyperactivity symptoms co-occurring with conduct problems (Angold et

al., 1999). Rates in community populations are thought to be as high as 43% (Carr, 1999).

What is not known is whether this apparent comorbidity reflects a true co-occurrence of distinctive disease entities, whether the co-occurring behaviours are in fact behaviours of the same syndrome, or whether it reflects some overlap in the terms used to describe symptoms (Angold et al., 1999; Greenberg, Speltz & Deklyen, 1993). For example, a single behavioural problem, such as constantly leaving one's seat in the classroom when told to sit still, could serve as the basis for a positive coding on either oppositional defiant disorder (if the behaviour is construed as failure to comply with a request) or ADHD (Angold et al., 1999). However, as Angold and colleagues argue, this explanation would not account for comorbidity between conduct disorder and, for example, depression. They therefore reject the hypothesis that comorbidity is simply a methodological artefact. They conclude that the major benefit of research looking at comorbidity over the past decade "has been its demonstration that we are dealing with real phenomena" (Angold et al., 1999, p.70).

Some attempts have also been made to add specificity to the broad diagnosis of conduct disorder by distinguishing subtypes based on age of onset of difficulties. The DSM-IV separates conduct disorders into two distinct subgroups, each with their own risk factors, developmental course and outcome: childhood onset and adolescent onset. As this study will focus on early onset conduct problems, research findings relating to late onset

conduct problems will not be covered here. For an excellent review, see Hill (2002).

According to Patterson, Debaryshe and Ramsey (1989), "early starters" are those who develop oppositional behaviours before the age of eleven and who show an increasing diversity in their disruptive behaviours as they get older, most notably showing an increase in aggression, and often moving from overt to more covert behaviours, such as lying and stealing (Lahey et al., 1999). Early onset conduct problems have also been called "life-course-persistent" (Moffitt, 1993) and are associated with a more chronic developmental pathway and an associated range of negative outcomes (see below). Children with earlier ages of onset of antisocial behaviour are also more likely to meet diagnostic criteria for ADHD than those with later ages of onset (Lahey et al., 1999; Loeber, Burke, Lahey, Winters & Zera, 2000). Late onset conduct problems, also called "adolescent limited" (Moffitt, 1993), by contrast, are thought to be less severe, stable and persistent, and are thought to arise as the result of social interactions with delinquent peers (Hill, 2002). This distinction appears to have good predictive validity in terms of short, medium and long-term effects (reviewed more fully in section 1.2.3 below).

Whilst there is still much debate about how to define, and subsequently measure, conduct problems, most researchers seem to be arguing for increased specificity for understanding antisocial behaviour. For example, Kazdin (1987) argues that using global definitions may mask specific

subtypes with different patterns of dysfunction. This is a view shared by attachment researchers who have similarly argued that broad diagnostic labels are of less clinical use than analysis of relationship-based patterns that may have different prognoses and treatment needs (Greenberg et al., 1991). Kazdin argues that increased specificity in the focus of conduct problems permits the development of what he refers to as "mini-theories" about the particular problem area (Kazdin, 1987). These theories account for "specific facets of conduct disorder rather than attempt a comprehensive explanation of how the full range of dysfunctions has emerged" (Kazdin, 1987, p.116). He gives the example of Patterson's coercion theory (Patterson, 1982), which will be reviewed in more detail later.

Kazdin (1987) also argues that broad diagnoses tend to focus on problems as being specific to the child, a particularly unhelpful starting point for conduct problems which, he argues, need to be viewed in the context of alternative systems, and in particular the family system. Herbert (1998) goes further to say that, given that the core construct of conduct problems is thought to be violation of social rules and norms, any definition must take into account the social and subjective judgements about these norms and rules and about what exactly constitutes a violation.

In summary, there is still much debate about how to both define and measure conduct problems. At present, the two most reliable indicators that help to distinguish between different subtypes of conduct disorder, each with different aetiologies and developmental courses, are age of onset and

presence or absence of other comorbid difficulties. However, it is clear that there is still much work to be done in specifying even further different aspects of what is now defined as a unified disorder but which may well in the future be separated into different disorders, for example, based on the different behavioural profiles associated with aggression and delinquency.

Acknowledging these debates, this study will use the term "conduct problems" to refer to antisocial behaviours found in community populations on screening measures in the absence of a formal diagnosis of conduct disorder (Carr, 1999; Hill, 2002; see Scott, 2001). Indeed, epidemiological studies have shown that the majority of children with mental health problems (and their parents/carers) will not have sought help for their difficulties and so will not have received a formal diagnosis (Meltzer, Gatward, Goodman & Ford, 2000). Whilst broader definitions inevitably lead to a loss of specificity, they take account of severity, burden and impact on functioning, that is those aspects of child behaviour problems that are in fact the best predictors of help-seeking (Goodman, 1999). This terminology is also used to reflect the conceptual and methodological focus of this study on what Achenbach has broadly referred to as "externalizing" problems, which include aggression and delinquency (Achenbach, 1991).

1.2.2 Epidemiology

The still evolving and diverse understandings of conduct problems in the research field are reflected in the diverse approaches to, and findings from, epidemiological studies. Prevalence rates of conduct and oppositional

disorders in childhood have been estimated at between four and 14%, depending upon the particular population sampled and precise diagnostic criteria adopted (Angold et al., 1999; Cohen et al., 1993). According to a household survey conducted in the UK, approximately five per cent of children and adolescents between the ages of five and 15 years have conduct disorder (Meltzer et al., 2000). Prevalence estimates increase when certain risk factors, such as low socio-economic status, are considered (Loeber et al., 2000; Meltzer et al., 2000).

Although prevalence rates vary widely, epidemiological data on conduct problems are nevertheless crucial both for estimating service needs and also for shedding light on aetiological and protective factors (Achenbach, Dumenci & Rescorla, 2003). The changes in prevalence rates over time and across different geographical regions also highlight the major influence of social changes and factors in the prevalence of conduct problems. For example, Achenbach and colleagues, in a major US epidemiological study of behaviour problems, studied rates of change from 1976 to 1999 (Achenbach et al., 2003). They illustrate how changes in prevalence across the years reflect not only changes in the rates of particular disorders, but also changes in diagnostic criteria, mental health services, record keeping and also secular trends. They argue that their main finding that American children's functioning is not steadily worsening could be accounted for by all of the above factors, including improvements in childrearing conditions due to better economic conditions, lower unemployment and less crime (Achenbach et al., 2003).

The variation in prevalence estimates may also be a reflection of inter-gender effects. Although both ODD and CD are both relatively common diagnoses in girls, particularly in clinical settings (Loeber et al., 2000), if we look at prevalence within genders, from about four years of age, boys seem to be more likely than girls to develop both aggressive and non-aggressive behaviour problems (Lahey et al., 1999). Boys are also more likely to develop conduct problems in the pre-school years, which are then more likely to persist into adolescence and adulthood.

Many theories have been proposed to account for this gender difference, including differences between the genders in communication skills and in the development of guilt and empathy (Lahey et al., 1999), and differences between the genders in susceptibility to low maternal responsiveness, with boys being more susceptible than girls (Shaw, Winslow, Owens, Vondra, Cohn & Bell, 1998). There is also some evidence that parents respond differently to the same temperamental patterns in girls and boys (Lahey et al., 1999). The observed differences in the development of conduct problems in girls and boys has led Lahey and colleagues to suggest that they be defined differently for the two genders.

However, although the prevalence of conduct problems among boys when compared to girls has been estimated as a ratio of four to one (Loeber et al., 2000; Southam-Gerow & Kendall, 1997), this has been queried on the basis that different symptom clusters, such as alcohol abuse, may predict conduct

problem-type outcomes in girls, creating the possibility that a proportion of girls are being misdiagnosed (Zoccolillo & Rogers, 1991). Girls' tendency towards verbal aggression rather than physical aggression means that they may not fit diagnostic criteria even though their levels of impairment may be significant (Zoccolillo & Rogers, 1991). This clearly has implications for epidemiological studies and should encourage us to view the prevalence estimates with caution.

Knowledge of the variations and occurrences of conduct problems in different areas is clearly most important not only in terms of understanding these problems, but also in terms of service planning and delivery (Achenbach et al., 2003; Loeber et al., 2000; National Child and Adolescent Mental Health Service Mapping Exercise, DoH 2002). Childhood onset conduct problems in particular, according to Loeber and colleagues, may be concentrated in urban areas, and in particular in deprived inner-city neighbourhoods (Loeber et al., 2000; Meltzer et al., 2000; National Child and Adolescent Mental Health Service Mapping Exercise, DoH 2002).

Indeed, despite the difficulties in ascertaining precise figures regarding conduct problems, what is clear is that they constitute the largest number of referrals per year to all child and family services, ranging from a third to a half of all referrals (Carr, 1999; Hill, 2002; Loeber et al., 2000; Webster-Stratton, 1991). Whilst epidemiological data can tell us about levels of difficulties in different service catchment areas, it also needs to tell us about the costs, both personal and social, likely to be incurred in those areas as a result of

these difficulties. As Scott (2001) has argued, to plan services effectively, information is needed on the economic impact of disorders, both in the short and particularly in the long term, the kinds of different agencies involved, and how the costs might vary according to the severity of problems.

1.2.3 Short, medium and long term effects

Conduct problems have been shown to lead to a range of negative individual, peer, family and social outcomes in childhood, adolescence and often continuing into adulthood. In childhood, oppositional and aggressive behaviours cause significant distress in children and their families leading to an increased risk of rejection by peers and abuse by parents (Webster-Stratton, 1991) and social and educational failure (Burke et al., 2002). Children with early onset conduct problems most notably develop problematic relationships with significant members of their network, such as peers, parents and authority figures such as teachers (Carr, 1999).

As the child develops, these problematic relationships widen to include conflict-laden relationships with members of the wider community, often resulting from theft or vandalism (Carr, 1999). These children are also more likely to become adults who enter into violent marriages, therefore increasing the risk of having children themselves who develop conduct problems (Carr, 1999; Moffitt, Caspi, Harrington & Milne, 2002).

There is also growing evidence of the stability of conduct problems (Landy & Menna, 2001; Scott, 2001; Shaw et al., 1998). Early onset conduct problems

are more likely to persist into adolescence and adulthood, particularly in girls (Loeber et al., 2000). Longitudinal studies suggest that 50% of all those who develop early externalising behaviour problems continue to show these difficulties through school and into early adolescence (Shaw et al., 1998). More alarmingly, a retrospective study of juvenile offenders' childhoods has shown that 90% satisfied diagnostic criteria for conduct disorders (Scott, 2001). Recent findings from the follow-up of the Dunedin Multidisciplinary Health and Development Study cohort (Moffitt et al., 2002) suggest that early onset, compared to late onset, conduct problems in boys are associated with a range of negative outcomes, from higher rates of self-reported violent crimes and convictions for violent offences, to more significant work-related and interpersonal difficulties. According to Webster-Stratton (1991) a high proportion of children with these difficulties "remain circulating through the revolving doors of mental health agencies and criminal justice systems" (p.1048).

What also seems to be clear from the literature is that children with a combination of conduct problems and, in particular, hyperactivity have more stable, varied and severe antisocial problems (Angold et al., 1999; Loeber et al., 2000). According to Southam-Gerow and Kendall (1997), the combined disorder "is marked by the amalgamation of worst of both worlds: academic problems, more severe symptoms, greater levels of parental psychopathology, higher rates of peer rejection, and more familial disadvantages" (p.388). In the long term, the most serious outcomes of

these difficulties are antisocial personality disorder and psychopathy (Loeber et al., 2000).

In the medium and long term, the enormous social burden of conduct problems has been well documented. They are the most costly for public services, both in terms of visible damage to property and also in terms of the more diffuse and less obvious disruptions to normal patterns of living (Carr, 1999; Greenberg et al., 1991; Shaw et al., 1998). In their study of the financial cost of social exclusion, where three groups of children (no problem, conduct problems, and conduct disorders) were followed up over a 10-year period, Scott, Knapp, Henderson and Maughan (2001) estimated that the conduct disorder group cost ten times more than the no problems group and over three times more than the conduct problems group. Crime was the most costly area in all the groups, followed by education, foster and residential care, and state benefits for the two conduct groups. Gender and socio-economic status were systematically related to costs, with males and those from families of lower socio-economic status incurring higher costs. Interestingly, the study found that health costs were low relative to criminal justice, care, education and state benefit costs, as only a small proportion of the children reached the mental health services (Scott et al., 2001). When and if they do reach the attention of mental health services, conduct disorders have been found to be remarkably resistant to change (Kazdin, 1995). Where there are effective interventions, mental health services often lack the resources to oversee their implementation (Scott et al., 2001).

Although Scott et al.'s (2001) study does not elaborate on this point, the greater prevalence of conduct problems in the general population means that they are likely to be more costly than conduct disorders. However, interventions with children with conduct problems, before they reach the threshold for diagnosis of conduct disorder, are theoretically more likely to produce change. At present, such interventions have been advocated, such as preventive parent training for at-risk children (Southam-Gerow & Kendall, 1997), but have not as yet been developed. The devastating effects of conduct problems illustrate the importance of further enhancing our understanding of how they develop and are maintained, and in particular a more comprehensive understanding of risk and resilience factors (Thompson & Raikes, 2003), so that effective treatments can be developed and implemented to alleviate these effects both in the short and long term.

1.3 Aetiological theories of conduct problems

There is general consensus that no single factor or theory can fully account for the development of conduct problems, and that these problems are the expression of a complex interaction between genes and environment, and between risk and protective factors (Burke et al., 2002; Carr, 1999; Dadds, 1987; Hill, 2002; Lahey et al., 1999; Rutter, 1989).

Aetiological theories of conduct problems can be separated into those that locate the problem in the child and those that locate the difficulties in the parent or family ecology.

1.3.1 Child characteristics

Research has identified many potential risk factors that have been implicated in the development of conduct problems. For example, although predominantly defined in terms of behaviours, conduct disorder, as defined in DSM-IV, is presumed to be "symptomatic of an underlying dysfunction" (American Psychiatric Association, 1994, p.88). A variety of child characteristics have been proposed as causally linked to conduct problems (see Burke et al., 2002 and Hill, 2002 for reviews). One of the most researched factors is child temperament (see Lahey et al., 1999; Shaw et al., 1998). For example, Lahey and colleagues (1999), propose that conduct problems or antisocial behaviour are the result of a single underlying latent construct, which they refer to as "antisocial propensity" (p.671). They argue that for children with earlier ages of onset of antisocial behaviour, antisocial propensity is the result of genetically inherited temperament and cognitive ability and their transactions with the social environment over the course of development. For example, they propose that the temperament type that is most strongly linked to antisocial behaviour is what they refer to as "oppositional temperament" (p.672). They go further to say that the symptoms of ODD (as defined in the DSM-IV) are a "dimension of temperament that drives the early development of antisocial behaviour" (p.672).

However, there is also a group of children who develop conduct problems in early childhood who later outgrow or desist from antisocial behaviour in adolescence and adulthood (Lahey et al., 1999; Loeber et al., 2000). Indeed

this issue of continuity-discontinuity is central to the field of developmental psychopathology. Some research suggests that early onset and continuing conduct problems can be differentiated from those that decrease in adolescence by the frequency and severity of early symptoms and the co-occurrence of hyperactivity (Moffitt et al., 2002). However, the findings from the follow-up of the Dunedin longitudinal study (Moffitt et al., 2002) suggest that the group of males initially defined as a "recovery" group in adolescence, although showing a decline in antisocial behaviour at 26 year follow-up, were actually found to have increased rates of internalising or emotional problems.

Much is still to be learned about the precise factors that may help the children who do not develop into antisocial adolescents and adults both desist from antisocial behaviour and, as Moffitt et al.'s (2002) study suggests, not develop other forms of psychopathology. Also, very little is known about resilience factors and natural curative factors. This is in part due to the relative lack of research looking at such factors in the area of conduct problems, and may also be due to the widely held view that risk and resilience are "double-edged constructs" (Luthar & Zelazo, 2003, p.513); therefore, if low IQ is a risk factor, then high IQ becomes a resilience factor (Luthar & Zelazo, 2003). There appear to be several problems with this conceptualisation of risk and resilience. The first is that risk and resilience are likely to have a much more complex relationship with one another, and what may be a resilience factor for one child or family, may be a risk factor for another (Stouthamer-Loeber, Loeber, Wei, Farrington & Wilkstrom, 2002). The second problem is that the very term resilience suggests that it is a

personality characteristic, rather than a process that occurs in the systems in which the child develops (Luthar & Zelazo, 2003). One of the obvious benefits of studying resilience processes is that interventions, which may not be successful in reducing risk factors, could focus instead on strengthening what Stouthamer-Loeber and colleagues refer to as "promotive" effects (Stouthamer-Loeber et al., 2002). However, research in this area in conduct problems is still in its infancy.

Whilst child characteristics clearly play an important role in the development of conduct problems, the environment with which these factors interact over the course of development is also very important. Moreover, the interpersonal and social consequences of conduct problems have led to an expansion of focus away from viewing conduct problems as problems of the individual child, to viewing them in the context of broader systems, particularly that of the family (Kazdin, 1987). Following Greenberg and colleagues (1993) the broad term *family ecology* will be used to refer to the diverse but seemingly related group of parent and community factors that may affect the family's capacity to provide optimal care (Greenberg et al., 1993).

1.3.2 Family ecology

Although many aspects of family ecology have been related to early onset conduct problems, several factors emerge more clearly than others. These include low socio-economic status (Loeber et al., 2000; Wilkstrom & Loeber, 2000), single parenthood (Webster-Stratton & Hammond, 1990), child

exposure to marital conflict and aggression (Webster-Stratton & Hammond, 1999), maternal depression and stress (Dadds, 1987; Dix, 1991; Krech & Johnston, 1992; Patterson, Dishion & Chamberlain, 1993), and, more recently, mothers' attachment status (Greenberg et al., 1993).

Although many family ecology variables have been implicated in the development and maintenance of conduct problems, what is less clearly known is the specific path by which family ecology affects conduct problems (Dadds, 1987; Greenberg et al., 1993). Two main models have been proposed. In the first, family ecology factors have a direct influence on conduct problems. For example, Webster-Stratton and Hammond (1999) showed that a negative marital conflict management style has a direct link with conduct problems. However, they also showed that this relationship was in part mediated by both mothers' and fathers' critical parenting and low emotional responsivity, thereby supporting both direct and indirect models.

In the second model, the relationship between family ecology variables and early onset conduct problems is mediated by the impact of these variables on parenting practices and parent-child interactions, as shown in part in Webster-Stratton and Hammond's study above (Dadds, 1987; Deklyen, 1996; Lahey et al., 1999; Morgan, Robinson & Aldridge, 2002; Webster-Stratton & Hammond, 1999). Dadds gives the example of marital separation, citing evidence that suggests that deterioration in children's behaviour following marital discord is related to observed changes in mothers' discipline practices rather than the separation *per se* (Dadds, 1987). Similarly,

according to Patterson's coercive hypothesis, maternal distress and family adversity are mediated by their impact on parenting practices, which promote disruptive behaviour (Patterson, Reid & Dishion, 1992). The effects of socieconomic disadvantage on the development of conduct problems in particular has been shown to be mediated by parenting behaviours, predominantly affecting parents' ability to monitor their children effectively and respond to them appropriately (Lahey et al., 1999).

The relationship between maternal depression and stress and child conduct problems is a more complex one, and is likely to comprise both indirect and direct effects (Dadds, 1987). Some writers have argued that maternal depression is causally linked to conduct problems. For example, children of depressed parents are at higher risk of having depression, anxiety and what have been referred to as disruptive behaviour disorders (Angold et al., 1999). It has been suggested that this is the result of genetic transmission (Graham, 1998). However, other writers argue that the relationship between maternal depression, stress and conduct problems is mediated by their effect on parental perceptions and attributions of child behaviour and subsequent practices (Cornah, Sonuga-Barke, Stevenson & Thompson, 2003; Dadds, 1987; Dix, 1991; Krech & Johnston, 1992; Patterson et al., 1993). For example, Dix suggests that intraparental characteristics, such as depression, and contextual variables, such as stress, affect not only how parents perceive their child's behaviour, but also how they respond to their child (Dix, 1991; Krech & Johnston, 1992). Depressed mothers have been shown to have low thresholds for responding with harsh and coercive parenting to

oppositional child behaviours (Lahey et al., 1999). These parenting styles are, in turn, more likely to encourage rather than discourage oppositional child behaviours. According to Patterson and colleagues, maternal depression may also bias maternal reporting of child behaviours, in that they attend more to the negative aspects of their child's behaviour (Patterson et al., 1993).

Although there are wide individual differences in the role of biological and environmental conditions that may be causally linked to conduct problems, according to Dadds (1987), "the most likely contender for the role of a central, common causal variable is the interactions of the child with relevant caregivers often being characterized by aggressive coercive behaviours" (p. 352). Indeed, quality of parenting and of parent-child interactions seem to stand out in the research literature as important points of influence on the development and maintenance of conduct problems (Burke et al., 2002; Greenberg et al., 1991; Patterson, 1982, 1986; Webster-Stratton, 1991). According to Lahey and colleagues (1999), parenting is an important factor because it plays a central role in the "developmental transformation of predisposition into antisocial behaviour" (p.675).

1.4 Parenting

According to Schaffer (1996), "it is widely assumed that parenting influences children's development" (p.213). However, the nature of this influence has been very difficult to define and measure, and it continues to challenge researchers (Sigel, 1985). Early models of parenting, which assumed either

that parents' task was to allow their children's innate potential to unfold, or conversely to mould them like clay into whatever shape they chose, have long since been rejected as too simplistic (Schaffer, 1996). Similarly, Freud's conflict model of parenting, although still influential, has been superseded by what has been described as the "mutuality model". According to this model, mutual adaptation between parent and child guides their interactions, with the child, born pre-adapted for social interaction, as an active participant in these exchanges (Schaffer, 1996).

Parenting does not occur in a vacuum but in the context of wider systems, such as the family network and wider social, political, economic and cultural systems. The effect that parents have are mediated by these systems and other factors, including characteristics of the child and of the social and physical environment in which development occurs (Schaffer, 1996). Within these systems, it has been suggested that parenting is concerned principally with ensuring the survival of children, with ensuring their economic welfare and enabling them to develop the more complex skills that bring about individual self-fulfilment (Schaffer, 1996).

According to Schaffer (1996), parents bring to this task certain attributes that interact with child and contextual characteristics to determine how they parent their children. He separates these into universal attributes, such as innate or hard-wired attachment processes, culture-specific attributes, and finally individual attributes. These individual attributes comprise emotional, behavioural and cognitive elements, all of which combine to determine

parenting style. According to socialization researchers, it is parenting style, as the expression of all of the above elements, that is the principal mechanism through which children are inducted into their social and cultural environments. According to Maccoby (1992), one of the main roles of parents is to socialize their children so as to enable them to function adequately in the social groups in which they later choose to live. Adequate functioning is defined as: firstly, avoiding "deviant behaviour"; secondly, working; thirdly, forming and sustaining close relationships; and finally, being able to rear children (Maccoby, 1992).

According to socialization and parenting researchers, the goal of adequate functioning is achieved chiefly through good enough parenting. However, what good enough parenting is and how to measure it has been the cause of much debate. Perhaps the most influential conceptualisation of adequate parenting, from a socialization point of view, is that offered by Baumrind (Baumrind, 1973 – cited in Maccoby, 1992). In Baumrind's typology, the "authoritative" style of parenting is the most optimal style, as compared to authoritarian, permissive, and rejecting-neglecting styles. The authoritative style involves a combination of firmness, warmth and attentive responsiveness to children's needs, all of which requires a degree of negotiation, and sometimes confrontation, with children (Maccoby, 1992). Furthermore, authoritative parenting helps to induct children into what Maccoby refers to as "a system of reciprocity" (Maccoby, 1992, p.1013). This system helps children to acquire the necessary behavioural, cognitive and emotional skills to form reciprocal relationships with others outside the family.

Although adequate parenting clearly demands the competent development, use and transmission of a set of skills, these skills are learned and imparted in the context of what Dumas and LaFreniere (1995) refer to as a "transactional" relationship between parent and child, that is the mutual exchanges referred to above. "Transactional" refers to the fact that patterns of interaction developed in the past are likely to influence current interactions (Dumas & LaFreniere, 1995). Thus relationships develop not only in the context of proximal and distal external or environmental stressors, such as socio-economic disadvantage, maternal distress, and marital distress, as outlined above, but also proximal and distal internal or relationship stressors unique to that relationship. For example, in terms of proximal internal factors, Dumas (1986) found that mothers were more likely to respond in an aversive manner to their children if they had experienced a large number of aversive contacts with others in the previous 24 hours (Dumas, 1996). The quality of a particular interaction will also depend on the "interactional history that the child and mother have acquired over the years" or rather "the repertoire of responses they have acquired as a function of living together, that is, on their *relationship"* (Dumas & LaFreniere, 1995, p.10).

The next three sections aim to evaluate parenting theories and interventions for conduct problems with a view to how well they account for these different facets of parenting and parent-child interactions. They will review in particular the three main theories brought to the subject of parenting and its role in the development and maintenance of conduct problems: social learning theory, which focuses largely on the behavioural or "skills" aspect of

parenting, attachment theory, which focuses on the more affective aspects of parent-child relationships, and cognitive theory, which focuses on the kinds of functional or dysfunctional cognitive processes that contribute to the development and maintenance of conduct problems.

1.5 Parenting, social learning theory and conduct problems

1.5.1 Social Learning Theory

It has been well documented that parents of children with conduct problems provide environments that seem to promote the learning of aggressive and oppositional behaviours. From a social learning theory perspective, two key processes are thought to play a significant part in the development and maintenance of conduct problems, either through observing similar behaviour in their parents (modelling theory), or through inadvertent contingent reinforcement of hostile behaviour (coercive family process theory).

Modelling theory provides an explanatory framework for the well established finding of the intergenerational transmission of conduct problems and suggests that this can be accounted for by a process of imitation of modelling within the home (Bandura & Walters, 1959). Coercive process theory, on the other hand, is based on reinforcement schedules set up in the home between parents and their children. In his seminal work *Coercive Family Process* (1982), Patterson found that parents of antisocial children were less likely to monitor their children's activities, more likely to be more harsh or critical in their use of discipline, and less likely to notice and therefore reinforce positive behaviours. When parents did respond to their children, this was more

related to their own mood state than to any characteristic of the child's behaviour.

Patterson's theory provides an account not only of how aggressive behaviours within families develop, but also how they are maintained over time. He describes two parental processes that contribute to this cycle. Firstly, negative family interactions are increased when parents ignore positive behaviour emitted by their children, whilst focussing on and overreacting to negative behaviours. Secondly, according to Patterson's theory, as the confrontations with their children become increasingly hostile and aversive, the parents' response is to withdraw from these confrontations. This has the effect of not only negatively reinforcing the parents, but also of reinforcing the child for becoming increasingly hostile. This process of learning continues, culminating in a cycle of escalating hostility, withdrawal and continuing reinforcement for negative behaviours, a process referred to by Patterson (1980) as a "negative reinforcement trap". When the child takes this learning into their peer relations, they then experience rejection, which culminates in school failure and ultimately membership of a deviant peer group (Patterson, 1982, 1992).

Patterson's theory has received much empirical support, too numerous to cover in detail here. For example, many researchers have shown that parents of children with conduct problems are more likely to be more harsh or critical in their use of discipline and less likely to notice positive behaviours (Patterson & Stouthamer-Loeber, 1984; Webster-Stratton, 1985). Mothers of

children with conduct problems have also been shown to emit higher frequencies of commands to their children than mothers of non-referred children, and these are often delivered in a hostile or threatening manner (Dadds, 1987). Observational studies have shown that maternal criticism is closely associated with an increased incidence of behaviour disorders (see Hudson & Rapee, 2001).

What is less clear is how maternal control relates to conduct problems. Gardner (1989), for example, found that mothers of children with conduct problems were eight times more likely to give in to their child's non-compliance than mothers of children without conduct problems. Whilst there is much support for the hypothesis that parents are more likely to withdraw in the face of conflict with their children, and, in observational studies, demonstrate a less controlling style of interaction with their children than mothers of non-clinical children (Mills & Rubin, 1998), there is also some evidence that mothers of oppositional children are overinvolved in their interactions with their children (Hudson & Rapee, 2001). It is conceivable that, as Patterson's theory suggests, both processes are involved in the development and maintenance of conduct problems, with high levels of overinvolvement perhaps being the precursor to later withdrawal when parents begin to perceive their attempts at control as futile.

There is also a debate in the literature as to what the direction of effects is in this coercive process. For example, it is not clear whether in fact it is the child's behaviour or temperament that elicits coercive parenting (Lahey et al.,

1999), and also whether or not coercive parenting behaviour is specific to conduct problems or more generally to other forms of child psychopathology (Burke et al., 2002; Hudson & Rapee, 2001). Despite these questions, Hill (2002) concludes that there is currently good evidence for the role of coercive parenting in the maintenance and possibly development of conduct problems. It is clear that longitudinal studies are needed to unravel the precise direction of effects.

1.5.2 Social Learning Theory: Interventions

A range of parent training programmes have been developed based on social learning theories of child conduct problems, such as that advocated by Patterson, and the evidence base suggests that for preadolescent children such programmes are currently among the most effective treatments for child conduct problems (Brestan & Eyberg, 1998; Kazdin & Weisz, 1998).

Over the past thirty years, a wide range of programmes have been developed, too numerous to review in detail here. These include Forehand and McMahon's "Helping the non-compliant child" (1981), the Mellow Parenting Programme (Puckering, Rogers, Mills, Cox & Mattsson-Graf, 1994), and Webster-Stratton's (1994) Group Discussion Videotape Modelling programme. All are based on social learning theory principles, both in form and content, and employ behavioural techniques, such as relating oppositional behaviour to its antecedents and consequences, for reducing antisocial behaviours. Parents are also taught how to encourage alternative more desirable behaviour.

The most successful programmes, according to Scott (2001), are those that address parents' feelings and beliefs as well as behaviours. For example, Puckering et al.'s (1994) Mellow Parenting Programme begins with a two-hour session exploring parents' concerns before moving on to useful behavioural strategies. Outcomes from this programme were positive both in terms of positive change and low attrition rates (Puckering et al., 1994). Similarly, Webster-Stratton and Hammond (1997) have reported positive outcomes from the Webster-Stratton parent training programme that stresses the need to focus on affect before behaviour change. Reviews of these programmes show that two thirds of children show significant improvements in their behaviour (Webster-Stratton, 1985). Additional benefits of parent training appear to be improvement in the behaviour of siblings and improvements in maternal mental health, particularly for depressed mothers (Kazdin, 1995).

However, it seems that there are also many parents and children, possibly as many as a third of all families, not benefiting from these approaches (Hartman, Stage & Webster-Stratton, 2003; Scott, 2001; White, McNally & Cartwright-Hatton, 2003). According to Carr, positive outcome rates for all routine treatments, including parent training, range from only 20 to 40% (Carr, 1999). Although statistically significant improvements are often found in studies of parent management training, many children remain in the clinically impaired range of functioning (Doubleday & Hey, 2004; Greene & Doyle, 1999). Factors related to poorer outcome include marital distress (Webster-Stratton & Hammond, 1999), maternal stress and depression

(Webster-Stratton & Hammond, 1990) and social isolation (Scott, 2001). Forehand and Kotchick (1996) also argue that the absence of any consideration of ethnicity or cultural customs of parenting in traditional parent training programmes has contributed to their lack of success in effecting long-term change.

Researchers have responded to these findings by broadening traditional parent training programmes to include adjunctive treatments such as strengthening social support and enhancing communication between parents (Webster-Stratton, 1994), and more child-focussed treatments such as problem-solving skills training (Webster-Stratton & Hammond, 1997). Whilst results suggest that these enhanced programmes are more efficacious than traditional models, their effectiveness in clinical settings remains to be shown (see Southam-Gerow & Kendall, 1997).

The difficulty of applying research findings in clinical settings is an issue that has been raised by Scott (2001), amongst others. He points out that most of the parent training evaluations have been carried out in the USA, usually by the developers of the programme, in highly specialised settings and using highly trained staff. Scott further comments that "evaluation of outcomes for usual services delivered in "real life" clinics show little if any effect" (Scott, 2001, p.9). This seems to be in part related to resources, and in part related to the client groups who are usually referred; according to Scott (2001), they are more likely to be disadvantaged, depressed, stressed, less motivated and

their children are more likely to have a range of comorbid difficulties in addition to conduct problems.

To ascertain if parent training could be effective in such "real life", everyday NHS practice conditions, Scott, Spender, Doolan, Jacobs and Aspland (2001) conducted a controlled trial of three-to-eight year olds referred to a selection of Child and Adolescent Mental Health Clinics. Parents were allocated either to a 12-week Webster-Stratton parent training programme or to a waiting list. Their results suggest an improvement in antisocial behaviour on both semi-structured interview and direct observation, and a dropout rate of 18%. However, the authors conclude that follow-up is needed to see if this change is maintained into adolescence and even adulthood.

1.5.3 Conclusions

Although there is good evidence for the efficacy of parent training programmes, and some evidence for their effectiveness, there still remain a significant proportion of families who do not benefit from this approach, and they are likely, ironically, to be those with the greatest need (Hartman et al., 2003; Webster-Stratton & Hammond, 1999). Several writers have suggested that this is because vital components may be missing that are crucial to parenting practices (Forehand & Kotchick, 1996; Greenberg et al., 1991; Hill, 2002; Landy & Menna, 2001). For example, Dumas and LaFreniere (1995) found that mothers of aggressive children were able to demonstrate good parenting skills with unfamiliar children, which they were unable to show with their own children. They conclude that this maternal behaviour cannot be

accounted for solely in terms of limited parenting skills, as these mothers "obviously had the necessary skills to behave positively and contingently" (Dumas & LaFreniere, 1995, p.28). They suggest, instead, that this highlights the importance of the transactional context of the mother-child relationship and its impact on current interactions.

This understanding has led to research looking more closely at factors, other than behavioural factors, specific to the parent-child relationship that may be related to outcome. For example, clinical observations suggest that parenting skills can be undermined by the attachment preoccupations of parents (Hill, 2002). Further, research has shown that enhancing parenting skills actually leads to a resurgence of positive attachment behaviours (Sutton, 2001).

This research highlights the need, identified by several researchers (see, for example, Deklyen, 1996), to further understand the factors that may influence parents' ability to respond appropriately and sensitively to their child (Dumas & LaFreniere, 1995). The inability of social learning theory alone to account for these findings has led to a growth in interest in attachment-based theories of the development and maintenance of child conduct problems.

1.6 Parenting, attachment theory and conduct problems

1.6.1 Attachment theory

Attachment theory, developed by Bowlby (1969, 1973, 1980), is a normative theory describing how children learn to regulate emotion through the

formation and maintenance of a special kind of social bond, initially with their mother. According to Bowlby, the quality of interactions that comprise this relationship (and significant relationships with other attachment figures) determines the kinds of "internal working models", also known as self-other schemata or internal representations, that the infant develops. These models become what Thompson and Raikes (2003) refer to as "interpretive filters", often unconscious, through which children and adults experience and understand new relationships with reference to earlier experiences of caregiving. Internal working models have been described as "mental schemata in which expectations about the behaviour of a particular individual towards the self are aggregated" (Fonagy & Target, 1998, p.12) and provide prototypes for later social relationships.

According to attachment theory, good enough parenting involves emotional attunement or self-regulation and a capacity to be sensitive to the state of one's child (Fonagy & Target, 1998). The "good enough mother" can attune to her infant's emotional state, via facial expressions and vocal gestures, but also has a capacity to tolerate and remedy misattunements, giving the infant a wider range of expectancies about others' behaviours. Parenting then requires an emotional flexibility, which enhances the child's ability to regulate their own emotions in later relationships with others (Fonagy & Target, 1998).

The capacity to parent in this way is thought to be characteristic of securely attached parents. Studies using the Adult Attachment Interview (AAI; George, Kaplan & Main, 1984), which asks about childhood attachment

relationships and the meaning currently attributed to these relationships, have shown that a securely attached parent is three or four times more likely to have a child who is also securely attached (van IJzendoorn, 1995). Parents classified as insecure/dismissing, insecure/preoccupied, or unresolved/disorganised with respect to loss or trauma, according to the AAI, however, are less likely to have securely attached children. For example, parents classified as dismissing tend to "dismiss" aspects of their own emotional experience, and thus adopt an overly coping or avoidant stance in response to their baby's distress (Fonagy & Target, 1998). The baby in turn internalises this relationship and seems to ignore his/her own emotional experience (Fonagy & Target, 1998). Parents of "disorganised" children, on the other hand, are likely to show behaviour that is frightening or unpredictable (Main & Hesse, 1990).

Indeed, it is this early interaction with parents and caregivers that is thought to prepare the child for all later interactions with other people, including their own children (Fonagy & Target, 1998). Researchers have found that the internalised working models based on these early interactions with parents and caregivers predict attachment security of the next generation of children (Steele, Steele & Fonagy, 1996).

Although attachment theory has made significant contributions to our understanding of early child development, its application to a growing number of negative parental and child outcomes has led it to face a number of methodological and conceptual challenges. For example, it is still not clear

which attachment relationship is the most important (Thompson & Raikes, 2003). Although most research attention has focussed on the child's attachment to the mother, a changing social structure in developed countries at least has led to a change in caregiving roles; for some children, the principal carer may be the father, grandparents, extended family members or, for some, institutions. Another conceptual issue is the extent to which other affiliative relationships, such as those with friends, romantic and marital partners, and one's own offspring, are based on infant-parent attachments (Thompson & Raikes, 2003). For example, Ainsworth (1989) has suggested that the relationship between parents and their children involves the caregiving-behavioural system in addition to the attachment system.

What is also not yet known is how attachment processes evolve over time to accommodate the changes required by these other developing relationships (Thompson & Raikes, 2003). It is clear that there is still much to be learned about which factors can affect attachment organisation in the years beyond early infancy and bring about the reworking of earlier understandings of relationships and the self (Thompson & Raikes, 2003).

A significant methodological challenge facing attachment theory, according to Thompson and Raikes (2003), is how to define and measure internal working models. They argue that Bowlby's concept of the internal working model is a "conceptual metaphor" and not a "systematically defined theoretical construct" (p.696). Thompson and Raikes raise several important questions about these working models; for example, they ask whether or not they are

consciously accessible, how they develop, and how they relate to other aspects of cognitive processing. Although heuristically a useful concept, the internal working model still faces these and other challenges.

Recent applications of attachment theory have led some writers to ask whether there is in fact anything that attachment security, and conversely attachment insecurity, has not been related to (see Thompson & Raikes, 2003). However, it has made useful contributions to our understanding of the development of many aspects of child psychopathology, including child behaviour problems. Perhaps the most useful contribution it has made is in encouraging researchers and clinicians to take account of the affective aspect of parent-child interactions.

1.6.2 Attachment theory and conduct problems

According to Landy and Menna (2001), the emphasis on reducing symptoms using behavioural and social learning approaches has "resulted in a tendency to ignore the need to consider the emotional component of parent-child interactions" (p.224). Hill (2002) also notes that parents are not simply more or less skilled agents of behavioural change but that they have relationships with their children and that this needs to be taken into account. Also, whilst it is clear that parents do not all respond to child behaviour in the same way and have varying thresholds for reacting negatively to their child's challenging behaviour (Lahey et al., 1999), it is not clear what determines the relative positions of these thresholds for different parents.

According to Belsky (1984), it is those aspects of a parent's personality that are a product of their developmental history that affect how they appraise and respond to their child's behaviour. A number of researchers have lent support to this theory by demonstrating that parents whose internal working models reveal an insecure attachment history are more likely to have poorer parenting skills and are also more likely to have children with problems (Cohn, Cowan, Cowan & Pearson, 1992; Crowell & Feldman, 1988; Crowell, O'Connor, Wollmers, Sprafkin & Rao, 1991; Edelstein et al., 2004). For example, in their study of parents and young children with behaviour problems (with and without developmental delay), Crowell and Feldman (1988) found that a significant percentage of mothers classified as detached, preoccupied or enmeshed had children with behaviour problems. They also found that mothers in these groups were significantly less helpful and more controlling when assisting their children in a task (Crowell & Feldman, 1988).

Extending this research, Crowell et al. (1991) found a relationship between mothers' conceptualisations of parent-child relationships, mother-child interaction and child behaviour problems. In a sample of 49 mothers and their conduct disordered children referred to a child psychiatric clinic, they found that only six mothers were classified as secure (using the Adult Attachment Interview), 19 were classified as dismissing, and 24 were classified as preoccupied. They also found that attachment classification was related to mothers' interaction behaviours and to child's clinical diagnosis, with dismissing and preoccupied classifications being associated with more severe child diagnoses. These results were replicated in a non-

clinic sample by Cohn et al. (1992) who looked at both mothers' and fathers' working models of relationships and their relationship to parenting styles and child behaviour. Further, they found that parents' attachment classifications were related to both the dimension of parental warmth and parental structure in interaction tasks.

Research relating to parents' attachment status suggests that mothers of children with conduct problems engaging in parent training programmes are likely to have poorer outcomes if they are unresolved with respect to loss or trauma (Routh, Hill, Steele, Elliot, & Dewey, 1995). This has been related to a "disorganised" attachment style (Green & Goldwyn, 2002). Further, Routh et al. (1995) found a relatively low rate of secure attachment classifications in their participants and a high rate of unresolved classifications, concluding, "if this referred sample is representative, conduct problems quite commonly develop against a background of attachment difficulties in at least one parent" (p.1194).

Routh et al. (1995) hypothesise that parents with unresolved status according to the AAI may find the application of parenting techniques particularly problematic because their angry interactions with their children provoke such overwhelming reactions (characteristic of this attachment style) that they interfere with their capacity to both think and act differently. They also suggest that these parents' incapacity to metacognitively reflect about relationships may make them unable to *describe* even the behavioural aspects of their relationships with their children (Routh et al., 1995).

1.6.3 Summary

Whilst attachment theory has contributed significantly to our understanding of conduct problems, in focussing on the transactional history of the mother-child relationship, it has also raised several questions. The first relates to the exact nature of the parent-child relationship. Ainsworth (1989) has argued that the relationship of a mother to her child is a bond, rather than an attachment, and as such is activated by what she refers to as the caregiving-behavioural system. Ainsworth further argues, "a mother does not normally base her security in her relationship with her child, however eager she is to give care and nurturance" (Ainsworth, 1989, p.714). However, as Edelstein et al. (2004) argue, research findings suggest that individuals' caregiving and attachment styles are closely related, so much so that adult attachment predicts caregiving behaviour, and particularly in anxiety-producing situations. It is clear that, as Ainsworth (1989) points out, very little is known about these bonds and that more research is needed to clarify this.

The second question raised by attachment research concerns how attachment style might relate to the behaviour management practices so commonly seen in families of children with conduct problems (Patterson, 1982). Several writers have called for greater integration of attachment theory at both research and clinical levels with other models, so as to enhance our understanding of conduct problems and our methods of treating them (Scott, 2003). For example, Greenberg et al. (1993) call for the integration of attachment research and models with those of other socialization researchers, arguing, "microsocial learning processes are

operative throughout the formation and maintenance of attachment relationships" (p.203). Their theory is that disciplinary conflicts between parents and children reflect not only immediate social learning processes but also the more distal effects of attachment history (Greenberg et al., 1993).

However, strong evidence supporting the relationship between attachment and conduct problems "is not yet in" (Burke et al., 2002, p.1279). What is also not yet clearly known is how other aspects of parenting, such as cognitive aspects, might contribute to the emotional and behavioural dimensions so far reviewed. Although attachment theory refers to working models or internal representations of relationships, it is not clear what these might consist of, how they affect parenting practices and indeed how to measure them (Thompson & Raikes, 2003). According to Greenberg et al. (1993), "it is as yet unclear *how* the caregiver's state of mind affects parental responsiveness at a microsocial level" (p.197). The relative paucity of research looking at the interaction between parenting practices and attachment in the area of conduct problems means that it is difficult to specify the mechanisms by which parents' internal working models affect parent-child interaction beyond affecting their responsiveness and sensitivity to their children (Hill, 2002; Main, Kaplan & Cassidy, 1985). Further, the difficulties of changing parents' internal working models means that it may not be the best and most cost effective point of intervention (Scott, 2003).

One area of development in this direction, though not overtly linked to attachment research, is research that looks at the kinds of dysfunctional

cognitive processes that may influence parent-child interactions (Stallard, 2002). Whilst attachment theory provides a general theory of human motivation and behaviour within which we can begin to understand why parents might have difficulties in parenting, it does not tell us on the "microsocial" level (Greenberg et al., 1993) about the kinds of cognitive or perceptual biases that may link parents' emotional sensitivity and regulation capacity to coercive parenting behaviours.

1.7 Parenting, cognitive theory and conduct problems

1.7.1 Cognitive theory

Cognitive therapy has been shown to be effective for a range of adult disorders and the addition of a cognitive component to traditionally behavioural treatments, such as exposure, has led to treatment gains in many areas (White et al., 2003). The success of cognitive theory has led to the widespread acceptance in clinical work that the *meaning* we ascribe to events can influence how we feel and, subsequently, how we respond to these events (Beck, Rush, Shaw & Emery, 1979).

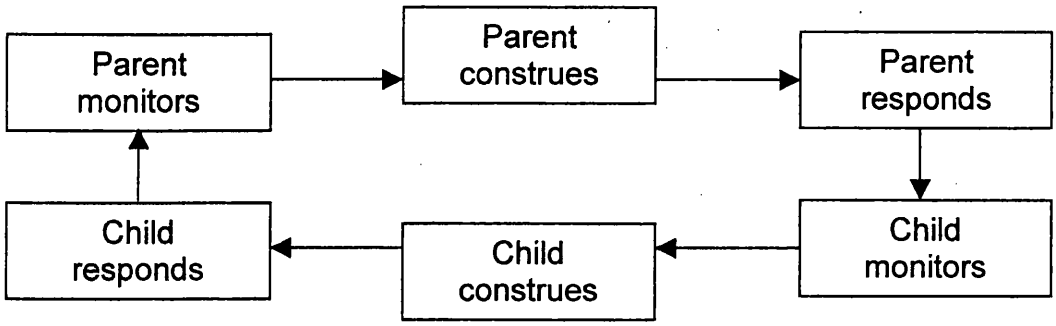
Despite the successes of the application of cognitive theory to work with adults, clinicians and researchers alike have been slower to incorporate these ideas into their work with children and families, in part due to the very different developmental and systemic factors that need to be taken into account in work with children and their families (Stallard, 2002). However, there is growing evidence to suggest that cognitive distortions and deficits are associated with some kinds of child psychopathology (Bugental &

Johnston, 2000; Stallard, 2002). For example, Kendall and colleagues have demonstrated that children with anxiety disorders tend to misperceive ambiguous events as threatening (Kendall et al., 1992). Similarly, aggressive children have been shown to attribute hostile intent in ambiguous situations and also attend to fewer cues when making decisions about others' intent (Dodge, 1985). However, as Stallard points out, the role of these cognitive distortions and deficits in the onset and maintenance of these problems is as yet not well understood (Stallard, 2002).

What is also not clear is what role parental cognitions might play in the development and maintenance of these problems. Although it is acknowledged that it would be "inappropriate" to view the child in isolation, without understanding the role of, for example, the family, little systematic work has been done on identifying the kinds of parental cognitive distortions or deficits that may contribute to the onset and maintenance of specific child problems (Stallard, 2002).

Indeed, to date there are very few models which attempt to account for the possible transactions between parental and child cognitions, feelings and behaviours. One such framework is offered by Davis, Day and Bidmead (2002). They describe a cognitive model of parent-child interaction, which is offered as part of their Parent Adviser training to provide trainees with a framework for their work with parents and their children. This is reproduced below.

Figure 1: *Parent-Child Interactive Cycle (from Davis, Day & Bidmead, 2002)*



This framework suggests that parents and their children are engaged in ongoing cycles of both construing and constructing each other's behaviour. More specifically, parents are continuously monitoring their children's behaviour, construing what they monitor on the basis of a complex set of previous expectations, beliefs about themselves as parents and about the meaning of their child's behaviour, feelings, experiences, and then responding to this behaviour. The child in turn monitors these parental behaviours, construes them according to his/her own developing representations or constructions and then responds accordingly.

According to this framework, the construing process is essentially an active one, based on the parent's model or representation of the specific child. According to Davis and colleagues this representation "consists of everything parents know, feel or think about their child" and "enables them to anticipate their children and understand what is going on" (Davis et al., 2002, p.155). For example, when the infant is very young, it enables them to distinguish between the different cries that the baby emits. How the cry is construed will

then determine how the parent responds, for example, by feeding the child, cuddling them or changing their nappy.

The nature of each parent's constructions is likely to be very different depending on the individual child, their own experiences of being cared for, their cultural beliefs and social environment. Davis et al. (2002) give the example of communication; they argue that the construction that it is important to communicate with your baby will result in different behaviour from that which derives from a construction of young babies as not sufficiently developed to engage in social interaction.

This framework supports Dumas and LaFreniere's (1995) research, which highlights the role of both the proximal and distal relationship context (and stressors) in the parenting behaviours of mothers of aggressive children. It also highlights the importance of parental cognitions in understanding conduct problems, a view strongly advocated by many writers in the field (see Bugental & Johnston, 2000, for an excellent review).

1.7.2 Cognitive theory and conduct problems

Support for the role of cognitive factors in conduct problems comes from research looking at either child cognitions or at parental cognitions and their relationship to conduct problems. For example, in terms of child cognitions, many studies have shown that children with conduct problems have hostile biased social cognitions, which in turn influence how they behave in social situations (Dodge, 1993; Gomez, Gomez, DeMello & Tallent, 2001). Dodge's

work has shown how, at all stages of information processing, children with conduct problems have a qualitatively different style of encoding, representing and selecting social information than their non-problem peers. For example, one study showed how aggressive children attend to fewer social cues when making a behavioural decision, and that these cues are more likely to be hostile cues (Dodge, 1993). This has been linked to a hostile attributional bias, which in turn has been shown to predict the onset of aggressive behaviour problems six months later in preschool children (Dodge, 1993).

Of growing interest to researchers in this field has been the relationship between these more proximal processing styles and the more distal effects of latent schemas or mental structures that might guide situational processing. However, as Dodge (1993) writes, this relationship is still largely theoretical given the methodological difficulties in operationalizing these latent schemas. Despite these difficulties, several studies have tried to operationalize these schemas and examine their impact on children's behaviour (Dodge & Tomlin, 1987; Gomez et al., 2001). For example, Dodge and Tomlin (1987) found that aggressive children are more likely to call on information from their past experiences ("top-down" processing) when making social judgements, as opposed to the "bottom-up" method used by their non-problem peers. Gomez et al. (2001) found that children's perceived maternal control and support influenced current hostile biases in social information processing and that these influenced their social behaviour. They refer to these perceptions

as "relational schemas and scripts involving interactions with their parents" (Gomez et al., 2001, p.520).

What are less well known are the parental factors and processes that might be involved in the development of these biased relational schemas and scripts. Several studies have looked at different kinds of parental cognitions regarding their children's negative behaviour and regarding their own behaviour as parents. For example, in their study of appraisals of child behaviour by mothers of problem and non-problem toddlers, Kendziora and O'Leary (1998) highlight the importance of the appraisal process in parenting. They argue that the extant parenting literature does not differentiate between parents' monitoring and parents' appraisals of child behaviour as two distinct concepts. They write that, "in contrast to monitoring, behavioural appraisal refers to the parent's classification and evaluation of the intensity of child behaviour *once it is seen"* (Kendziora & O'Leary, 1998, p.247). They cite the appraisal bias incorporated in Patterson's coercion model, where the high rate of initiated conflict with their children leads parents to overclassify their children's behaviour as deviant. In terms of Davis et al.'s (2002) above framework, in such situations parents will begin to selectively attend to and monitor only those behaviours that confirm their constructions of their children as "difficult".

In terms of the kinds of schematic cognitions that might influence these situational appraisals, most research to date has focussed on parental attributions (Beauchaine, Strassberg, Kees & Drabick, 2002; Bugental &

Johnston, 2000). Social information processing models suggest that parents' escalation of conflict with their children results from stable negative attributional biases towards their children. For example, Baden and Howe (1992) demonstrated a relationship between level of child aggression and the likelihood of parents attributing problematic child behaviours to factors that are global, stable and internal to the child. Parents of conduct-disordered children were also more likely to expect that attempts to influence their children's negative behaviour would be ineffective (Baden & Howe, 1992). There are also some suggestions that "coercive" parents have such rigid schematic cognitions, such as attributions, that they cannot use more event-dependent levels of processing to differentiate between different contexts with their children (Bugental & Johnston, 2000).

As in Davis et al.'s (2002) framework, it has been hypothesised that the relationship between these parental cognitions and child and family outcomes is mediated by the effects that these cognitions, and associated emotions, have on parenting behaviours (Beauchaine et al., 2002; Patterson, 1997). However, traditional approaches to parent training contain no explicit material on parental cognitions or emotions. Whilst many writers have acknowledged the importance of the role of parental cognitions in parent training interventions (Johnston, 1996; Stallard, 2002), a cognitive component examining parents' attributions and beliefs has not as yet been formally added to parent training.

White et al. (2003) have proposed a "cognitively enhanced" parent training package which consists of two main components: first, sharing a simple formulation of the problem with the client; and second, eliciting and challenging parents' thoughts and feelings about the skills being taught. The main focus of this enhanced model is on parents' attributions regarding their children's behaviour and their thoughts and feelings about the particular skills they are acquiring.

Whilst White et al.'s (2003) reports of parents' comments after the training course suggest that parents can engage with and benefit from a cognitive component to parent training, they conclude, however, that further research is needed. More specifically, they conclude that research needs to consider which cognitive processes are most important in parents who are having difficulties with their children.

1.7.3 Summary

Research looking at parental cognitions suggests that they may have an important role to play in the development and maintenance of conduct problems. However, most of this research has either focussed on conscious parental cognitions either about the self (as parent, in terms of efficacy) or about the child (in terms of attributions). Little work has been done looking at the kinds of deeper, schematic self-other, or relational, cognitions that many theories and models, such as attachment theory, suggest may be important in the development and maintenance of conduct problems (Stallard, 2002). Indeed, according to Maccoby (1992), mutual cognitions "no doubt play an

important role in the carryover of one phase of socialization to the next" (p.1014). Much of the literature reviewed above suggests that parents and children accumulate long histories of interacting with each other, which influence how they interact with each other in the here-and-now (Dumas & LaFreniere, 1995; Maccoby, 1992). Also, the literature relating to defining and measuring conduct problems suggests that it is an interpersonal phenomenon, felt most acutely and initially in the context of the parent-child relationship.

Also, little is known about how parental cognitions might influence childhood onset conduct problems. The indirect model, outlined above, suggests that parental cognitions have an indirect effect on child outcomes via their effect on parental behaviours (Patterson, 1982). This is consistent with the cognitive behavioural model of thoughts impacting on feelings and behaviour. However, there is also the possibility that parental cognitions and belief systems may impact directly on child outcomes (McGillicuddy-DeLisi, 1985). For example, the home environment may reflect parental beliefs through organisation of the home, types of toys available, and geographical location of home and school (McGillicuddy-DeLisi, 1985). Also, parents' beliefs may be communicated to their children over the course of their history of interactions together. According to McGillicuddy-DeLisi (1985), this has implications for how we measure parental beliefs and their relationship with child behaviour in that the "belief system cannot be observed in any one particular behaviour" (p.9).

Finally, as Dumas and LaFreniere (1995) and Hill (2002) have suggested, parent-child relationships are *relationships* and, as such, both parties in the relationship will be interacting in the here-and-now based on a history of interactions; for parents this may be a history of interactions with their own parents, as suggested by attachment research, and with their child. These relational schemas may be important not only in the development and maintenance of conduct problems, but also in influencing whether or not parents can engage with interventions offered (Safran & Segal, 1990). What is not yet known is whether parents of children with conduct problems have different relational schemas from parents of children without conduct problems, and whether or not these schemas are related to parenting behaviours that have been shown to be involved in the maintenance of these problems (Patterson, 1982). Indeed, few studies have linked parental schemas to parental behaviours (Sigel, 1985). This is in part because of the difficulties of operationalizing and therefore measuring these schemas, as suggested by Dodge (1993), and also the difficulties of reliably observing parent-child interactions. It seems that a useful approach would be one that allows integration of the main theories outlined above, given the very complex nature of parenting, parent-child relationships and conduct problems.

1.8 Interpersonal schema theory

1.8.1 Interpersonal schema theory

Interpersonal schema theory, as described by Safran (1990a, 1990b) and Safran and Segal (1990) provides a way to understand here-and-now parent-child interactions in the context of each person's anticipated and desired responses of the other. It also provides a basis for integrating the currently separate ideas emanating from attachment, cognitive and social learning theory research. Indeed, one of its main premises is that cognitive and interpersonal processes are "two sides of the same coin" (Safran & Segal, 1990, p.44).

Safran posits the concept of an *interpersonal schema,* which he describes as a "generalized representation of self-other relationships" (Safran, 1990a, p.93) that is coded at both cognitive and affective levels. According to interpersonal schema theory, we develop interpersonal schemas that are adaptive in a developmental context because they permit the prediction of interactions with attachment figures and enable us to maintain relatedness with these figures (Safran & Segal, 1990). In this way, interpersonal schemas go beyond information processing biases to incorporate information about "if-then contingencies relevant to maintaining relatedness" (Safran & Segal, 1990, p.68). Further, the concept of an interpersonal schema proposes that our perceptions of our selves and others are intrinsically interactional.

According to interpersonal schema theory, maintaining relatedness is the basic goal of all human beings and is hard-wired. However, the ways in which this goal is achieved are, by contrast, soft-wired or learned (Safran & Segal, 1990). In this way interpersonal schema theory is complementary to social learning theory. According to Safran and Segal (1990), "social learning experiences are ... influenced by an innate propensity for maintaining interpersonal relatedness. Thus children learn to coordinate their affective and behavioural response repertoire in the process of maintaining relatedness with attachment figures" (Safran & Segal, 1990, p.58). Psychologically healthy people, therefore, develop a range of behavioural repertoires because they have flexible interpersonal schemas, which allow them to maintain relatedness. Maladaptive social learning experiences, on the other hand, will contribute to the "impoverishment of behavioural repertoires" (Safran & Segal, 1990, p.59). Those at the receiving end of these negative social learning experiences come to believe that a wide range of feelings and actions will jeopardise interpersonal relatedness.

This impoverishment of behavioural repertoires is thus related to a corresponding reduction in cognitive flexibility. If interpersonal schemas become rigid and inflexible, they cannot adapt to new situations and continue to shape interpersonal interactions through what Safran refers to as a "cognitive-interpersonal cycle" (Safran, 1990a, p.97). This cycle describes how once-adaptive interpersonal schemas become progressively maladaptive as they fail to change in the face of new circumstances. For example, if a person anticipates hostility from others, then they will selectively

interpret the behaviours of others as hostile. They will then respond to this expected and perceived hostility with hostility, and by doing so elicit hostile behaviours from others. This will ultimately confirm their expectation of hostility from others and maintain their interpersonal expectations (Safran & Segal, 1990). In this way, interpersonal schemas are maintained through the processes of both construing and constructing one's environment.

Hill and Safran (1994) also write that interpersonal schemas are maintained on the basis of the principle of complementarity, based on Kiesler's Interpersonal Circle (Kiesler, 1983). According to Kiesler's theory (1983), specific interpersonal behaviours pull, predictably, interpersonal behaviours from others. Kiesler argues that all behaviour can be arranged along two axes or dimensions of control and affiliation. According to his interpersonal circle, on the control axis (dominant-submissive), dominant behaviours pull submissive behaviours from others, whilst on the affiliative axis (hostile-friendly), friendly behaviours have a reciprocal relationship with other affiliative behaviours. Therefore, reciprocal behaviours on the affiliative dimension and opposite behaviours on the control dimension are thought to be complementary and fundamental to healthy interpersonal relationships. The underlying assumption of interpersonal complementarity is that a complementary interaction is a satisfying one.

Although Kiesler's theory has received much support (see Hill & Safran, 1994), it has also received criticism (Orford, 1986). According to Orford, interpersonal complementarity is not a given, as suggested by Kiesler (1983),

but is affected by a number of factors, such as gender and status. He cites evidence that suggests that hostile-control behaviours are more likely to be complementary, that is eliciting hostile submission, when the recipients of hostile-dominance consider it to be legitimate, for example where there is a power imbalance such as in mother-son dyads (Orford, 1986). It is less likely to elicit complementary behaviours in more equal relationships (Orford, 1986).

Interpersonal theories have also faced problems relating to the operationalisation and measurement of the kinds of processes that are likely to guide interpersonal interactions. Several writers have proposed cognitive-interpersonal mechanisms such as relational schemas or scripts (see, for example, Horowitz, 1989). However, as with internal working models and other cognitive processes, they are very difficult to define and measure. Although there are currently procedures that allow researchers to develop formulations of interpersonal themes (Horowitz, 1989), they are time consuming to implement and, according to Hill and Safran (1994), do not lend themselves easily to quantification. In response to these measurement issues, Hill and Safran (1994) have developed an Interpersonal Schema Questionnaire (ISQ), based on Kiesler's Interpersonal Circle and Safran's (1990a, 1990b) interpersonal schema theory, which aims to measure the kinds of interpersonal schemas respondents have towards significant others in their lives. The section below highlights how this questionnaire has been used to examine the kinds of interpersonal schemas associated with different kinds of psychopathology, and its potential application to conduct problems.

1.8.2 Interpersonal schema theory and conduct problems

To date, interpersonal schema theory has been applied to a limited number of psychological problems including depression (Soygut & Savasir, 2001) and child sexual abuse (Cloitre, Cohen & Scarvalone, 2002), but it has not as yet been brought to the subject of the development or maintenance of child conduct problems. Findings from the available studies looking at adult psychopathology, however, are consistent with the predictions of interpersonal schema theory, that is that psychological ill-health is associated with rigid, inflexible expectations of non-complementarity, particularly regarding behaviours on the affiliation (hostile-friendly) axis, from significant others (Soygut & Savasir, 2001). Available research also suggests that the interpersonal expectations of those with psychological problems, for example, resulting from childhood sexual abuse, are more negative than those without such difficulties.

Although to date interpersonal theory has not been brought to the subject of conduct problems, the theory of interpersonal schemas and findings from previous research, allow us to hypothesise about the possible relationships between interpersonal schemas with relation to the child and significant others, and parenting behaviours. For example, research looking at parental attributions suggests that parents of children with conduct problems might expect more hostile responses from others, and in particular their own child. Attachment research, further, would suggest that parents of children with conduct problems would have very restricted and negative patterns of interpersonal expectations which derive from their own early attachment

relationships. Findings from social learning theory would suggest that parents of children with conduct problems would expect less complementary responses from others, and in particular their children, due to the coercive process outlined earlier. In terms of parenting behaviour, social learning theory would also predict that parents of children with conduct problems would display a parenting style that is both lacking in warmth, and that is either overly dominant or overly submissive.

Indeed, in terms of parenting behaviour, interpersonal theory in general has made useful contributions to our understanding of the kinds of interpersonal styles that would be more likely to result in adaptive social learning experiences. Kiesler (1983) argues, for example, that reciprocity in terms of controlling behaviours and correspondence in terms of affiliative behaviours creates an adaptive social learning environment. He quotes Devogue and Beck's (1978) assertion that, "only in friendly dominant/friendly submissive dyads...would social "reinforcement" in the form of praise and approval have its maximum effect" (quoted in Kiesler, 1983, p.201). This clearly has implications for parent training programmes based on traditional social learning principles.

What is less clear from interpersonal schema theory is which particular interpersonal schemas will be of most use in understanding how conduct problems may be maintained. For example, interpersonal schemas regarding one's mother and father may generalise to one's interpersonal schemas regarding one's close friend or romantic partner (as suggested in

previous studies looking at interpersonal schemas), but it is not clear whether they would generalise to one's child. There is currently much support in attachment research for the assertion that parents' own relationships with their own parents will influence the attachment security of their own child (van IJzendoorn, Juffer & Duyvesteyn, 1995). However, it is not clear whether parents' own attachment security might also influence their thoughts, beliefs and behaviours towards their child. One could argue, based on the findings from attachment theory with relation to conduct problems explored earlier, that it is parents' own experiences of being parented and their experiences with their own child that influence how they appraise and respond to their own child's behaviour, which in turn helps to build the child's own sets of expectations and beliefs regarding the care they receive from the parent. However, one could also argue, as has been explored in attachment research, that early internal working models may be modified by positive interpersonal experiences, for example, with a relationship partner, which means that a new modified internal representation of relationships may drive current caregiving behaviour with the child (Berlin & Cassidy, 1999).

Knowledge of parents' interpersonal schemas regarding their own parents may also help us to understand not only whether these schemas might be involved in the development and maintenance of conduct problems, but also whether or not they may present obstacles to treatment. To illustrate this, one could amend Davis et al.'s (2002) framework outlined earlier to incorporate interpersonal schemas.

Figure 2: *Amended parent-child interactive cycle (following Davis et al., 2002)*

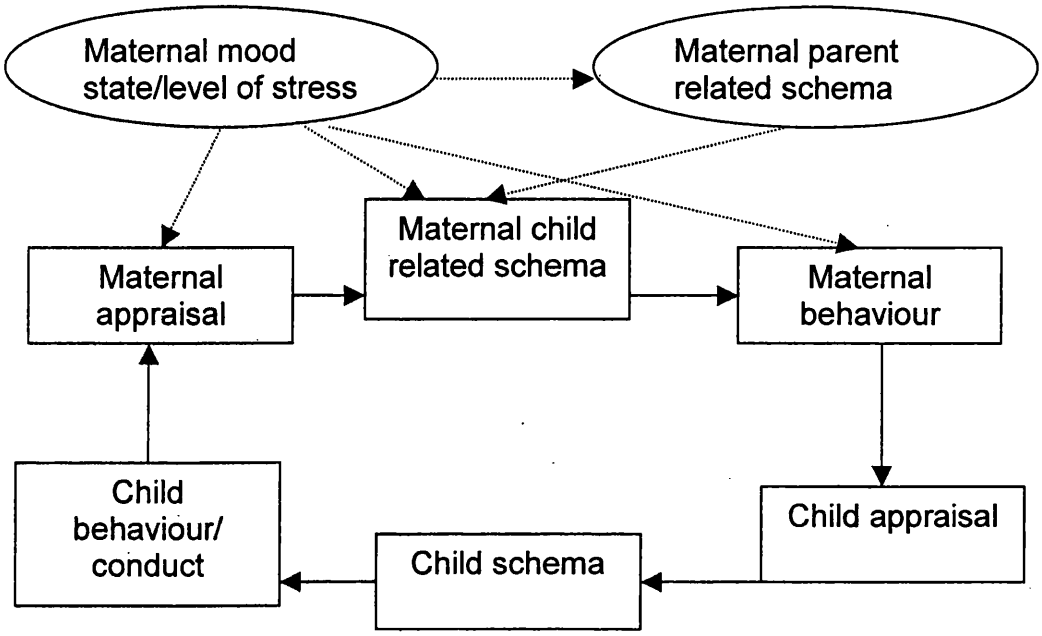


Figure 2 shows how mothers' interpersonal schemas may be influential in the development of conduct problems, by affecting how they behave towards their children and in turn how their children behave towards them. One could argue that mothers come to the task of parenting with a range of expectations about others' behaviour, based on their own experiences in close relationships (Hudson & Rapee, 2001). If these expectations are negative and fixed, one can see how such beliefs will quickly affect the parent-child relationship. If, through many negative interactions with the child, these expectations become more negative and fixed, then this will affect the appraisal process and mothers will begin to selectively attend to aspects of their child's behaviour that confirms their expectations of them. Maternal mood state has been added to illustrate its possible effect on not

only the appraisal process, but also on the development of interpersonal schemas and also maternal behaviour.

The process outlined above also illustrates how interpersonal schemas can guide other kinds of social information processing, such as how people respond to therapeutic interventions. According to Safran (1990b), knowledge of clients' interpersonal schemas may be useful in predicting how they will respond to therapeutic interventions, and one study has shown that interpersonal schemas predict the quality of the therapeutic alliance (Soygut, Nelson & Safran, 2001). Cloitre et al. (2002) further speculate that "patients who imagine significant others as mistrusting, hostile, distant or disinterested may not easily engage in a therapeutic relationship..." (p.109). It can be argued that the ultimate aim of any therapeutic intervention, including parent training programmes, is to encourage clients/parents to do what Neisser refers to as "more seeing and less imagining" (quoted in Greenberg & Safran, 1984, p.594), which they can only do if they are encouraged to challenge and modify their dysfunctional interpersonal schemas.

1.9 Aims and rationale for the current study

1.9.1 Summary

Conduct problems present some of the biggest challenges to social and health services in the UK today. However, beyond the care and control measures favoured by criminal justice agencies and politicians, a significant proportion of children with these difficulties, or their families, still do not receive the kinds of treatment that they need. Current interventions of

choice, though helpful for many parents and their children, do not seem to reach those families who are the most vulnerable and in need.

This introduction has reviewed the developments in research that may in the future enhance what can be offered in clinical settings. It has specifically reviewed these advances with reference to the complex demands of parenting. More importantly, it has argued that both proximal and distal behavioural, cognitive and emotional aspects of parent-child relationships need to be taken into account. Many writers have called for an integration of theoretical ideas, but at present, few have undertaken the kind of systematic research that can help to further understanding of the development and maintenance of conduct problems.

This study aims to increase our understanding of the maintenance of conduct problems in the context of interpersonal schema theory, which is an integrative theory. It provides a framework with which to understand the development of parental interpersonal schemas and their influence on parental behaviours, and ultimately child outcomes. Many writers have suggested that research into the schematic cognitions of parents of children with conduct problems may help to enhance both engagement with, and implementation of, parent training interventions.

1.9.2 Rationale for the current study

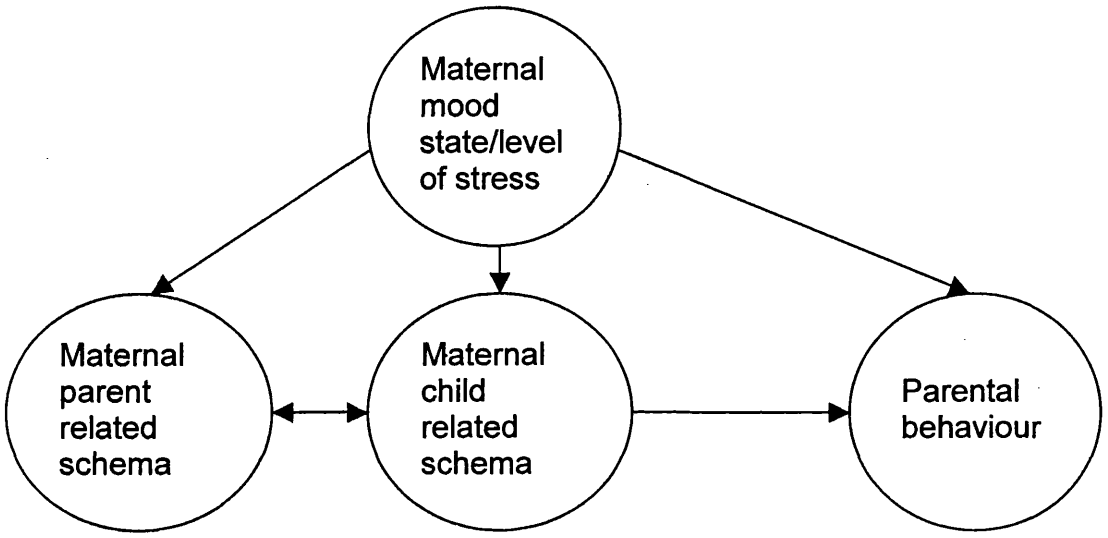
This study is a cross-sectional piece of research that uses both parent report and direct observation to investigate parental interpersonal schemas and their relationship to parenting behaviour in two groups of mother-child dyads, those with conduct problems and those without any significant problems. It is theorised that it is the mother's interpersonal schemas regarding her child which affect how she behaves with her child and which in turn helps to maintain conduct problems. This parenting style is expected to be similar to that elaborated in Patterson's coercion hypothesis (Patterson, 1982), that is low in both warmth/responsiveness and either overly dominant or overly submissive.

Based on the research looking at maternal depression and stress, reviewed above, it is further expected that the relationship between interpersonal schemas and parental behaviours would be moderated by a number of contextual variables including mother's current mental health and level of parenting stress. Given the possible influence of maternal mental health status and parenting stress on both the self-report measures and on parenting behaviour, these relationships will be examined in the study.

Using the amended model of Davis et al.'s (2002) parent-child interaction cycle outlined above, this study aims to investigate one area of this cycle, that is the possible relationship between mothers' interpersonal schemas and parenting behaviour, controlling for the influence of maternal mood state and level of parenting stress. Figure 3 depicts the variables of interest in this

study and their expected relationships. Whilst the model implies causality, it is acknowledged that causality cannot be demonstrated in this cross-sectional study.

Figure 3: *Expected relationships between research variables*



1.9.3 Research hypotheses

This study aims to test the following hypotheses:

Hypothesis 1: Parenting behaviour

The first hypothesis is that the two groups, the conduct problems group and the comparison group, will differ in parenting behaviour. Specifically, the mothers of children with conduct problems will show more negativity and less warmth in their interactions with their children, and either an overly dominant or overly submissive style of parenting behaviour.

Hypothesis 2: Child-related schema content

Mothers of children with conduct problems will have more negative interpersonal schemas regarding their child than mothers of children with no significant problems. Specifically they will:

(a) anticipate more hostile, mistrusting, distant and controlling responses from their child (and conversely, less trusting, friendly, interested and submissive responses)

(b) anticipate less complementary responses from their child (i.e. if they are dominant, the child will be dominant; if they are friendly, the child will be hostile)

(c) rate their child's responses as less desirable

Hypothesis 3: Mother-related schema content

Mothers of children with conduct problems will have more negative interpersonal schemas regarding their mother than mothers of children with no significant problems. Specifically they will:

(a) anticipate more hostile, mistrusting, distant and controlling responses from their mother (and conversely, less trusting, friendly, interested and submissive responses)

(b) anticipate less complementary responses from their mother (i.e. if they are dominant, their mother will be dominant; if they are friendly, their mother will be hostile)

(c) rate their mother's responses as less desirable

Hypothesis 4: Schema repetition

There will be a relationship across the two groups of mothers between interpersonal schemas regarding their own mother and interpersonal schemas regarding their child. Specifically, mothers will expect the same kinds of responses from both their own mother and their child.

Hypothesis 5: Relationship between schemas and parenting behaviour

The differences between the two groups in parenting behaviour will be accounted for by the differences between the groups in interpersonal schemas.

CHAPTER 2: METHOD

2.1 Overview

This was a cross-sectional study examining interpersonal schemas and parenting behaviour in mothers of boys with conduct problems, compared with mothers of boys without any significant problems. The study used self-report questionnaires as well as two structured parent-child interaction tasks that were videotaped and coded according to theoretically guided coding categories. The self-report questionnaires measured interpersonal schemas, mother's current mood state and level of parenting stress. The interaction tasks measured the degree of negativity, warmth, involvement and control between mothers and their sons whilst engaged in a structured task and a semi-structured discussion task.

2.2 Ethics

Ethical approval for this research was obtained from the Institute of Psychiatry Ethical Committee (Research). See Appendix 1 for a copy of the approval letter.

2.3 Recruitment

Participants were recruited through five primary schools in one London borough. With the head teachers' consent, all mothers of 7 to 11 year old boys at these schools were first sent a letter describing the research (see Appendix 2). In this letter, mothers were told that the researcher would be in the playground either before or after school to talk to those who were

interested in participating. Those mothers who expressed an interest were given an oral explanation of the study and were then administered two short screening questionnaires. Those who met the study criteria were invited to participate further in the study.

2.3.1 Inclusion and exclusion criteria

Two groups of 7 to 11 year boys and their mothers were recruited to the study: a conduct problems group and a normal comparison group. This age group was chosen based on theoretical distinctions between early onset and late onset conduct problems; however, this means that no statements can be made about generalisability to other age groups (see Stallard, 2002). Groups were matched as far as possible on a range of demographic variables, which are described in section 2.4 below. Eligibility for both groups was determined on the basis of scores obtained on two parent-report screening questionnaires, the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) and the externalising subscale of the Child Behaviour Checklist (CBCL; Achenbach, 1991). These measures are described in section 2.6.1 below.

Boys were included in the conduct problems group if they: i) obtained scores in the abnormal range (4-10) on the conduct problems subscale of the SDQ (Goodman, 1997), and ii) obtained scores in the borderline or abnormal range (i.e. a raw score of greater than or equal to 17) on the externalising subscale of the CBCL (Achenbach, 1991). Given the prevalence of comorbid hyperactivity problems in community populations, boys were included who

also scored in the borderline range (6) on the hyperactivity subscale of the SDQ. However, they were excluded from the study if their scores were in the abnormal range on the emotional symptoms subscale of the SDQ. This was to rule out the co-occurrence of internalising problems in the conduct problems group.

The comparison group comprised 7 to 11 year old boys whose mothers reported them as not having any significant emotional or behavioural problems. In order to be included in this group, boys had to score in the normal range on all of the subscales of the SDQ, and score below 17 on the externalising subscale of the CBCL. Screening data for each of the groups are presented in Chapter 3.

Boys and their mothers were excluded from the study if they did not have a good enough command of the English language to be able to understand and complete the questionnaires and interaction tasks.

2.3.2 Power analysis

In a similar study examining the attachment status of mothers of children with and without behaviour problems, Crowell and Feldman (1998) found a large effect size in their clinic referred group of mothers of children with conduct problems with 77% being insecurely attached and 23% securely attached. They also found that mothers in these groups were significantly less helpful and more controlling when assisting their children in a task. Although there is a lack of research looking at the relationship between interpersonal schemas

and parenting behaviour, attachment classifications are similar theoretical constructs and are based on the same underlying theory of interpersonal relationships. Therefore, the power analysis for the present study was based on the assumption of a large effect size. It was estimated that a sample size of 16 in each group was needed to have 80% power at $\alpha = .05$.

2.3.3 Response rates

Letters were sent out by the schools to approximately 250 mothers of 7 to 11 year old boys across the five participating primary schools. However, it is not known how many mothers actually received or read this letter. A total of 50 mothers indicated that they would like to participate in the study and filled in the screening measures. Of these, 9 were not eligible to be included in either the conduct problems group or the comparison group on the basis of their responses to the screening questionnaires. Of the 41 eligible a total of 32 (84%) completed the questionnaires and the interaction tasks. The remaining 8 withdrew from the study after filling in the screening measures and before completing the questionnaires or participating in the interaction tasks. The most common reason given was that the son did not want to participate in the research.

2.4 Description of participants

Participants in the study were 32 mothers and their 7 to 11 year old boys, selected according to the inclusion and exclusion criteria above.

2.4.1 Demographic information

This section presents demographic characteristics of the sample. Further descriptive data on psychological variables are presented in Chapter 3.

Age

The mean age of boys and their mothers in the conduct problems group and the comparison group are presented in Table 1. There were no significant differences between the two groups.

Table 1: *Mean age of children and mothers*

	Conduct problems group (n = 16)	Comparison group (n = 16)	t (30)	P
	M (SD)	M (SD)		
Age of boys	10 (1.24)	9 (1.35)	- .80	.42
Age of mothers	35 (4.51)	38 (6.95)	1.15	.25

Ethnicity

Mothers were asked to give information regarding their ethnic group. As can be seen in Table 2, the majority of mothers in both groups were White British.

Table 2: *Number of mothers (%) in each group according to ethnic group*

Ethnic group	Conduct problems group (n = 16)	Comparison group (n = 16)
White British	14 (87.5%)	13 (81.3%)
White Irish	1 (6.3%)	1 (6.3%)
Black African	0	1 (6.3%)
White and Black Caribbean	1 (6.3%)	0
Greek Cypriot	0	1 (6.3%)

Marital status

As can be seen in Table 3, almost half of the mothers in both the conduct problems and the comparison group were single. More of the mothers in the comparison group, however, were married.

Table 3: *Number of mothers (%) in each group according to marital status*

Marital status	Conduct problems group (n = 16)	Comparison group (n = 16)
Single	8 (50%)	7 (43.8%)
Married	5 (31%)	7 (43.8%)
Separated	1 (6.3%)	1 (6.3%)
Divorced	2 (12.5%)	1 (6.3%)

Education

Information regarding mothers' educational qualifications is presented in Table 4 below. Most of the mothers in the conduct problems group left school with no qualifications, whereas only one mother in the comparison group had no qualifications. The majority of mothers in the comparison group obtained more than five O Levels, CSEs or GCSEs and five had university degrees.

Table 4: *Number of mothers (%) in each group according to qualifications*

Qualifications	Conduct problems group (n = 16)	Comparison group (n = 16)
No qualifications	10 (62.5%)	1 (6.3%)
<5 O Levels/CSEs/GCSEs	2 (12.5%)	2 (12.5%)
>5 O Levels/CSEs/GCSEs (grade A-C)	1 (6.3%)	5 (31.3%)
>2 A Levels	0	1 (6.3%)
First degree	0	3 (18.8%)
Higher degree	0	2 (12.5%)
NVQ (Level 1-3)	2 (12.5%)	1 (6.3%)
Other qualifications	1 (6.3%)	1 (6.3%)

Occupation

Mothers provided information regarding their current occupational status. Those mothers who were married or living with their partners were also

asked to provide information regarding their partners' occupational status. This information is presented in Table 5 below.

Table 5: *Number of mothers (%) and partners in each group according to occupational status.*

Occupational status	Conduct problems group		Comparison group	
	Mothers (n = 16)	Partners (n = 8)	Mothers (n = 16)	Partners (n = 10)
Professional post/ White collar worker	2 (12.5%)	1 (12.5%)	5 (31.3%)	3 (30%)
Skilled/Semi-skilled manual	5 (31.3%)	5 (62.5%)	4 (25%)	6 (60%)
Homemaker	5 (31.3%)	0	3 (18.8%)	1 (10%)
Without income	4 (25%)	2 (25%)	4 (25%)	0

As can be seen in Table 5, mothers in the conduct problems group were less likely to have professional or white collar posts than the comparison group. They were also less likely to have partners with these posts. Mothers and their partners of children in the conduct problems group were most likely to have skilled or semi-skilled manual jobs. More mothers in this group were also homemakers than in the comparison group. Interestingly, there were equal numbers of mothers in both groups who were unemployed. However, mothers in the conduct problems group were also more likely to have partners who were also unemployed than mothers in the comparison group.

2.5 Procedure

Those who met the study criteria were given a pack of questionnaires to complete at home and to return to the researcher at the next meeting. This pack included information sheets for both the child and the parent, and a parental consent form (see Appendix 3 for parent and child information sheets and consent forms). The pack also included the Brief Symptom Inventory (BSI; Derogatis, 1993), the Parenting Stress Index (PSI; Abidin, 1990) and the Interpersonal Schema Questionnaire (ISQ; Hill & Safran, 1994) (see section 2.6 later).

A time was then arranged to meet the mother and son together either at their home, or at the primary school, according to their preference. This second meeting was arranged at a suitable time so as to minimise disruption to the child's education. At this meeting, mothers and their sons were administered two interaction tasks, both of which were videotaped by the researcher (see section 2.6.3 for a description of the tasks). The first task involved the child having to solve a number of difficult anagrams in a ten minute time period. The second task involved the mother and child having a five-minute discussion about a recent situation in which the child felt angry. After the first task, participants were debriefed as to the purpose of the task. The dyad were told that the purpose of the task was not to see how well the child could solve word puzzles, but rather it was designed to examine the way in which they interacted during the tasks. Participants were further told that the anagrams were in fact extremely difficult to solve and the child was then given a list of (easy) age-appropriate anagrams to complete to enable them

to feel more positive about themselves. At the end of the meeting, mothers were also given the opportunity to discuss any aspects of the questionnaires that they found difficult, and help was given in filling them in if necessary.

2.6 Measures

2.6.1 Screening questionnaires

Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) (see Appendix 4)

The Strengths and Difficulties Questionnaire (SDQ) is a 25-item behavioural screening questionnaire that asks about both children's strengths and their difficulties. It can be completed by parents, teachers or by young people themselves (if over 11 years old). Only the parent report form was used for this study. The SDQ comprises five subscales: emotional symptoms, conduct problems, hyperactivity, peer problems and prosocial behaviour. All scales except the prosocial behaviour scale are summed to give a total difficulties score.

The parent form of the SDQ asks parents to think about their child's behaviour over the preceding 6 months and to indicate whether each behavioural item has been not true, somewhat true or certainly true of their child in this time period. Examples include, "constantly fidgeting or squirming", "often has temper tantrums or hot temper", and "kind to younger children". The total possible score on each subscale is 10 and each

subscale has a normal, borderline and abnormal score range, as shown in Table 6.

Table 6: *Normal, borderline and abnormal score ranges on the parent completed SDQ.*

SDQ subscale	Normal	Borderline	Abnormal
Total difficulties	0-13	14-16	17-40
Emotional symptoms	0-3	4	5-10
Conduct problems	0-2	3	4-10
Hyperactivity	0-5	6	7-10
Peer problems	0-2	3	4-10
Prosocial behaviour	6-10	5	0-4

The SDQ has been shown to be a reliable and valid screening measure for child psychiatric disorders in a community sample of children aged between five and 15 years (Goodman, Ford, Simmons, Gatward & Meltzer, 2000). In particular, Goodman and colleagues showed that the SDQ is more sensitive to the identification of conduct, hyperactivity, depressive and some anxiety disorders, than to the identification of other types of anxiety disorders, such as specific phobias. Sensitivity is increased when parent report is combined with teacher report. The SDQ also correlates highly with the Child Behaviour Checklist and with the Rutter parent questionnaire (Goodman & Scott, 1999).

Child Behaviour Checklist (4-18 years) – externalising subscale (CBCL; Achenbach, 1991)

(see Appendix 4)

The Child Behaviour Checklist (CBCL) is a 118-item parent report questionnaire that asks about a wide range of child behavioural and emotional problems. The externalising subscale of the CBCL consists of 33 items and includes the syndrome scales designated as delinquent behaviour and aggressive behaviour. Items on these scales include "bragging, boasting", "disobedient at home" and "physically attacks people". A score of 0 is given if the item is not true, 1 if the item is sometimes true and a score of 2 is given if the item is true of the child in this time period. A score of 17 out of a total 66 designates the lower end of the borderline and clinical ranges combined.

The externalising subscale of the CBCL has been shown to have good test-retest reliability in a non-referred sample of children (Achenbach, 1991). CBCL items have also been demonstrated to discriminate significantly between demographically matched referred and non-referred children (Achenbach, 1991). The CBCL is also highly correlated with analogous scales on, for example, the Conners (1973) Parent Questionnaire. Within inpatient groups, the CBCL has been shown to differentiate boys with diagnoses of conduct disorder from children with other diagnoses (see McMahon & Forehand, 1988). Specifically, parents of 6 to 11 year old boys

reported significantly greater problems on the externalising subscale of the CBCL (see McMahon & Forehand, 1988).

2.6.2 Self-report questionnaires

Family, Education, Occupation, and Ethnicity

(see Appendix 5)

The Family, Education, Occupation, and Ethnicity questionnaire is a demographic questionnaire that asks about mothers' age, ethnic group, marital status, education, and occupation.

Interpersonal Schema Questionnaire (ISQ; Hill & Safran, 1994)

(see Appendix 5)

The Interpersonal Schema Questionnaire (ISQ) is a 48-item self-report questionnaire that is designed to measure respondents' interpersonal schemas regarding their own mother (or mother figure), father (or father figure) and close friend or romantic partner. It asks respondents to imagine that they are in a range of situations with the above three significant others and then to specify, firstly, how they expect the other person would react in this situation, and secondly, how much the respondent would like their significant other responding to them in such a way.

The 48 items comprise 16 scenarios (repeated for each significant other), which are based on the 16 segments of Kiesler's Interpersonal Circle (see

Chapter 1). An example is "imagine yourself being friendly and helpful with...". In each situation, respondents are asked how the particular significant other would be likely to respond by choosing one of eight responses (marked A to H). For example, one of these responses is "would be warm or friendly". Respondents are also asked to rate the desirability of each response, or how much they would like each response, on a scale ranging from 1 (undesirable) to 7 (desirable).

The ISQ can be scored in a number of ways. The eight possible responses for each item can be coded (1-8) so that lower overall scores reflect more negative interpersonal expectations of the significant other in question. Desirability ratings are totalled and are used to ascertain how much the respondent would like certain responses or a range of responses from each significant other.

The eight response scores can also be coded to reflect their complementarity. For example, each of the 16 question items has an ideal complementary response from the eight response items. Responses can therefore be coded according to how near or far they are from this complementary response. Low scores on complementarity suggest that the respondent does not expect complementary responses from significant others. The lowest possible total score for each significant other is -14 and the highest possible score is 14.

Although the ISQ has been used with adult populations before, the majority have been university students (e.g. Soygut & Savasir, 2001). For the present study, with the author's permission (J. Safran, personal communication, 10th April, 2003), the language of the questionnaire was simplified so as to be understandable to the participants in this study. The questionnaire was piloted before the study began to determine its acceptability and ease of comprehension. The questionnaire was also amended, with the authors' permission (J. Safran, personal communication, 31st January 2003), to include the participating child as one of the significant others in the questionnaire. Respondents were accordingly asked to imagine themselves in a range of situations with their mother (or mother figure), father (or father figure) and participating child (instead of close friend or romantic partner).

The internal consistency, construct and content validity, and test-retest reliability of the ISQ have been shown to be satisfactory (Hill & Safran, 1994). The ISQ has also been used with individuals at risk for depression to successfully discriminate parental representations related to personality styles (Mongrain, 1998). It has also been used with women who were sexually abused in childhood to successfully discriminate between those who were revictimized as adults and those who weren't (Cloitre et al., 2002). As the ISQ has not been used with regards to mothers' interpersonal expectations of their children, no psychometric data about its use with this population is available. This means that, although it may have face validity, the content and construct validity and reliability of the measure remain to be demonstrated.

Brief Symptom Inventory (Derogatis, 1993)

(see Appendix 5)

The Brief Symptom Inventory (BSI) is a shortened form of the Symptom Checklist-90-R, which is a self-report measure of psychological distress. It comprises 53 items; respondents are asked to rate on a scale ranging from 0 (not at all) to 4 (extremely) the extent to which each problem has distressed or bothered them over the past seven days. Examples of items include "faintness or dizziness", "feeling inferior to others", and "feeling hopeless about the future".

The BSI is used in this study to provide a global measure of mothers' current mood state. Research, outlined in Chapter 1, suggests that mothers of boys with conduct problems have higher levels of, for example, depression. This may affect not only how they interact with their children but also how they appraise their children's behaviour.

The BSI is made up of nine primary symptom dimensions: somatization, depression, anxiety, obsessive-compulsive, interpersonal sensitivity, hostility, phobic anxiety, paranoid ideation, and psychoticism. The BSI also yields three global indices: the Global Severity Index (GSI), the Positive Symptom Total (PST) and the Positive Symptom Distress Index (PSDI). For this study, the GSI was used as it is the single best indicator of current distress levels (Cloitre et al., 2002). The GSI score is obtained by dividing the total score by the number of items completed (53 if all items are filled in).

The BSI has been shown to have good internal consistency and test-retest reliability (Derogatis, 1993). The test-retest reliability coefficient is highest for the Global Severity Index (GSI). The BSI has also been demonstrated to have good discriminant validity and has been shown to successfully discriminate between patient and community samples (Derogatis, 1993).

Parenting Stress Index/Short Form (Abidin, 1990)

(see Appendix 5)

The Parenting Stress Index/Short Form (PSI/SF) is a 36-item self-report questionnaire that asks about the level of parenting stress an individual is experiencing. Respondents are asked to mark the degree to which they agree or disagree with a series of statements by circling a number from 1 (strongly agree) to 5 (strongly disagree) that best matches how they feel. Examples of items include, "I often have the feeling that I cannot handle things very well", "My child rarely does things for me that make me feel good", and "I feel that my child is moody and easily upset".

The PSI is used in this study to provide a measure of parenting stress. As with maternal mood state, level of parenting stress has also been shown to discriminate between mothers of problem and non-problem children. As with maternal mood state, this may affect not only their interactions with their children but also how they appraise their children's behaviour.

The PSI/SF comprises three subscales: parental distress (PD), parent-child dysfunctional interaction (PC-DI), and difficult child (DC). The total stress score is the sum of all of the subscale scores. A total stress score of above 90 indicates that the parent is experiencing clinically significant levels of stress (Abidin, 1990).

The test-retest reliability coefficient for the total stress score for the PSI has been found to be r = .84 (Abidin, 1990). Although the PSI Short Form does not possess a body of independent research supporting its validity, it is highly correlated with the full length PSI for which there is considerable psychometric evidence (Abidin, 1990).

2.6.3 Parent-child interaction tasks

Anagram task (see Appendix 6)

The task used was based on an unsolvable anagram task used by Woodruff-Borden, Morrow, Bourland and Cambron (2002). The task is used to induce a level of frustration so that the quality of parent-child interactions can be measured. For this study, Woodruff-Borden et al.'s (2002) task was amended so that the anagrams used were very difficult to solve instead of unsolvable. The anagrams were specifically chosen so as to be extremely difficult to solve for both the children and their mothers. It was hypothesised that this would be frustrating for the children and their mothers, thereby enabling the researcher to observe in particular how the mother managed this frustration.

Verbal instructions for the anagram task were given to the mothers (in their son's absence), who were told that their son was to try and do the best he could with a list of word puzzles, that the researcher would be back in 10 minutes to see how many they had solved, and that it was okay for the mother to help (see Appendix 6 for instructions given). Mothers were then asked to explain the task to their sons. This task was videotaped.

Anagram task coding

Each 10-minute mother-child interaction was rated on nine global scales measuring the degree of maternal negativity and involvement during the interaction. These scales were adapted from those used by Hudson and Rapee (2001) in their study of mother-child interactions. The global scales consisted of a nine-point continuum ranging from 0 to 8, with 4 representing a neutral point on the scale. The nine global scales measured: i) general mood; ii) mother's affect; iii) mother's tension; iv) response to child; v) general degree of involvement; vi) amount of unsolicited help given by the mother; vii) touching of anagram sheet; viii) mother's position/posture; and ix) mother's focus (child focussed or task focussed). The first four of the above scales together represent a measure of parental negativity during the interaction. The final five scales together represent a measure of parental involvement during the task.

Although the coding used in this study was taken from a study focussing primarily on anxious children and their parents (Hudson & Rapee, 2001), the

dimensions of parental control and negativity are also theoretical constructs that have emerged from the literature on conduct disorders (see Chapter 1).

Interactions were coded by a trainee clinical psychologist who was blind to group membership. A third of the interactions were inter-rated by the researcher. Intraclass correlations were calculated to determine the inter-rater reliability of the two raters. Inter-rater reliability for the negativity factor was very high (ICC = .97). Inter-rater reliability for the involvement factor was also high (ICC = .84). Approximately 30 hours was needed to achieve this level of agreement. Scores on the four negativity scales were totalled to give a single negativity score, and scores on the five involvement scales were totalled to give a single involvement score. High scores on the negativity scales indicate low warmth during the interaction. High scores on the involvement scales indicate that the mother was very involved during the anagram task, whereas low scores indicate that she was under-involved.

Although inter-rater reliability is the most commonly used psychometric assessment for observational measures (Aspland & Gardner, 2003), whether the instrument measures what it is supposed to measure, that is its validity, is also important. Whilst the anagram task has been shown to have concurrent and predictive validity in both anxiety disorders (Woodruff-Borden et al., 2002) and conduct problems (Hudson & Rapee, 2001) it has not as yet been shown whether the observations collected are representative of interactions that typically take place in the home, that is the ecological validity of the measure. This issue will be discussed in more detail in chapter 4.

Discussion task (see Appendix 7)

This five-minute interaction task was based on that used by Hudson and colleagues in their study of anxious children (Hudson, Angelosante, Comer, Robin & Kendall, 2003). This task asks parents and their children to discuss the most recent situation in which the child felt one of three emotions: anxiety, anger and sadness. For the present study, mothers and their sons were only asked to talk about a recent situation in which the child felt angry. This task was chosen to give a more clinically relevant measure of parent-child interaction and one that did not involve the child doing an academic task. However, as with the anagram task, the validity of the task in particular remains to be demonstrated. This will be discussed in chapter 4.

Mothers and their sons were instructed to think of one of the most recent times when the child felt angry. The researcher then obtained a description of the situation to check that the emotion matched the situation and also to check that both mother and son were involved in the situation. Participants were then instructed to talk about this situation for five minutes. A list of questions was given to each dyad to help them to structure their discussion (see Appendix 7).

Discussion task coding

The discussion task was coded according to the manner in which the discussion was conducted rather than the content of the discussion and used the coding scales devised by Hudson (2001). Four separate scales were coded which relate to: i) warmth between mother and child, ii) affect of

parent, iii) involvement of mother, and iv) intrusiveness of mother in the discussion. Each scale ranges from 0 (not at all) to 5 (very). Low scores on the warmth items indicate that the interaction was low in warmth, whilst high scores on the control items indicate that the mother was very involved in the discussion.

The parent's response to negative emotion can also be coded. The coder is instructed to go back through the five-minute interaction and stop the tape at any point at which the child expresses a negative emotion. The coder specifies what the emotion is, how severe the child's distress is (on a scale of 1-5), and reports how the parent responded to that distress, for example, whether they are critical or whether they acknowledge the child's distress. For the purposes of this study, however, this part of the coding system will not be used.

The researcher coded all of the discussion task interactions. A third of the interactions were inter-rated by the trainee clinical psychologist who coded the anagram tasks. Intraclass correlations were calculated to determine inter-rater reliability for the warmth scales (ICC = .80) and for the control scales (ICC = .75). Scores on the two warmth scales were totalled to give a single warmth score, and scores on the two control scales were totalled to give a single control score. Low scores on the warmth scales indicate low warmth during the interaction. High scores on the control scales indicate that the mother was very involved during the anagram task, whereas low scores indicate that she was under-involved.

CHAPTER 3: RESULTS

3.1 Overview

This chapter describes the testing of each research hypothesis. Prior to the main analyses, the screening data are presented followed by preliminary analyses to determine whether the assumptions of the main statistical tests are met. Group differences and correlations between independent variables and the main dependent variables are then presented in order to identify variables to be entered as covariates in the main analyses. Results from the testing of the four research hypotheses are then presented.

3.2 Screening data

Mothers completed two screening questionnaires, the Strengths and Difficulties Questionnaire (SDQ) and the externalising subscale of the Child Behaviour Checklist (CBCL). Table 7 presents the mean scores on each subscale of the SDQ and on the CBCL externalising subscale for the conduct problems group and the comparison group.

The conduct problems group had scores in the normal range on the emotional symptoms, hyperactivity, and prosocial subscales of the SDQ, scores in the borderline range on the peer problems subscale, and scores on the abnormal range of the conduct problems subscale of the SDQ. This group also had scores in the clinical range on the externalising subscale of the CBCL. The comparison group had scores in the normal range on all of the subscales of the SDQ. The differences between the two groups on all

subscales except for the emotional symptoms subscale of the SDQ were significant at the p<.01 level of significance.

Table 7: *Mean SDQ and CBCL subscale scores for each group*

SDQ/CBCL subscale	Conduct problems group (n=16)	Comparison group (n=16)	t (30)	p
	M (SD)	M (SD)		
SDQ emotional symptoms	1.56 (1.20)	0.81 (0.98)	1.92	.064
SDQ conduct problems	6.31 (1.66)	1.06 (1.18)	10.29	.001
SDQ hyperactivity	4.75 (2.14)	1.75 (1.57)	4.51	.001
SDQ peer problems	3 (2.39)	1.06 (1.23)	2.87	.007
SDQ prosocial	6.68 (1.88)	8.87 (1.31)	3.80	.001
SDQ total difficulties	16 (5.27)	4.81 (3.69)	6.94	.001
CBCL externalising	31.93 (9.36)	7.62 (5.63)	8.89	.001

3.3 Preliminary analyses

3.3.1 Distributions

Prior to analysis of covariance (ANCOVA), data were examined to see if they were normally distributed and to ensure that the assumptions of univariate analysis were met. All variables were found to have normal distributions, with the exception of the BSI and the discussion task warmth variables. On examination, these variables were both significantly skewed with one case scoring approximately three standard deviations away from the comparison

group mean on both variables. Square root transformations were performed on both variables with no significant effect.

On closer examination, this single case had scores in the borderline range on the SDQ conduct problems subscale and just below the borderline range on the CBCL externalising subscale. Given that the case was discrepant from the rest of the comparison group in its combination of scores on both the screening measures and the BSI and discussion task total warmth variables, it was taken out from the data set (Tabachnick & Fidell, 2001). Thus the total sample size was reduced to 31. Further analysis of the comparison group data showed that all variables were normally distributed.

Given the small number of mothers in both groups who remembered their own fathers and could imagine themselves in certain situations with them when filling in the ISQ, the data from this part of the ISQ will not be considered further in this study.

3.3.2 Relationships between variables

Within group correlations between all of the main psychological variables are presented in Table 8. As can be seen from the correlations presented, several of the variables relate to each other differently in each of the groups. For example, parenting stress (PSI total) is negatively correlated with maternal negativity in the comparison group but not in the conduct problems group. These issues will be addressed in more detail in the next section.

Also, as would be expected, there is a negative correlation between negativity and warmth. However, the magnitude of the correlation does not warrant collapsing these into one variable. It is also of interest that the involvement and control variables are not correlated. This will be discussed in more detail in the next chapter. The inter-correlations between the ISQ variables will be addressed in section 3.7 below.

3.3.3 Covariates

It is important to identify and control for the effect of certain variables on the dependent variables for two main reasons: firstly, to correct for the effect of any group differences; and secondly, to reduce error variance in the dependent variables.

Although the two groups were matched as far as possible, the groups were compared on all of the main demographic data as well as on psychological distress and parenting stress. As would be predicted on theoretical grounds, the two groups differed in particular with regards to mothers' education, with mothers in the comparison group being more highly educated than mothers in the conduct problems group ($\chi^2(10) = 22.32$, $p = .0001$). The groups were not significantly different on the other main demographic variables.

Table 8: *Within group correlations (top right portion = comparison group, bottom left = conduct problems group)*

	BSI total	PSI total	Negativity	Involve-ment	Warmth	Control	ISQ1 mother[a]	ISQ2 mother[b]	ISQ3 mother[c]	ISQ1 child[a]	ISQ2 child[b]	ISQ3 child[c]
BSI total	-	.65*	-.32	.20	.01	-.33	-.52*	.06	-.64*	-.31	.06	-.45
PSI total	.24	-	-.57*	-.29	.16	-.13	-.11	.28	-.29	-.10	.35	-.46
Negativity	-.09	-.15	-	.45	-.54*	.29	-.22	-.16	-.06	-.08	-.01	.29
Involvement	-.25	-.21	.38	-	-.27	.14	-.55*	-.19	-.48	-.37	-.19	-.16
Warmth	.06	.15	-.62*	.02	-	-.50	.16	.19	.32	.02	-.15	.21
Control	.23	-.04	.06	-.17	-.33	-	.20	.03	.19	-.08	.47	-.06
ISQ1 mother[a]	.01	.07	.11	-.04	-.10	-.19	-	-.07	.82**	.52*	-.01	.46
ISQ2 mother[b]	-.06	-.36	.26	.45	-.06	.07	-.05	-	.29	-.65*	.55*	-.23
ISQ3 mother[c]	.04	-.18	.41	-.07	-.27	.10	.78**	-.04	-	.15	.12	.54*
ISQ1 child[a]	.32	-.05	-.38	-.32	.05	.49	.01	-.15	-.08	-	-.57*	.42
ISQ2 child[b]	-.22	-.19	.09	.05	-.28	.37	-.46	-.03	-.33	.22	-	-.43
ISQ3 child[c]	.15	-.41	.03	-.09	-.08	.41	.17	-.23	.46	.57*	.26	-

Note: For the ISQ variables, [a] refers to the expected responses (from either mother or child), [b] refers to the complementarity of these responses, and [c] refers to the desirability of these responses. Correlations marked with a * are significant at the p<.05 level of significance. Correlations marked with a ** are significant at the p<.01 level of significance.

As was predicted on theoretical grounds, mothers in the two groups also differed on both overall level of psychological distress, as measured by the Brief Symptom Inventory (BSI) and level of parenting stress, as measured by the Parenting Stress Index (PSI); see Table 9. Mothers in the conduct problems group obtained mean scores on the PSI above the clinical cut-off score of 90. Mothers in the conduct problems group also had higher levels of psychological problems than mothers in the comparison group.

Table 9: *Mean scores for each group (mothers) on the BSI and PSI*

Measure	Conduct problems group (n = 16)	Comparison group (n = 15)	t (29)	p
	M (SD)	M (SD)		
BSI global severity index	1.09 (0.89)	0.21 (0.18)	3.84	.001
PSI total stress score	95 (20.50)	58.86 (14.56)	5.62	.001

Although the two groups differed on these independent variables, the main criterion for ANCOVA is whether or not covariates correlate with the dependent variables. ANCOVA assumes that the strength of the relationship between the dependent variables and the covariate are the same in the two groups being compared (homogeneity of regression). In order to check for this, correlations were computed separately for each group. Although the number of correlations increases the Type I error rate, this has not been

corrected for as an increase in Type I error in this case means an increase in the conservativeness of the hypothesis testing.

Although there were group differences relating to BSI and PSI total scores, these variables were only correlated with a minority of the dependent variables of interest (see Table 8). The BSI was negatively correlated with the expected responses from mother on the ISQ (ISQ mother responses) in the comparison group but not in the conduct problems group. The BSI total score was also negatively correlated with the desirability of expected responses from mother (ISQ mother desirability) in the comparison group but not in the conduct problems group. The PSI total score was negatively correlated with negativity in the comparison group but not in the conduct problems group.

Although these correlations should be interpreted with caution due to the small sample size, they suggest that for the mothers in the comparison group only, a more positive maternal mood state and lower levels of parenting stress are associated with more positive interpersonal schemas regarding one's own mother and one's child, and also with less negative parenting behaviour.

Mothers' education was the only demographic variable on which groups differed. However, education was not correlated with any of the main dependent variables. Although no group differences were found on any of the other demographic variables, within group correlations were computed to

ascertain if they were associated with any of the main dependent variables. There were no other significant correlations between the other demographic variables and the main dependent variables.

3.3.4 Summary

In identifying covariates, the preliminary analyses have highlighted the possibility of a lack of homogeneity of regression between covariates and the main dependent variables outlined in the two groups. The assumption of homogeneity of regression can be tested by looking at interactions between the covariates and between-group factors (group). If the interaction is significant, then this suggests that there is heterogeneity of regression. ANCOVA will be used to test the hypotheses where there are independent variables that correlate with the main dependent variable and where the assumption of homogeneity of regression has been met. Where there are no covariates or where there is heterogeneity of regression, t tests or regression analysis will be used. This will be discussed in further detail when interpreting the results of the main analyses.

3.4 Hypothesis 1: Parenting behaviour

The first hypothesis was that the two groups, the conduct problems group and the comparison group, would differ in parenting behaviour. Specifically, the mothers of children with conduct problems were hypothesised to show more negativity and less warmth in their interactions with their children, and either an overly controlling or overly submissive style of parenting behaviour.

Table 10 shows the mean scores for each of the parenting variables, two for the anagrams task (negativity and involvement) and two for the discussion task (warmth and control).

Table 10: *Mean scores for parenting variables*

	Conduct problems group (n=16)	Comparison group (n=15)
Negativity [a]	17.50 (6.57)	10.40 (6.70)
Involvement [b]	23.56 (7.17)	23.86 (5.87)
Warmth [c]	4.93 (2.26)	7.86 (1.12)
Control [d]	6.50 (2.30)	6.33 (1.54)

Note: [a]scores on this variable could range from 0 to 32, with high scores indicating high negativity
[b]scores on this variable could range from 0 to 40, with high scores indicating overinvolvement and low scores indicating underinvolvement
[c]scores on this variable could range from 0 to 10, with low scores indicating low warmth
[d]scores on this variable could range from 0 to 10, with low scores indicating low control

3.4.1 Negativity

Mothers were observed interacting with their sons whilst doing an anagrams task. As regards the negativity of these interactions, mothers in the conduct problems group had a higher overall mean negativity score than the comparison group. Analysis of covariance showed that there was a significant main effect of group after controlling for the effects of parenting stress on maternal warmth, as shown in table 11.

Table 11: *Analysis of covariance of maternal negativity*

Source of variance	SS	df	MS	F	p
PSI total	130.97	1	130.97	3.19	.085
Group	480.92	1	480.92	11.74	.002
Error	1146.63	28	40.95		
Total	7800.00	31			

These results support the hypothesis that mothers in the conduct problems group would show greater negativity in their interactions with their sons during the anagrams task than mothers in the comparison group.

3.4.2 Warmth

For the discussion task, a total warmth score was generated by combining the score of overall warmth between mothers and their sons, and the separate warmth score based on the mother's behaviour only (see Chapter 2). Mother-son pairs in the conduct problems group had lower overall warmth scores in the discussion task than mother-son pairs in the comparison group (see Table 10). T test showed that there was a significant difference between the two groups in warmth ($t(29) = 4.51$, $p = .001$). These results support the hypothesis that mothers and their sons in the conduct problems group would be less warm in their interactions than mothers and their sons in the comparison group.

3.4.3 Involvement and control

Involvement and control were measured in the anagrams task and the discussion task. The two variables were not combined because they were not correlated in either group (see section 3.3.2). Examination of mothers' involvement during the anagrams task showed that mothers in the conduct problems group had an overall mean score similar to that of mothers in the comparison group (see Table 10). T test showed that there was not a significant difference between the two groups in maternal involvement ($t(29) = .129$, $p = .899$). These results suggest that mothers in both groups were appropriately involved in the anagrams task (a total score of 40 indicating overinvolvement). They do not support the hypothesis that there would be a difference between the two groups on the level of maternal involvement in the anagrams task.

For the discussion task, a total control score was generated combining the score of overall maternal intrusiveness and the control score based on the mother's behaviour only (see Chapter 2). There was not a significant difference between the two groups in control ($t(29) = .153$, $p = .816$). The mean scores show that mothers in both groups were neither overinvolved nor underinvolved in their discussions with their sons (see Table 10).

3.5 Hypothesis 2: Child-related schema content

The second hypothesis stated that mothers of children with conduct problems would have more negative interpersonal schemas regarding their child than

mothers of children with no significant problems. It was specifically hypothesised that they would:

(a) anticipate more hostile, mistrusting, distant and controlling responses from their child (and conversely, less trusting, friendly, interested and submissive responses)

(b) anticipate less complementary responses from their child (i.e. if they are dominant, their child will be dominant; if they are friendly, their child will be hostile)

(c) rate their child's responses as less desirable

Given that there were no correlations between any of the independent variables and the dependent variables, t tests were used to test this hypothesis.

Table 12: *Mean scores for ISQ child responses, desirability and complementarity.*

ISQ subscale	Conduct problems group (n=16)	Comparison group (n=15)	t(29)	p
	M (SD)	M (SD)		
ISQ child responses [a]	73.81 (8.70)	87.93 (12.64)	3.64	.001
ISQ child complementarity [b]	4.01 (2.67)	4.56 (2.86)	.55	.584
ISQ child desirability [c]	61.75 (18.53)	83.26 (14.01)	3.62	.001

Note: [a] scores on this variable could range from 16 to 128, with lower scores indicating more negative responses
[b] scores on this variable could range from –14 to +14, with higher scores indicating higher complementarity of expected responses
[c] scores on this variable could range from 16 to 112, with lower scores indicating that the responses are less desirable

As shown in Table 12, mothers in the conduct problems group had significantly lower scores on the responses they expected from their child (ISQ child responses) than mothers in the comparison group. These results suggest that, as hypothesised, mothers in the conduct problems group anticipated more hostile, mistrusting, distant and controlling responses from their sons (and conversely, less trusting, friendly, interested and submissive responses) than mothers in the comparison group.

As shown in Table 12, the two groups did not significantly differ on the complementarity of expected responses from child (ISQ child complementarity). The mean scores suggest that both groups of mothers neither anticipated total non-complementarity of responses (represented by a total score of -14) or total complementarity (represented by a total score of 14).

Finally, as shown in Table 12, mothers in the conduct problems group overall rated the anticipated responses from their children as significantly less desirable than mothers in the comparison group. These results support the hypothesis that mothers in the conduct problems group would rate their expected responses of their children as less desirable than mothers in the comparison group.

3.6 Hypothesis 3: Mother-related schema content

The third hypothesis stated that mothers of children with conduct problems would have more negative interpersonal schemas regarding their own mother than mothers of children with no significant problems. It was specifically hypothesised that they would:

(a) anticipate more hostile, mistrusting, distant and controlling responses from their mother (and conversely, less trusting, friendly, interested and submissive responses)

(b) anticipate less complementary responses from their mother (i.e. if they are dominant, their mother will be dominant; if they are friendly, their mother will be hostile)

(c) rate their mother's responses as less desirable

Table 13: *Mean scores for ISQ mother responses, desirability and complementarity.*

ISQ subscale	Conduct problems group (n=16)	Comparison group (n=15)
	M (SD)	M (SD)
ISQ mother responses [a]	77.87(16.87)	85.06 (24.04)
ISQ mother complementarity [b]	2.14 (3.25)	2.95 (2.05)
ISQ mother desirability [c]	67.06 (28.48)	75.26 (31.38)

Note: score ranges for all three variables correspond to the score ranges for [a], [b] and [c] in Table 12 above.

Analysis of covariance showed that the main effect of group regarding total ISQ mother responses was not significant ($F(1,27) = 3.985$, $p = .056$), after

controlling for the effects of maternal mood state as measured by the BSI. However, the interaction between BSI and group was significant ($F(2,27) = 5.689$, $p = .024$) raising the issue of heterogeneity of regression, outlined earlier. Regression analysis, using group, BSI and the interaction between group and BSI as predictors, was therefore used to test this hypothesis. However, the overall model was not significant ($F(3,27) = 2.31$, $p = .099$) indicating that there was not a significant difference between the groups in expected responses from mother (ISQ mother responses).

As regards the complementarity of expected responses from mother (ISQ mother complementarity), there was not a significant difference between the two groups ($t(29) = .821$, $p = .418$).

In order to test the hypothesis that mothers in the conduct problems group would rate their expected responses of their mother as less desirable than mothers in the comparison group, analysis of covariance was used. However, as earlier, there was a significant interaction between group and BSI ($F(2,27) = 7.718$, $p = .010$) indicating heterogeneity of regression, even though there was a main effect of group after controlling for the effects of maternal mood state as measured by the BSI ($F(1,27) = 4.646$, $p = .040$). When regression analysis was used, using group, BSI and the interaction between group and BSI as predictors, the overall model was not significant ($F(3,27) = 2.847$, $p = .056$). These results suggest that there was not a significant difference between the two groups in the desirability of expected responses of mother (ISQ mother desirability).

3.7 Hypothesis 4: Schema repetition

The fourth hypothesis was that there would be a relationship across the two groups of mothers between interpersonal schemas regarding their own mother and interpersonal schemas regarding their child. It was hypothesised that mothers would expect the same kinds of responses from both their own mother and their child.

Whole group correlations showed that ISQ mother responses and ISQ child responses were moderately correlated ($r = .38$, $p = .034$). The rated desirability of these responses (ISQ mother desirability and ISQ child desirability) was also correlated ($r = .48$, $p = .006$).

However, within group correlations suggest that there are group differences in the strength of relationship between expected responses from mother and expected responses from child. The within group correlations (shown in Table 8) suggest that mothers in the comparison group who expected positive interpersonal responses from their own mothers also tended to expect positive interpersonal responses from their sons ($r = .52$, $p = .047$). Mothers in this group who rated their mothers' responses as desirable also tended to rate their sons' responses as desirable ($r = .54$, $p = .038$). In the conduct problems group, by contrast, mothers' anticipated interpersonal responses from their own mothers and their sons were not significantly correlated ($r = .01$, $p = .969$). The correlation between mothers' desirability ratings regarding the anticipated responses of their mothers and their sons

was also not significant ($r = .468$, $p = .068$). However, due to the small sample size these correlations need to be interpreted with caution.

These results do not support the hypothesis that mothers in the conduct problems group would anticipate similar responses from their own mothers and their sons. Indeed, they suggest it is mothers in the comparison group who not only anticipate more positive responses from their own mothers but also similar responses from their sons.

3.8 Hypothesis 5: Relationship between schemas and parenting behaviour

The fifth hypothesis stated that the differences between the two groups in parenting behaviour would be accounted for by the differences between the groups in child-related interpersonal schemas.

Although this is an important hypothesis to be tested, the within group correlations shown in Table 8 suggest that there is not a relationship between child schemas (ISQ child responses or ISQ child desirability) and parenting behaviour (specifically negativity and warmth) in either the conduct problems group or the comparison group. Therefore no further analyses were conducted.

These results do not support the hypothesis that the differences between the two groups in parenting behaviour would be accounted for by the differences between the two groups in child-related interpersonal schemas.

3.9 Summary of results

As hypothesised, mothers of boys with conduct problems showed higher negativity and less warmth in their interactions with their sons than mothers in the comparison group. There were no differences in parental involvement or control between the groups on either of the parent-child interaction tasks.

Also, as hypothesised, mothers in the conduct problems group anticipated more hostile responses from their sons, as measured by the ISQ, than mothers in the comparison group. Further, mothers in the conduct problems group also rated the expected responses of their sons as less desirable than mothers in the comparison group. No differences were found between the groups, however, in the complementarity of these responses.

The hypothesis that mothers in the conduct problems group would anticipate more hostile responses from their own mothers, as measured by the ISQ, than mothers in the comparison group was not supported. For the comparison group, lower psychological distress was associated with more positive interpersonal schemas, whereas in the conduct problems group, psychological distress and parenting stress were not associated with schema content.

The hypothesis that mothers in the conduct problems group would rate the expected responses of their mothers as less desirable and complementary than mothers in the comparison group was also not supported. Again, a relationship was found only in the comparison group between maternal mood

state and desirability ratings, with more positive maternal mood being associated with more desirable responses.

The hypothesis regarding schema repetition was partially supported. However, contrary to expectations, the results suggest that it is in fact mothers in the comparison group who tended to expect similar responses from both their own mothers and their sons. Whilst mothers in the conduct problems group anticipated more negative responses from both, no relationship was found between these two variables.

Finally, the hypothesis that the difference between the two groups in parenting behaviour (maternal negativity and warmth only) would be accounted for by the differences between the two groups in interpersonal schemas (regarding one's child) was not supported.

CHAPTER 4: DISCUSSION

4.1 Overview

This chapter will discuss the main results of the present study according to each research hypothesis and relate these findings to the relevant literature. The methodological limitations of the study will then be presented, followed by a review of the implications of the results for research and clinical practice.

4.2 Main findings

The purpose of this study was to examine whether mothers of boys with conduct problems and mothers of boys with no significant problems have different interpersonal schemas which influence their parenting behaviour. The sample comprised 16 mothers and their 7 to 11 year old sons who had conduct problems, and a comparison group of 15 mothers and their sons without conduct problems. Mothers completed a series of questionnaires that measured parenting stress, psychological problems and interpersonal schemas (relating to their own mothers and to their sons). Mother-son dyads then completed two interaction tasks designed to measure maternal negativity, involvement, warmth and control.

As hypothesised, mothers of boys with conduct problems engaged in more negative and less warm parenting behaviour with their sons than mothers of boys with no significant problems. However, the hypothesis that mothers would differ between the two groups in maternal control and involvement was not supported. Also, as predicted, mothers of boys with conduct problems

had more negative interpersonal schemas relating to their sons than mothers in the comparison group. These mothers also rated the anticipated behaviour of their sons as less desirable than mothers in the comparison group. However, no differences were found in the complementarity of their responses. There were also no differences found between the groups on mother-related interpersonal schemas. The hypothesis that mothers across the two groups would expect the same interpersonal responses from their own mothers and their sons was partially supported. However, no relationship was found between interpersonal schemas and parenting behaviour. These results will be discussed in more detail in the following sections.

4.2.1 Parenting behaviour

The first hypothesis was that there would be differences between the two groups in parenting negativity, warmth, control and involvement. This hypothesis was partially supported. On both of the parent-child interaction tasks, mothers of boys with conduct problems had a more negative and less warm style of interacting than mothers in the comparison group across two parent-child interaction tasks. However, there were no differences found between the two groups in maternal control and involvement.

The differences found in maternal negativity and warmth are consistent with the findings from previous research showing that the interactions between mothers and their oppositional defiant children are more hostile and negative than those of mothers and their non-clinical children (Hudson & Rapee, 2001;

Patterson & Stouthamer-Loeber, 1984; Webster-Stratton, 1985). The findings from this study are also consistent with the findings from attachment research which show that mothers of children with conduct problems are less likely to be responsive to their children's emotional state than mothers of children without any significant problems (Edelstein et al., 2004).

However, although parental sensitivity has a central role in attachment theory, one of the aims of this study was to examine its relationship with other aspects of parent-child interactions that have been so comprehensively studied within a social learning theory framework, such as parental control (Patterson, 1982). Given the wealth of previous research in this area, the lack of a difference between the groups in maternal involvement and control in this study is unexpected. Although the evidence from previous research is mixed as to whether mothers of children with conduct problems are overinvolved or underinvolved in their interactions with their children (Gardner, 1989; Mills & Rubin, 1998), the findings from the current study suggest that mothers in both groups were appropriately involved in both the anagrams task and the discussion task.

There are many reasons that one could speculate might account for the absence of a significant difference regarding parental control in this study. This null finding may represent a problem with statistical power resulting from the small sample size. If this is the case, this finding might indicate that the effect size is smaller than was anticipated.

The lack of difference may also relate to the wider issue of causality. With no measure of child behaviour or cognitions in this study, it is impossible to say whether or not the same parenting behaviours may have performed different functions and elicited different child responses in the two groups. Davis et al.'s (2002) model of parent-child interactions suggests that children's behaviour has a key role to play in the subsequent behaviour of their parents. For example, Patterson's (1982) research suggests that positive strategies used reactively by mothers during conflict with their children serve to reinforce child difficult behaviour. Indeed, research suggests that it is still not clear whether in fact it is child behaviour or temperament that elicits negative parenting (Lahey et al., 1999). It is clear that longitudinal studies are needed to unravel the precise direction of effects.

It could also be argued that mothers in both groups were appropriately involved in the two tasks because, although designed to be frustrating for the children, the tasks were in fact also very frustrating for the mothers. Although education was not associated with any of the parenting behaviour variables in this study, one could speculate that, for mothers in the conduct problems group especially, their inability to help their sons with the difficult anagrams may have had the effect of levelling the power imbalance that is perhaps normally a feature of their day-to-day interactions.

This raises the further issue of the kinds of control behaviours measured in this study. In their study of parental control and childhood aggression and social withdrawal, Mills and Rubin (1998) highlight the difference between

"behavioural" and "psychological" control. Behavioural control focuses on the child's behaviour and involves the provision of structure, clear and consistent rules, and predictable contingencies for the child's behaviour. By contrast, psychological control relates to negative parenting behaviours that invalidate or constrain a child's emotional experience and expression; it involves behaviours that "interfere with the development of autonomy through excessive personal control (overprotectiveness, possessiveness) or threats to security and self-esteem (devaluation, disinterest, shaming, love withdrawal, isolation)" (Mills and Rubin, 1998, p.133).

It could be argued that the maternal involvement and control measured in this study actually relate to behavioural control rather than psychological control. Interestingly, the negativity and warmth constructs might also relate more to psychological control, including as they do hostility and threats to self-esteem. The findings of Chang, Schwartz, Dodge and Chang (2003), in their study of the relationship between harsh parenting and child emotion regulation and aggression, support this distinction in that harsh parenting can be viewed not only as a form of behaviour, but also as a form of affect communication. They argue that its effects on children can either occur through behavioural modelling or indirectly through emotional dysregulation.

Although the effect of parental control is not clear in the absence of a measure of the children's behaviour during the parent-child interaction tasks, and in light of some of the difficulties in defining and measuring parenting behaviours (discussed in more detail in section 4.3), what is clear is that

there are differences in parenting behaviour between mothers of boys with conduct problems and mothers of boys with no significant problems. These findings lend some support to Patterson et al.'s (1989) assertion that families of antisocial children are characterised by little *positive* parental involvement; that is, it may not be the amount of control that mothers of boys with conduct problems exert that it is important, but rather the affective quality of that control.

4.2.2 Child-related interpersonal schemas

The second hypothesis, that mothers of boys with conduct problems would have more negative interpersonal schemas regarding their sons than mothers in the comparison group, was largely supported. Mothers in the conduct problems group anticipated more hostile, mistrusting, distant and controlling responses from their sons and conversely, less trusting, friendly, interested and submissive responses. These mothers also rated the anticipated responses of their sons as less desirable than the anticipated responses of mothers in the comparison group. However, the hypothesis that mothers in the conduct problems group would anticipate less complementary responses from their child (i.e. if they are dominant, the child will be dominant; if they are friendly, the child will be hostile) was not supported.

Given that interpersonal schemas have not been examined before in this context, these findings are of interest and may help to explain how conduct problems are maintained. For example, although previous research has

shown that children with conduct problems have hostile attributional biases (Dodge, 1993), this study suggests that their mothers may also anticipate hostility in their interactions with their child. One can speculate how this may contribute to the development of a negative "cognitive-interpersonal cycle" (Safran, 1990a) with the parent selectively interpreting the behaviour of their child as hostile and responding to this perceived hostility with hostility, thereby eliciting hostile behaviours from their child.

Indeed, one could argue that the negative interpersonal schemas of mothers of boys with conduct problems lead them to appraise their sons' behaviour negatively which in turn means that they are more likely to selectively attend to and monitor only those behaviours that confirm their negative constructions regarding their child (see Davis et al., 2002). In this way, as Safran (1990a) has argued, interpersonal schemas guide both mothers' constructions and perceptions of their children.

The findings from the current study also indicate that mothers of boys with conduct problems do not like the expected responses of their sons. This is, perhaps, not surprising given the level of mother-reported behaviour problems in the conduct problems group. Of interest, however, is that this was not related to either perceived parenting stress or maternal mood state. One would imagine that mothers who anticipate such undesirable interpersonal responses from their sons would not only be distressed by this but would also hold negative cognitions regarding their own role as parents (see Dix, 1991; Krech & Johnston, 1992). That this was not the case in the

current study is consistent with Baden and Howe's (1992) finding that parents of aggressive children are more likely to attribute problematic child behaviours to factors that are global, stable and internal to the child, rather than to factors relating to the self. It could also be the case that mothers are not distressed by the fact that they do not like their sons' behaviour because it has become a usual part of their daily interactions.

However, interpersonal schema theory posits that interpersonal schemas serve the function not only of guiding behaviour, but also of maintaining affective attachment-based bonds between self and significant other. Although it would seem counterintuitive, it could be argued that mothers of boys with conduct problems develop and maintain negative interpersonal schemas because they are the most effective means of predicting interactions with significant others and therefore of maintaining relatedness, no matter how unsatisfying this relatedness may be. For example, if parents have interpersonal schemas about sadness threatening interpersonal relatedness, then they may fail to fully process behaviours consistent with these emotions.

However, this interpretation of the results is contingent on one's conceptualisation of the parent-child relationship and the findings from the current study raise interesting issues about how to conceptualise the relationship between parents and their children. As outlined in Chapter 1, there is much debate as to whether mothers' relationships with their children are attachment relationships, that is whether mothers base their security in

their relationships with their child (Ainsworth, 1989). One of the theoretical foundations of the current study is that mothers do strive to maintain relatedness to their children and so develop interpersonal schemas that enable them to predict and anticipate their behaviour (Safran, 1990a, 1990b; Safran & Segal, 1990). However, according to Ainsworth's (1989) classification, interpersonal schemas should not be activated in the context of parent-child relationships because they are not attachment relationships.

Although interpersonal schemas have not been examined before in the context of parent-child relationships, the findings from the current study suggest that mothers of boys with conduct problems do indeed have negative interpersonal schemas that may be active in their relationships with their children. These findings lend some support to Edelstein et al.'s (2004) assertion that individuals' caregiving and attachment styles may be closely related, and particularly in anxiety-producing situations. One could argue that these results suggest that through a history of negative interactions with their sons, mothers of boys with conduct problems develop negative interpersonal schemas that, although negative, may have become the only mental map that they have in order to maintain relatedness with their sons.

What is less clear from the current study is the role of complementarity in the development and maintenance of interpersonal schemas regarding one's child. According to Kiesler (1983), complementary behaviours are fundamental to healthy interpersonal relationships. Reciprocity with regards to affiliative behaviours and opposite behaviours with regard to control are

thought to be complementary. Although Orford (1986) has subsequently criticised the concept of complementarity, he suggests that control behaviours in particular are more likely to be complementary where there is a power imbalance, such as in mother-child dyads.

The absence of a difference in the complementarity of mothers' anticipated responses from their sons in the current study does not support this hypothesis and indeed the findings relating to maternal control suggest that the issue of control may be more complicated than anticipated. Indeed, the scores obtained with regards to complementarity in both groups suggest that relative non-complementarity may be a feature of mother-son relationships, or more specifically relationships between mothers and their primary school age sons. That is, it may be a normal part of 7 to 11 year old boys' development to challenge parental authority by meeting dominance with dominance rather than with submission.

Although interpersonal schema theory has not been brought to the subject of parent-child relationships, the theory posits that healthy interpersonal schemas are maintained on the principle of complementarity (Hill & Safran, 1994). The current study, however, suggests that even in non-problem mother-son dyads, child-related interpersonal schemas may be maintained in other ways in the absence of complementarity. However, this could also reflect the fact that, as Orford (1986) has argued, interpersonal complementarity may be affected by a number of factors, including gender and status. Future studies could examine whether or not this is gender and

age specific by comparing mother-son with mother-daughter relationships, and by comparing parent-child relationships to other kinds of relationships, for example.

4.2.3 Mother-related interpersonal schemas

Interpersonal schema theory is based on the premise that interpersonal schemas are developed in childhood through early interactions with attachment figures and can become maladaptive if rigidly applied to current relationships (Safran, 1990a, 1990b). The third hypothesis was that mothers of boys with conduct problems would hold more negative interpersonal schemas regarding their own mothers than mothers in the comparison group. However, the findings did not support this hypothesis. Although the trend was towards mothers in the conduct problems group having more negative interpersonal schemas regarding their own mothers, no significant differences were found regarding the negativity, desirability or complementarity of these anticipated responses. Again, these null findings may relate to insufficient statistical power and may suggest that the effect size was smaller than anticipated.

These results do not support the findings from attachment research which suggest that mothers of children with conduct problems are more likely to have insecure attachment histories (Cohn et al., 1992; Crowell et al., 1991; Crowell & Feldman, 1988). However, this inconsistency may be due to differences in the measurement of attachment security and interpersonal schemas. The absence of a difference between the two groups in the

complementarity of anticipated responses from one's own mother is also of interest, as this does not support previous research in interpersonal schemas. For example, Soygut and Savasir (2001) found that depressed students expected less complementary responses from significant others than non-depressed students. Although in the current study it is clear that mothers in the conduct problems group had higher levels of psychological distress, this was not related to the complementarity of their expected responses from either their child or their own mother.

The relationship between psychological distress and mother-related schema is of interest in this study. In the comparison group only, higher levels of psychological distress were associated with more negative interpersonal schemas regarding one's own mother. In the conduct problems group, by contrast, there was no relationship found between these variables. As with parenting stress, it may be that in the conduct problems group mothers' anticipated responses of their own mothers may be independent of current levels of both psychological distress and parenting stress. As outlined earlier, this does not support previous research regarding the relationship between personal adjustment factors and child behaviour problems (Krech & Johnston, 1992; Webster-Stratton, 1988; Webster-Stratton & Hammond, 1990).

4.2.4 Schema repetition

The fourth hypothesis was that there would be a relationship between mothers' expected responses of their own mothers and the expected responses of their sons. That is, it was anticipated that negative interpersonal schemas regarding early attachment figures would be repeated in current attachment relationships. This hypothesis was partially supported. However, contrary to expectations, the results indicate that it was mothers in the comparison group who were more likely to have similar interpersonal schemas regarding their mothers and their sons, and not mothers in the conduct problems group.

The lack of schema repetition in the conduct problems group is surprising given the evidence for schema repetition from studies looking at interpersonal schemas (e.g. Mongrain, 1998). For example, early parent-child interactions have been shown to shape one's expectations and behaviours in new social encounters (Mongrain, 1998). According to interpersonal schema theory (Safran, 1990a, 1990b), and other social schema theories (see Gomez et al., 2001), psychologically healthy individuals will expect a range of different responses from significant others, whereas psychologically distressed individuals will have more rigid, inflexible interpersonal schemas regarding early and current significant others. According to Safran (1990a), this is because less psychologically healthy individuals expect interpersonal relatedness to be difficult to obtain and believe that a wide range of feelings and actions present potential threats to interpersonal relatedness. Therefore, interpersonal expectations become

narrow and rigid. However, what has not been examined before is whether or not such early interactions shape current child-related interpersonal schemas and interactions.

The results from the current study do not lend support to this theory. Contrary to expectations derived from interpersonal schema research and attachment research (see van IJzendoorn, 1995), it was the mothers in the comparison group, with lower levels of psychological distress and parenting stress, who anticipated similar responses from both their own mother and their sons. One could argue that healthy schema repetition is adaptive. For example, it is clear that positive interpersonal schemas relating to early attachment figures could be protective in the context of parenting one's own children. Although this has not been examined in the context of parent-child relationships, research in interpersonal schemas suggests that significant-other representations influence perceptions and inferences made in new encounters (Mongrain, 1998). One could argue that mothers of children with no significant problems, who also have healthy interpersonal expectations of significant others, will behave with their children in ways that are consistent with these other schemas. These healthy interpersonal representations regarding early attachment figures may also be protective in the event that their own children develop difficulties.

However, that more mixed interpersonal schemas regarding one's mother, as in the conduct problems group, do not generalise to one's current relationship with one's child is of interest. One possible explanation for the absence of

schema repetition in the conduct problems group is that the process of schema repetition may be complicated by, for example, gender factors. Although beyond the scope of the current study, one could speculate that the fact of being a single mother, as most of the mothers were in the conduct problems group, influences how mothers then interact with their sons. It is also notable that mothers in the conduct problems group in particular also could not remember their own fathers. Research suggests that children's relationships with their non-resident fathers are related to their relationships with their mothers (Dunn, Cheng, O'Connor & Bridges, 2004). One could also argue that single mothers' relationships with their absent partners might influence both their expectations of and behaviour towards their sons.

A possible explanation, therefore, for the lack of schema repetition in the conduct problems group is that other current relationships with significant others, such as romantic partners, may have mediated the relationship between mother-related interpersonal schemas and child-related interpersonal schemas. For example, in the area of attachment research, van IJzendoorn (1995) describes how the link between early attachment experiences and adult attachment relationships can be disrupted by attachment experiences with, for example, a partner or therapist. For example, an early insecure attachment representation may be reconstructed through these positive later experiences. However, little is known about whether early secure representations, for example, might be disrupted by later negative experiences, including relationships with partners and also parenting experiences with other children.

In relation to this issue, Edelstein et al. (2004) argue that attachment measured in the context of romantic relationships is related to attachment behaviour in the context of parent-child relationships. They write that this suggests "individuals may have similar internal working models, and hold similar beliefs about attachment, across relationship domains" (p.47). For example, in their study of adult attachment style and parental responsiveness during a stressful medical procedure (undergone by the child) they found that parents who reported difficulty being depended upon by romantic partners were observed to have a similar difficulty being depended upon by their children during the medical procedure. They speculate that the "source of this similarity may be an individual's comfort with serving as an attachment figure" (p.47). Future studies could assess mothers' schemas regarding romantic partners or close friends (as usually assessed by the ISQ) in order to further examine this relationship. Future studies could also examine the relationship between interpersonal schemas regarding fathers and those regarding sons. Examination of this relationship was not possible in the current study due to the small numbers of mothers who could remember their own fathers.

4.2.5 Relationship between interpersonal schemas and parenting behaviour

The fifth hypothesis was that there would be a relationship between child-related interpersonal schemas and parenting behaviour. This hypothesis was not supported. Although differences were found between mothers of boys with conduct problems and mothers in the comparison group in levels of

negativity and warmth and in child-related interpersonal schemas, no relationship was found between these variables.

The lack of a relationship between maternal negativity and warmth and child-related interpersonal schemas is inconsistent with the findings from both attachment research and research looking at parental cognitions (Beauchaine et al., 2002; Bugental & Johnson, 2000; Cohn et al., 1992; Crowell et al., 1991; Crowell & Feldman, 1988). For example, Crowell et al. (1991) found a relationship between mothers' conceptualisations of parent-child relationships, mother-child interaction and child behaviour problems. This inconsistency may suggest that the effect size in the current study was smaller than anticipated and that larger sample sizes are needed to detect such an effect.

However, interpersonal schemas have not been examined before in the context of parent-child interactions and childhood onset conduct problems. One interpretation of the lack of a relationship between schemas and parenting could then be that, unlike parental attributions (Baden & Howe, 1992) and cognitive response repertoires (Beauchaine et al., 2002), child-related interpersonal schemas are not the right kinds of cognitions to be examining in this context. However, it could also be argued that the relationship between interpersonal schemas and parenting behaviour is not a linear one as was predicted in Chapter 1. Indeed, the findings raise important questions regarding both the aetiology of maternal warmth and

negativity, and also regarding the potential pathway(s) through which negative child-related interpersonal schemas relate to parenting behaviour.

As regards the aetiology of maternal negativity and warmth, the absence of an association between the socio-demographic variables measured in this study and the parenting variables rules out the interpretation that parenting behaviour is related to psychosocial stressors. More surprising in this study was the absence of a relationship between parenting stress and maternal negativity and warmth in the conduct problems group. On the basis of previous research (Abidin, 1990; Routh et al., 1995), it was anticipated that mothers of boys with conduct problems would be stressed, particularly in relation to their parenting role, and that the high levels of stress would influence their schemas regarding their child and also their parent-child interactions. Whilst the findings from the current study show that there were marked differences between the groups in parenting stress and maternal mood state, a finding consistent with previous research (Morgan et al., 2002), of note is that parenting stress in particular was related to maternal negativity only in the comparison group, and was not related to any of the schema or parenting variables in either of the groups.

This relationship is particularly interesting because it contradicts findings from previous research about the relationship between parenting stress and parenting behaviour (Abidin, 1990; Morgan et al., 2002). For example, Morgan et al. (2002) cite evidence from studies that shows that single mothers of children with externalising problems not only perceive themselves

as being significantly more stressed than controls, but also interact with their children in a more critical and controlling way; that is, that there is a relationship between stress and parenting behaviour. Although mothers in the conduct problems group in this study were more likely to be single than mothers in the comparison group, and perceived themselves as significantly more stressed than mothers in the comparison group, there was no relationship found between parenting stress and parenting behaviour in this group. One could speculate that, contrary to expectations and previous research (e.g. Patterson et al., 1989; Webster-Stratton, 1988), in the conduct problems group the effect of schemas and parenting were independent of both parenting stress and maternal mood state. It could also be the case that under certain conditions, the relationship between parenting stress and psychological distress and, for example, parenting behaviour, breaks down.

The lack of a relationship between child-related interpersonal schemas and parenting warmth and negativity overall suggests that the pathway from schemas to behaviour in the context of parent-child interactions is more complex than was anticipated. This issue will be addressed in more detail in section 4.4.1.

4.2.6 Summary

This study has found that mothers of boys with conduct problems have more negative child-related interpersonal schemas than mothers in the comparison group. The aetiology of these schemas, however, is still unclear. Contrary to the predictions made in Chapter 1, they are not related to interpersonal

schemas regarding early attachment figures. The processes by which these child-related schemas are maintained also remains unclear.

In accordance with previous research, this study also found that mothers in the conduct problems group had a more negative and less warm style of parenting than mothers in the comparison group. Surprisingly, this was not related to either perceived parenting stress or maternal mood state. However, the aetiology of this behaviour remains unclear. No relationship was found between interpersonal schemas and parenting behaviour, suggesting that the pathway from schema to behaviour may be influenced by a number of factors not examined in this study. However, the level of confidence in all of the above findings is limited by the methodological limitations of the study, presented in the next section.

4.3 Limitations of the current study

4.3.1 Design and recruitment

The most obvious limitation of the present study was the small sample size. The lack of power associated with such a sample size may have contributed to the failure to find significant effects with regards to some of the main hypotheses. Another important limitation of the study was the failure to match the two groups on socio-demographic variables. Although these variables were not found to be correlated with the main dependent variables, it is still possible that socio-demographic differences contributed to the current findings. Ideally, this study would have recruited two groups of mothers and their sons who were comparable on socio-demographic factors

in order to ascertain the influence of both schemas and parenting behaviour without the possible confounding effects of, for example, education and marital status. Although these are risk factors for the development of conduct problems, there are many mothers with similar backgrounds whose children do not develop difficulties. Matching groups on these factors may not only tell us more about the development of conduct problems, but may also tell us more about those children who, with the same constellation of familial risk factors, do not go on to develop conduct problems.

That there were only two groups also means that it is not clear whether or not the findings are specific to childhood onset conduct problems or whether they relate more generally to other forms of childhood psychopathology. For example, Hudson and Rapee (2001) found no differences in either levels of maternal involvement or negativity between mothers of children with oppositional disorder and mothers of anxious children. However, they also note that the oppositional defiant children in their sample also had higher levels of anxiety and internalising problems than the non-clinical children. One of the strengths of the present study is that the conduct problems group were not reported to have any comorbid difficulties.

Another important limitation of this study regards the representativeness of the sample. The method of recruitment meant that it was not possible to ascertain whether or not the mothers who agreed to participate were representative of the total population who received the initial letters. These

limitations mean that all of the findings should be interpreted with caution until replicated with larger sample sizes.

The recruitment process also raised the possibility of sample bias. It has been well documented that boys with conduct problems have interpersonal difficulties and hostile attributional biases (Carr, 1999; Dodge, 1993). This study aimed to examine whether mothers of boys with conduct problems also anticipate hostility from significant others. One could argue that the mothers who agreed to participate in the research were those with less hostile interpersonal schemas. Mothers with more hostile schemas may have been less likely not only to agree to participate, but they may also have negative relationships with their sons' school which could have affected their willingness to participate in a project that was being conducted in the school context. The possibility that the participating sample represented the less severe end of a spectrum of interpersonal hostility could explain the lack of differences between the two groups on some of the variables discussed above.

Another limitation of the study was that the children and their mothers were assigned to groups on the basis of mother-rated levels of behaviour problems. It could be that the mothers who did come forward and agree to participate wanted help and so overestimated their son's difficulties. It could also be that, as has been suggested in other studies, maternal report is influenced by a range of factors in addition to the child's overt behaviour, such as mothers' mental health (Gardner, Sonuga-Barke & Sayal, 1999).

However, in Gardner et al.'s (1999) study, as in the current study, mothers' mental health was not related to any of the main dependent variables in the conduct problems group even though it was related to group membership. Future studies could enhance the validity of screening data by combining parent report of child's difficulties with teacher report, as has been advocated by Goodman et al. (2000).

Despite these limitations, however, in many respects the sample in the current study was well suited to the examination of the key research questions. Drawn from a community population, the conduct problems group comprised a group of mothers and their sons whose demographic and behavioural profiles reflect those of mothers and their sons routinely seen in child mental health services, but not routinely seen in research populations (Scott, 2001). It is clear from the demographic data provided that the mothers in the conduct problems group had more psychosocial stressors than mothers in the comparison group, and this is consistent with previous research examining risk factors for conduct problems (Patterson et al., 1989).

4.3.2 Measurement of schemas

Issues relating to the measurement of the main dependent variables also influence the level of confidence in the findings of the present study. For example, whether or not schemas can be reliably measured has been the subject of much debate since the advent of the information processing approach (Dodge, 1993; Gomez et al., 2001; Sigel, 1985). Historically, a distinction has been made between conscious cognitions, such as negative

automatic thoughts, and what are thought to be deeper-level cognitions not as readily available to consciousness (Sigel, 1985).

Attachment theory assumes that internal working models of relationships are non-conscious and therefore cannot be measured by direct means, such as self-report (Edelstein et al., 2004; Thompson & Raikes, 2003). Central to the narrative measures of adult attachment, such as the AAI (George et al., 1984), is the assumption that attachment representations may not be consciously accessible, perhaps as a result of defensive processes (Edelstein et al., 2004). Self-report measures, by contrast, assume that these representations are consciously accessible.

In the current study, a potential limitation is that mothers' completion of the Interpersonal Schema Questionnaire (Hill & Safran, 1994) may have been influenced by any number of factors including social desirability and defensive processes. With no measure of, for example, social desirability, it is not possible to say what effect this may have had on mothers' reporting of both levels of stress and distress, but also on their reporting of interpersonal schemas. However, despite this possible methodological limitation, Edelstein et al. (2004) argue that not only do self-report and narrative measures of attachment assess similar constructs, as evidenced by their correlations with one another, but also that caregiving behaviour has been associated with attachment as assessed by both self-report and narrative measures.

A final limitation of the current study with regards to the measurement of interpersonal schemas is that the Interpersonal Schema Questionnaire (Hill & Safran, 1994) has not been validated for use in the context of parent-child relationships. Although the questionnaire was piloted to ensure that it was understandable and had face validity for mothers of boys with conduct problems, more formal validity and reliability checks would have enhanced the confidence in the current findings.

4.3.3 Measurement of parenting behaviour

Parenting behaviour is notoriously difficult to both operationalise and measure (Maccoby, 1992). Although inter-rater reliability was very high in this study for both of the tasks, the fact that one of the coders was not blind to participant status introduces the possibility of bias and expectations influencing the coding (Aspland & Gardner, 2003). Another important issue raised by this study is the validity of the parent-child interaction tasks. Several important limitations of the present study relate to the underlying parenting behaviour constructs that were measured, the type of tasks used to measure these parenting behaviours, and the context in which they were observed.

As regards the underlying constructs measured, Hudson and Rapee's (2001) coding systems were developed in the context of childhood anxiety problems and not conduct problems. Therefore, the kinds of behaviours that comprise negativity, warmth, involvement and control may be more relevant to anxiety

rather than conduct problems. This may partially account for the lack of a difference in the present study in maternal control and involvement.

Another limitation is that the measurement of parenting behaviour focussed solely on the content rather than the timing of behaviours. According to Gardner et al. (1999), the timing of parental strategies may be more important than the content of these strategies. In their study of parents' behaviour before their child misbehaves, they show that better outcomes are obtained if parents are encouraged to use pre-emptive strategies as opposed to reactive ones, thereby avoiding the "negative reinforcement trap" of which Patterson (1982) writes (Gardner et al., 1999). Further, they show that this reflects a parent effect, and one not related to maternal psychopathology (as in the current study). It could be argued that interpersonal schemas, focusing as they do on *anticipated* responses of significant others, may have a stronger association with parental behaviour before their child becomes angry, frustrated, or misbehaves than parental reactive behaviour, as measured in the current study. This may account for the absence of a relationship in the present study between child-related interpersonal schemas and parenting behaviour.

Perhaps a more fundamental limitation of the current study relates to the validity of the parenting measures as operationalised by the two parent-child interaction tasks. It could be argued that the anagrams task was not ecologically valid as it involved a structured task that the boys and their mothers may not have encountered in their everyday lives. Although this

was anticipated, and hence the discussion task was chosen to be a more ecologically valid measure of parent-child interactions, one could speculate that for the conduct problems group in particular anger is not usually discussed, as evidenced by the relative difficulty that this group had in engaging in this task. This may also be a direct result of observer reactivity. Although the available evidence appears to show that the extent to which participants change their behaviour in response to being observed is minimal (Aspland & Gardner, 2003), the process of being video-taped in the present study may have affected how the mother-son dyads responded to the tasks.

The nature of the interaction tasks may have also influenced the kinds of parenting behaviours elicited. Chang et al. (2003) argue that the association between harsh parenting and child aggression depends on whether parental control behaviours are carried out in an emotionally controlled or an emotionally charged manner. It could be argued that mothers in the current study were able to exert appropriate control across the two tasks because they were designed specifically to be frustrating for the sons, not for the mothers. It could also be argued that both the types of task and the context in which the parenting behaviours were observed did not facilitate the expression of emotions and behaviours that the mothers and their sons would normally engage in at home. According to Edelstein et al. (2004), caregiving behaviour in particular needs to be measured in attachment-relevant contexts, such as those that involve separation or are significantly anxiety-producing, as in their own study of children undergoing medical procedures. One could speculate that in the current study, child-related

interpersonal schemas were not related to parenting behaviour because the tasks used did not sufficiently activate the attachment system.

4.4 Scientific and clinical implications

Despite the limitations outlined in the previous section, the findings from this study may have direct implications for both research and clinical practice in the area of conduct problems. These implications will be reviewed in the next two sections.

4.4.1 Implications for research in conduct problems

The findings from this study suggest several potentially important implications for future research. Overall, this study suggests that examination of maternal interpersonal schemas may be a fruitful avenue of future research in the area of conduct problems. Although interest in this field is growing (Stallard, 2002), interpersonal schema theory provides a useful framework for integrating the diverse findings from the social learning, attachment and cognitive fields. It is clear that more rigorous longitudinal research with larger sample sizes needs to be done in order to clarify the role of maternal interpersonal schemas in the development and maintenance of conduct problems.

However, although this study found differences in child-related schemas between the two groups of mother-son dyads, what remains unclear is the aetiology of these child-related interpersonal schemas and the processes by which they are maintained. What is perhaps more clear is that the pathway

from early interpersonal schemas to current interpersonal expectations is more complex than was anticipated and may be influenced by experiences with current significant others, such as marital partners or close friends. Indeed, the gender of these significant others may be the most important factor. This study clearly shows that many of the mothers of boys with conduct problems are raising their sons in the absence of male figures in the home. Although there is research looking at how children feel about their absent fathers, and the impact this has on their development (Dunn et al., 2004), future studies could examine this from the mothers' perspective. A useful starting point would be to look at mothers' interpersonal schemas regarding these absent male figures, past and present.

The findings from this study also suggest that the pathway between child-related interpersonal schemas and parenting behaviour is more complex than the model outlined in Chapter 1 suggests. For example, in the cognitive literature, Dodge (1993) has suggested that in aggressive children, knowledge structures such as self-schema may lead to behaviour indirectly via processing in specific instances. Although the evidence is mixed regarding both the kinds of knowledge structures that these children hold and their relationship to aggressive behaviour (Beauchaine et al., 2002; Dodge, 1993), these findings with children may help us to think about similar pathways in adults. For example, Beauchaine et al. (2002) found that, as with aggressive boys, although mothers of aggressive boys have adequate cognitive response repertoires, they rely on automated, less effective options when under pressure. This echoes Dumas and LaFreniere's (1995) finding

that mothers of aggressive children are able to demonstrate good parenting skills with unfamiliar children that they are unable to show with their own children.

The cognitive research also highlights the importance of understanding the different roles that general and more specific cognitions may play in guiding parenting behaviour, particularly in stressful conditions (Baden & Howe, 1992). In the classic cognitive model (Beck et al., 1979), stable core beliefs and dysfunctional assumptions are hypothesised to be related to behaviour via more situation-specific negative automatic thoughts. One could argue that interpersonal schemas are like dysfunctional assumptions, or if-then contingencies, and may relate to behaviour via these more situation-specific cognitions, not measured in the current study. It is clear that the relationship between schemas and parenting behaviour is complex. If cognitions are important in parent-child interactions, as indicated by the current study, more work needs to be done to identify the different cognitive structures and content that may be most important in the development and maintenance of conduct problems.

The pathway between child-related interpersonal schemas and parenting behaviour may also be influenced by any number of broader systemic and social factors not examined in the current study. For example, van IJzendoorn et al. (1995) cite evidence from several intervention studies that show that urgent "survival" needs, such as housing and financial issues, may interfere with attempts to change maternal sensitivity. Although the within-

group correlations presented in Chapter 3 suggest that some of these socio-demographic factors were not associated with either parenting or schema variables, future studies could examine these relationships in more detail.

Overall, the findings from the current study indicate that child-related interpersonal schemas, though different between the two groups of mothers, are not in themselves sufficient to explain the variance in parenting negativity and warmth. This, however, is consistent with the findings from attachment research; in his meta-analysis of adult attachment representations, parental responsiveness and infant attachment, van IJzendoorn (1995) found that the security of parents' attachment explains only about 12% of the variation in their responsiveness to their children.

That there was no relationship between child-related interpersonal schemas and parenting behaviour may also reflect the fact that, contrary to Patterson's coercive hypothesis (Patterson et al., 1992) where parent factors such as maternal distress and family adversity have an indirect effect on child behaviour through their effect on parental behaviours, parental cognitions and belief systems may impact directly on child outcomes (McGillicuddy-DeLisi, 1985). For example, both the home and social environment in which the child develops may reflect parental beliefs through choice of partner, friends, organisation of the home, and type of toys available (McGillicuddy-DeLisi, 1985). These issues have implications for how we measure parental beliefs and behaviours in that they may not be measurable or observable in any one behaviour or context (McGillicuddy-DeLisi, 1985). In her study of the

association between parental beliefs, parenting behaviours and children's representational abilities in families with preschool children, McGillicuddy-DeLisi (1985) actually found that parental beliefs have a stronger association with children's representational abilities than parenting behaviours. Although no measures of the children's interpersonal schemas were taken in the current study, future studies could include such measures to ascertain if maternal interpersonal schemas have direct effects on the development of children's interpersonal schemas.

In summary, the findings from the current study have raised more questions than answers. It is clear that longitudinal studies are needed to examine the aetiology of child-related interpersonal schemas, the processes by which they are maintained, and their relationship to more situation specific cognitive processes and a range of parenting behaviours in a variety of different contexts.

4.4.2 Clinical implications

This study has shown that mothers of boys with conduct problems not only have negative child-related interpersonal schemas, but they are also more likely to have higher levels of perceived parenting stress, psychological distress, and more socioeconomic disadvantage than mothers of boys with no significant problems. Although these mothers were recruited from a community population, and were potentially those who expected less interpersonal hostility than the mothers who did not agree to participate, they

are the kinds of mothers routinely seen in "real world" child mental health services (Scott, 2001).

What is already known is that maternal adjustment factors and psychosocial stressors alone are predictors of parent training treatment relapses and fewer treatment gains (Webster-Stratton, 1994; Webster-Stratton & Hammond, 1990). However, the current study also suggests that child-related interpersonal schemas may also play a role both in parental engagement with psychological treatments, and in the effectiveness of these treatments. As regards engagement, Safran (1990b) has highlighted that parental engagement with therapeutic interventions may be influenced by their interpersonal expectations. For example, one could speculate that mothers who anticipate hostility from others are less likely to engage in parent training programmes than mothers with less negative interpersonal schemas. Indeed, it has been suggested that variables such as maternal attachment status, or indeed interpersonal schemas, may be more useful indicators of who is more or less likely to engage and do well in treatment than levels of symptomatology (Cloitre et al., 2002; Deklyen, 1996; Soygut et al., 2001). However, interpersonal hostility is likely to be only one potential factor influencing parental engagement with parent training programmes and may interact with a host of other factors that may make parent training programmes difficult to engage with, such as psychosocial stressors and attachment factors (Routh et al., 1995). Future studies could test out the hypothesis that interpersonal hostility influences parental engagement with parent training programmes by administering the ISQ to mothers before

training commences and then seeing if scores on the ISQ predicts who engages and who doesn't.

Understanding of child-related interpersonal schemas may also enhance the effectiveness of parent training programmes currently offered in routine clinical practice. Although maternal relationships and cognitions are currently addressed implicitly in parent training programmes, this study suggests that more attention needs to be paid to these factors. Research is already beginning to show that parent training could be improved with the addition of a cognitive component (White et al., 2003), but it is not yet known which cognitive processes are the most useful areas for intervention. Further, Webster-Stratton (1994) has suggested that parents of conduct-disordered children may have a general "relational deficit" (p.584) that is reflected on several levels, including the level of interpersonal communication. Advanced parent training programmes which address these interpersonal deficits may be more effective than those that simply address the skills deficits usually targeted in parent training programmes (Webster-Stratton, 1994). This study lends some support to this treatment advance by examining further the kinds of cognitions that may underpin such interpersonal deficits. However, more work is needed in order to understand the possible nature of these deficits and whether or not they are specific to certain relationships or result from a more general background of inadequate socialization, as Patterson has suggested (Patterson, 1982).

This study also highlights the need to target parental representations regarding their children with conduct problems rather than simply their behaviour. According to van IJzendoorn et al. (1995), acquisition of behavioural strategies may work at the time of intervention with the child, but lack of change of parental representations may mean that parents may later encounter difficulties in dealing with the attachment needs of the developing child. The task of parenting an adolescent boy is clearly different to that of parenting a primary school age boy. However, whilst changing parents' insecure attachment representations may not be the most cost effective point of intervention (Scott, 2003), consciously accessible interpersonal schemas relating to current interpersonal relationships may be a more fruitful and amenable point of change.

Finally, this study suggests that any intervention targeted at reducing childhood onset conduct problems must focus not only on the behavioural and cognitive aspects of parenting, but also on the affective dimension of this behaviour. Many researchers have already highlighted the importance of addressing the affective quality of parent-child interactions (Chang et al., 2003; Scott, 2001; Webster-Stratton & Hammond, 1997), and this study lends some support to the theory that although parental control is an important construct to examine, it may be that it is the affective quality of that control that is most important.

4.5 Conclusions

Childhood onset conduct problems, and later antisocial behaviour, present some of the most significant political, social and mental health challenges to services today. Whilst many factors have been implicated in the aetiology of these problems, from child characteristics such as temperament to family ecology variables such as marital distress, the genesis of conduct problems is still not known. Although a diverse number of theoretical frameworks have been brought to the task of understanding the development and maintenance of conduct problems, they remain largely unintegrated, even though it is clear that difficulties as complex as conduct problems will require complex aetiological models.

This study aimed to integrate some of these diverse theories within the broader framework of interpersonal schema theory. It was designed to be a first step in examining the potential role of maternal interpersonal schemas in the maintenance of conduct problems and was based on the premise that parents are not simply more or less skilled agents of behavioural change but have complex relationships with their children.

Although not all of the research hypotheses were supported, the results provide evidence that mothers of boys with conduct problems were more negative and less warm in their interactions with their sons, and also that they had more negative child-related interpersonal schemas than mothers of boys in a comparison group. The lack of a relationship between child-related interpersonal schemas and parenting behaviour, however, means that no

conclusions can be drawn as to the likely influence of schemas on parenting behaviour.

The study suggests a variety of positive directions for research and clinical practice in the area of childhood onset conduct problems. Additional research is needed to enhance current knowledge, particularly by focusing on the cognitive processes that may be involved in the development and maintenance of conduct problems. However, this research also needs to focus not only on descriptive accounts of parenting deficits, as many existing studies do, but must also aim to clarify the aetiology of these cognitive processes so that effective prevention and intervention programmes can be developed and enhanced. This study of interpersonal schemas is a very small step towards this aim and one that future studies can hopefully build on.

REFERENCES

Abidin, R.R. (1990). *The Parenting Stress Index Short Form.* Charlottesville, VA: Paediatric Psychology Press.

Achenbach, T.M. (1991). *Manual for the Child Behaviour Checklist/4-18 and 1991 Profile.* Burlington, VT: University of Vermont Department of Psychiatry.

Achenbach, T.M., Dumenci, L., & Rescorla, L.A. (2003). Are American children's problems still getting worse? A 23-year comparison. *Journal of Abnormal Child Psychology, 31,* 1-11.

Ainsworth, M.D.S. (1989). Attachments beyond infancy. *American Psychologist, 44,* 709-716.

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.

Angold, A., Costello, E.J., & Erkanli, A. (1999). Comorbidity. *Journal of Child Psychology and Psychiatry, 40,* 57-87.

Aspland, H., & Gardner, F. (2003). Observational measures of parent-child interaction: An introductory review. *Child and Adolescent Mental Health, 8,* 136-143.

Baden, A.D., & Howe, G.W. (1992). Mothers' attributions and expectancies regarding their conduct-disordered children. *Journal of Abnormal Child Psychology, 20,* 467-485.

Bandura, A., & Walters, R.H. (1959). *Adolescent aggression: A study of the influence of child-training practices and family interrelationships.* Oxford: Ronald Press.

Beauchaine, T.P., Strassberg, Z., Kees, M.R., & Drabick, D.A.G. (2002). Cognitive response repertoires to child noncompliance by mothers of aggressive boys. *Journal of Abnormal Child Psychology, 30,* 89-101.

Beck, A.T., Rush, A.J., Shaw, B.F., & Emery, G. (1979). *Cognitive therapy of depression.* New York: The Guilford Press.

Belsky, J. (1984). The determinants of parenting: A process model. *Child Development, 55,* 83-96.

Berlin, L.J., & Cassidy, J. (1999). Relations among relationships: Contributions from attachment theory and research. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 688-712). New York, Guilford Press.

Bowlby, J. (1969). *Attachment and Loss: Vol. 1. Attachment.* New York: Basic Books.

Bowlby, J. (1973). *Attachment and Loss: Vol.2. Separation: Anxiety and anger.* New York: Basic Books.

Bowlby, J. (1980). *Attachment and Loss: Vol.3. Loss.* New York: Basic Books.

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.

Bugental, D.B., & Johnston, C. (2000). Parental and child cognitions in the context of the family. *Annual Review of Psychology, 51,* 315-344.

Burke, J.D., Loeber, R., & Birmaher, B. (2002). Oppositional defiant disorder and conduct disorder: A review of the past 10 years, part II. *Journal of the American Academy of Child and Adolescent Psychiatry, 41,* 1275-1293.

Carr, A. (1999). *The handbook of child and adolescent clinical psychology: A contextual approach.* London: Routledge.

Chang, L., Schwartz, D., Dodge, K.A., & Chang, C.M. (2003). Harsh parenting in relation to child emotion regulation and aggression. *Journal of Family Psychology, 17,* 598-606.

Cloitre, M., Cohen, L.R., & Scarvalone, P. (2002). Understanding revictimization among childhood sexual abuse survivors: An interpersonal schema approach. *Journal of Cognitive Psychotherapy: An International Quarterly, 16,* 91-111.

Cohen, P., Cohen, J., Kasen, S., Velez, C., Hartmark, C., Johnston, J., Rojas, M., Brook, J., & Steuning, E. (1993). An epidemiological study of disorders in late childhood and adolescence – 1. Age and gender specific prevalence. *Journal of Child Psychology and Psychiatry, 34*, 851-867.

Cohn, D.A., Cowan, P.A., Cowan, C.P., & Pearson, J. (1992). Mothers' and fathers' working models of childhood attachment relationships, parenting styles, and child behaviour. *Development and Psychopathology, 4,* 417-431.

Cornah, D., Sonuga-Barke, E., Stevenson, J., & Thompson, M. (2003). The impact of maternal mental health and child's behavioural difficulties on attributions about child behaviours. *British Journal of Clinical Psychology, 42,* 69-79.

Crowell, J.A., & Feldman, S.S. (1988). Mothers' internal models of relationships and children's behavioural and developmental status: A study of mother-child interaction. *Child Development, 59,* 1273-1285.

Crowell, J.A., O'Connor, E., Wollmers, G., Sprafkin, J., & Rao, U. (1991). Mothers' conceptualisations of parent-child relationships: Relation to mother-child interaction and child behaviour problems. *Development and Psychopathology, 3,* 431-444.

Dadds, M.R. (1987). Families and the origins of child behaviour problems. *Family Process, 26,* 341-357.

Davis, H., Day, C., & Bidmead, C. (2002). *Working in partnership with parents: The parent adviser model.* London: The Psychological Corporation.

Deklyen, M. (1996). Disruptive behaviour 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.

Derogatis, L. (1993). *Brief Symptom Inventory (BSI): Administration, scoring, and procedures manual* (3rd ed.). Minneapolis, MN: National Computer Systems.

Dix, T. (1991). The affective organization of parenting: Adaptive and maladaptive processes. *Psychological Bulletin, 110,* 3-25.

Dodge, K.A. (1985). Attributional bias in aggressive children. In P.C. Kendall (Ed.), *Advances in cognitive-behavioural research and therapy* (pp. 73-110). Orlando, FL: Academic Press.

Dodge, K.A. (1993). Social-cognitive mechanisms in the development of conduct disorder and depression. *Annual Review of Psychology, 44,* 559-584.

Dodge, K.A., & Tomlin, A. (1987). Cue utilization as a mechanism of attributional bias in aggressive children. *Social Cognition, 5,* 280-300.

Doubleday, E., & Hey, C. (2004). Is statistical significance enough? Behavioural parent training programmes in real life. *Clinical Psychology, 37,* 5-9.

Dumas, J.E. (1986). Indirect influence of maternal social contacts on mother-child interactions: A setting event analysis. *Journal of Abnormal Child Psychology, 14,* 205-216.

Dumas, J.E., & LaFreniere, P.J. (1995). Relationships as context: Supportive and coercive interactions in competent, aggressive, and anxious mother-child dyads. In J. McCord (Ed.), *Coercion and punishment in long-term perspectives* (pp. 9-33). New York: Cambridge University Press.

Dunn, J., Cheng, H., O'Connor, T.G., & Bridges, L. (2004). Children's perspectives on their relationships with their nonresident fathers: Influences, outcomes and implications. *Journal of Child Psychology and Psychiatry, 45,* 553-566.

Edelstein, R.S., Alexander, K.W., Shaver, P.R., Schaaf, J.M., Quas, J.A., Lovas, G.S., & Goodman, G.S. (2004). Adult attachment style and parental responsiveness during a stressful event. *Attachment and Human Development, 6,* 31-52.

Fonagy, P., & Target, M. (1998). An interpersonal view of the infant. In A. Hurry (Ed.), *Psychoanalytic monographs no. 3: Psychoanalysis and developmental therapy* (pp. 3-31). London: Karnac Books.

Forehand, R., & Kotchick, B.A. (1996). Cultural diversity: A wake-up call for parent training. *Behaviour Therapy, 27,* 187-206.

Forehand, R.L., & McMahon, R.J. (1981). *Helping the non-compliant child: A clinician's guide to parent training.* London: The Guilford Press.

Gardner, F. (1989). Inconsistent parenting: Is there evidence for a link with children's conduct problems? *Journal of Abnormal Child Psychology, 17,* 223-233.

Gardner, F. (2000). Methodological issues in the direct observation of parent-child interaction: Do observational findings reflect the natural behaviour of participants? *Clinical Child and Family Psychology Review, 3,* 185-198.

Gardner, F., 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, 40,* 1185-1196.

George, C., Kaplan, N., & Main, M. (1984). *Adult Attachment Interview.* Unpublished manuscript, University of California, Berkeley.

Gomez, R., Gomez, A., DeMello, L., & Tallent, R. (2001). Perceived maternal control and support: Effects on hostile biased social information processing and aggression among clinic-referred children with high aggression. *Journal of Child Psychology and Psychiatry, 42,* 513-522.

Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 38,* 581-586.

Goodman, R. (1999). The extended version of the Strengths and Difficulties Questionnaire as a guide to child psychiatric caseness and consequence burden. *Journal of Child Psychology and Psychiatry, 40,* 791-801.

Goodman, R., & Scott, S. (1999). Comparing the Strengths and Difficulties Questionnaire and the Child Behaviour Checklist: Is small beautiful? *Journal of Abnormal Child Psychology, 27,* 17-24.

Goodman, R., Ford, T., Simmons, H., Gatward, R., & Meltzer, H. (2000). Using the Strengths and Difficulties Questionnaire (SDQ) to screen for child psychiatric disorders in a community sample. *British Journal of Psychiatry, 177,* 534-539.

Graham, P. (Ed.) (1998). *Cognitive-behaviour therapy for children and families.* Cambridge: Cambridge University Press.

Greene, R.W., & Doyle, A.E. (1999). Toward a transactional conceptualisation of oppositional defiant disorder: Implications for assessment and treatment. *Clinical Child and Family Psychology Review, 2,* 129-148.

Green, J., & Goldwyn, R. (2002). Annotation: Attachment disorganisation and psychopathology: New findings in attachment research and their potential implications for developmental psychopathology in childhood. *Journal of Child Psychology and Psychiatry, 43,* 835-846.

Greenberg, L.S., & Safran, J.D. (1984). Hot cognition – emotion coming in from the cold: A reply to Rachman and Mahoney. *Cognitive Therapy and Research, 8,* 591-598.

Greenberg, M.T., Speltz, M.L., & Deklyen, M. (1993). The role of attachment in the early development of disruptive behaviour problems. *Development and Psychopathology, 5,* 191-213.

Greenberg, M.T., Speltz, M.L., Deklyen, M., & Endriga, M.C. (1991). Attachment security in preschoolers with and without externalising behaviour problems: A replication. *Development and Psychopathology, 3,* 413-430.

Hartman, R., Stage, S.A., & Webster-Stratton, C. (2003). A growth curve analysis of parent training outcomes: Examining the influence of child risk factors (inattention, impulsivity, and hyperactivity problems), parental and family risk factors. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 44,* 388-398.

Herbert, M. (1998). *Clinical child psychology: Social learning, development and behaviour* (2nd ed.). Chichester: John Wiley & Sons.

Hill, J. (2002). Biological, psychological and social processes in the conduct disorders. *Journal of Child Psychology and Psychiatry, 43,* 133-164.

Hill, C.R., & Safran, J.D. (1994). Assessing interpersonal schemas: Anticipated responses of significant others. *Journal of Social and Clinical Psychology, 13,* 366-379.

Horowitz, M.J. (1989). Relationship schema formulation: Role-relationship models and intrapsychic conflict. *Psychiatry: Journal for the Study of Interpersonal Processes, 52,* 260-274.

Hudson, J.L. (2001). *Coding manual for the behavioural observations of family discussions.* Unpublished manuscript, Temple University.

Hudson, J.L., & Rapee, R.M. (2001). Parent-child interactions and anxiety disorders: An observational study. *Behaviour Research and Therapy, 39,* 1411-1427.

Hudson, J.L., Angelosante, A., Comer, J., Robin, J., & Kendall, P.C. (2003). Anxiety disorders and over-involvement in parents of anxious children. In S.M. Bogels (Chair), *Parental Influence on child anxiety: Symposium presented at the 37th Annual Convention of the Association for the Advancement of Behaviour Therapy.* Boston, Massachusetts.

Johnston, C. (1996). Addressing parent cognitions in interventions with families of disruptive children. In K. Dobson & K. Craig (Eds.), *Advances in cognitive behavioural therapy* (pp. 193-209). London: Sage.

Kazdin, A.E. (1987). *Conduct disorders in childhood and adolescence.* Newbury Park, CA: Sage Publications.

Kazdin, A.E. (1995). Child, parent, and family dysfunction as predictors of outcome in cognitive-behavioural treatment of antisocial children. *Behaviour Research and Therapy, 33,* 271-281.

Kazdin, A.E., & Weisz, J.R. (1998). Identifying and developing empirically supported child and adolescent treatments. *Journal of Consulting and Clinical Psychology, 66,* 19-36.

Keenan, K., Shaw, D., Delliquadri, E., Giovannelli, J., & Walsh, B. (1998). Evidence for the continuity of early problem behaviours: Application of a developmental model. *Journal of Abnormal Child Psychology, 26,* 441-454.

Kendall, P.C., Chansky, T.E., Friedaman, M., Kim, R.S., Kortlander, D., Conan, K.R., Sessa, F.M., & Siqueland, L. (1992). *Anxiety disorders in youth: Cognitive behavioural interventions.* Needham Heights, MA: Allyn & Bacon.

Kendziora, K.T., & O'Leary, S.G. (1998). Appraisals of child behaviour by mothers of problem and nonproblem toddlers. *Journal of Abnormal Child Psychology, 26,* 247-255.

Kiesler, D.J. (1983). The 1982 interpersonal circle: A taxonomy for complementarity in human transactions. *Psychological Review, 90,* 185-214.

Krech, K.H., & Johnston, C. (1992). The relationship of depressed mood and life stress to maternal perceptions of child behaviour. *Journal of Clinical Child Psychology, 21,* 115-122.

Lahey, B.B., Waldman, I.D., & McBurnett, K. (1999). Annotation: The development of antisocial behaviour: An integrative model. *Journal of Child Psychology and Psychiatry, 40,* 669-682.

Landy, S., & Menna, R. (2001). Play between aggressive young children and their mothers. *Clinical Child Psychology and Psychiatry, 6,* 223-239.

Loeber, R., Keenan, K., Lahey, B.B., Green, S.M., & Thomas, C. (1993). Evidence for developmentally based diagnoses of oppositional defiant disorder and conduct disorder. *Journal of Abnormal Child Psychology, 21,* 377-410.

Loeber, R., Burke, J.D., Lahey, B.B., Winters, A., & Zera, M. (2000). Oppositional defiant and conduct disorder: A review of the past 10 years, Part I. *Journal of the American Academy of Child and Adolescent Psychiatry, 39,* 1468-1483.

Luthar, S.S., & Zelazo, L.B. (2003). Research on resilience: An integrative review. In S.S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 510-546). Cambridge: Cambridge University Press.

Maccoby, E.E. (1992). The role of parents in the socialization of children: An historical overview. *Developmental Psychology, 28,* 1006-1017.

Main, M., & Hesse, E. (1990). Parents' unresolved traumatic experiences are related to infant disorganised attachment status: Is frightened and/or frightening paternal behaviour the linking mechanism? In M.T. Greenberg, D. Cicchetti, & E.M. Cummings (Eds.), *Attachment in the pre-school years: Theory, research and intervention* (pp. 161-182).

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.

McGilliduddy-DeLisi, A.V. (1985). The relationship between parental beliefs and children's cognitive level. In I.E. Sigel (Ed.), *Parental belief systems: The psychological consequences for children* (pp. 7-24). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

McMahon, R.J., & Forehand, R. (1988). Conduct disorders. In E.J. Mash & L.G. Terdal (Eds.), *Behavioural assessment of childhood disorders* (2nd ed.) (pp. 105-153). New York: The Guilford Press.

Meltzer, H., Gatward, R., Goodman, R., & Ford, T. (2000). *The mental health of children and adolescents in Great Britain.* London: Office of National Statistics.

Mills, R.S., & Rubin, K.H. (1998). Are behavioural and psychological control both differentially associated with childhood aggression and social withdrawal? *Canadian Journal of Behavioural Science, 30,* 132-136.

Moffitt, T.E. (1993). "Life-course-persistent" and "adolescent-limited" antisocial behaviour: A developmental taxonomy. *Psychological Review, 100,* 674-701.

Moffitt, T.E., Caspi, A., Harrington, H., & Milne, B.J. (2002). Males on the life-course-persistent and adolescence-limited antisocial pathways: Follow-up at age 26 years. *Development and Psychopathology, 14,* 179-207.

Mongrain, M. (1998). Parental representations and support-seeking behaviours related to dependency and self-criticism. *Journal of Personality, 66,* 151-173.

Morgan, J., Robinson, D., & Aldridge, J. (2002). Parenting stress and externalising child behaviour. *Child and Family Social Work, 7,* 219-225.

Orford, J. (1986). The rules of interpersonal complementarity: Does hostility beget hostility and dominance, submission? *Psychological Review, 93,* 365-377.

Patterson, G.R. (1980). Mothers: the unacknowledged victims. *Monographs for the Society for Research in Child Development, 186,* 1-64.

Patterson, G.R. (1982). *Coercive family process: A social learning approach.* Eugene, Oregon: Castalia.

Patterson, G.R. (1986). Performance models for antisocial boys. *American Psychologist, 41,* 432-444.

Patterson, G.R. (1992). Developmental changes in antisocial behaviour. In R.DeV. Peters, R.J. McMahon, & V.L. Quinsey (Eds.), *Aggression and violence throughout the life span* (pp. 52-82). Newbury Park, CA: Sage.

Patterson, G.R. (1997). Performance models for parenting: A social interactional perspective. In J.E. Grusec & L. Kuczynski (Eds.), *Parenting and children's internalisation of values: A handbook of contemporary theory* (pp. 193-235). New York: John Wiley & Sons.

Patterson, G.R., & Stouthamer-Loeber, M. (1984). The correlation of family management practices and delinquency. *Child Development, 55,* 1299-1307.

Patterson, G.R., Debaryshe, B.D., & Ramsey, E. (1989). A developmental perspective on antisocial behaviour. *American Psychologist, 44,* 329-335.

Patterson, G.R., Dishion, T.J., & Chamberlain, P. (1993). Outcomes and methodological issues relating to treatment of antisocial children. In T.R. Giles (Ed.), *Handbook of effective psychotherapy* (pp. 43-88). New York: Plenum Press.

Patterson, G.R., Reid, J.B., & Dishion, T.J. (1992). *A social learning approach. IV. Antisocial boys.* Eugene, OR: Castalia.

Puckering, C., Rogers, J., Mills, M., Cox, A.D., & Mattsson-Graf, M. (1994). Process and evaluation of a group intervention for mothers with parenting difficulties. *Child Abuse Review, 34,* 299-310.

Routh, C.P., Hill, J.W., Steele, H., Elliot, 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, 36,* 1179-1198.

Rutter, M. (1989). Pathways from childhood to adult life. *Journal of Child Psychology and Psychiatry, 30,* 23-51.

Safran, J.D. (1990a). Towards a refinement of cognitive therapy in light of interpersonal theory: I. Theory. *Clinical Psychology Review, 10,* 87-105.

Safran, J.D. (1990b). Towards a refinement of cognitive therapy in light of interpersonal theory: II. Practice. *Clinical Psychology Review, 10,* 107-121.

Safran, J.D., & Segal, Z.V. (1990). *Interpersonal process in cognitive therapy.* New York: Basic Books.

Schaffer, H.R. (1996). *Social development.* Oxford: Blackwell.

Scott, S. (2001). Parent training: Where are we now? In W. Yule & O. Udwin (Eds.), *Parenting: Applications in clinical practice - Association for Child Psychology & Psychiatry, Occasional Papers No.18* (pp. 5-16). London: ACPP.

Scott, S. (2003). Integrating attachment theory with other approaches to developmental psychopathology. *Attachment and Human Development, 5,* 307-312.

Scott, S., Knapp, M., Henderson, J., & Maughan, B. (2001). Financial cost of social exclusion: Follow up study of antisocial children into adulthood. *British Medical Journal, 323,* 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. *British Medical Journal, 323,* 194-198.

Shaw, D.S., Winslow, E.B., Owens, E.B., Vondra, J.I., Cohn, J.F., & Bell, R.Q. (1998). The development of early externalising problems among children from low-income families: A transformational perspective. *Journal of Abnormal Child Psychology, 26,* 95-107.

Sigel, I.E. (1985). *Parental belief systems: The psychological consequences for children.* Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Southam-Gerow, M.A., & Kendall, P.C. (1997). Parent-focused and cognitive-behavioural treatments of antisocial youth. In D.M. Stoff & J. Breiling (Eds.), *Handbook of antisocial behaviour* (pp. 384-394). New York: John Wiley & Sons.

Soygut, G., & Savasir, I. (2001). The relationship between interpersonal schemas and depressive symptomatology. *Journal of Counselling Psychology, 48,* 359-364.

Soygut, G., Nelson, L., & Safran, J.D. (2001). The relationship between interpersonal schemas and personality characteristics. *Journal of Cognitive Psychotherapy: An International Quarterly, 15,* 99-108.

Stallard, P. (2002). Cognitive behaviour therapy with children and young people: A selective review of key issues. *Behavioural and Cognitive Psychotherapy, 30,* 297-309.

Steele, H., Steele, M., & Fonagy, P. (1996). Associations among attachment classifications of mothers, fathers, and their infants. *Child Development, 67,* 541-555.

Stouthamer-Loeber, M., Loeber, R., Wei, E., Farrington, D.P., & Wilkstrom, P.O.H. (2002). Risk and promotive effects in the explanation of persistent serious delinquency in boys. *Journal of Consulting and Clinical Psychology, 70,* 111-123.

Sutton, C. (2001). Resurgence of attachment (behaviours) within a cognitive behavioural intervention: Evidence from research. *Behavioural and Cognitive Psychotherapy, 29,* 357-366.

Tabachnick, B.G., & Fidell, L.S. (2001). *Using multivariate statistics* (4th ed.). Boston: Allyn & Bacon.

Thompson, R.A., & Raikes, H.A. (2003). Toward the next quarter century: Conceptual and methodological challenges for attachment theory. *Development and Psychopathology, 15,* 691-718.

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., Juffer, F., & Duyvesteyn, M.G.C. (1995). Breaking the intergenerational cycle of insecure attachment: A review of the effects of attachment-based interventions on maternal sensitivity and infant security. *Journal of Child Psychology and Psychiatry, 36,* 225-248.

Waters, E., Posada, G., Crowell, J., & Lay, K. (1993). Is attachment theory ready to contribute to our understanding of disruptive behaviour problems? *Development and Psychopathology, 5,* 215-224.

Webster-Stratton, C. (1985). Mother perceptions and mother-child interactions: Comparison of a clinic-referred and a non-clinic group. *Journal of Clinical Child Psychology, 14,* 334-339.

Webster-Stratton, C. (1988). Mothers' and fathers' perceptions of child deviance: Roles of parent and child behaviours and parent adjustment. *Journal of Consulting and Clinical Psychology, 56,* 909-915.

Webster-Stratton, C. (1991). Annotation: Strategies for helping families with conduct-disordered children. *Journal of Child Psychology and Psychiatry, 32,* 1047-1062.

Webster-Stratton, C. (1994). Advancing videotape parent training: A comparison study. *Journal of Consulting and Clinical Psychology, 62,* 583-593.

Webster-Stratton, C., & Hammond, M. (1990). Predictors of treatment outcome in parent training for families with conduct problem children. *Behaviour Therapy, 21,* 319-337.

Webster-Stratton, C., & Hammond, M. (1997). Treating children with early-onset conduct problems: A comparison of child and parent training interventions. *Journal of Consulting and Clinical Psychology, 65,* 93-109.

Webster-Stratton, C., & Hammond, M. (1999). Marital conflict management skills, parenting style, and early-onset conduct problems: Processes and pathways. *Journal of Child Psychology and Psychiatry, 40,* 917-927.

White, C., McNally, D., & Cartwright-Hatton, S. (2003). Cognitively enhanced parent training. *Behavioural and Cognitive Psychotherapy, 31,* 99-102.

Wilkstrom, P.O., & Loeber, R. (2000). Do disadvantaged neighbourhoods cause well-adjusted children to become adolescent delinquents? A study of male juvenile serious offending, risk and protective factors, and neighbourhood context. *Criminology, 38,* 1109-1141.

Winnicott, D.W. (1964). *The child, the family, and the outside world.* Harmondsworth: Penguin Books.

Woodruff-Borden, J., Morrow, C., Bourland, S., & Cambron, S. (2002). The behaviour of anxious parents: Examining mechanisms of transmission of anxiety from parent to child. *Journal of Clinical Child and Adolescent Psychology, 31,* 364-374.

World Health Organization (1992). *The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines.* Geneva: World Health Organisation.

Zoccolillo, M., & Rogers, K. (1991). Characteristics and outcome of hospitalised adolescent girls with conduct disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 30,* 973-981.

APPENDIX 1: Ethics committee approval letter

Institute of Psychiatry

at The Maudsley

Ethical Committee
(Research)
Research Ethics Co-ordinator
Margaret M Chambers Msc

P006, Room W109
De Crespigny Park
Denmark Hill
London SE5 8AF
Tel 020 7848 0797
Fax 020 7848 0147
Email m.chambers@iop.kcl.ac.uk

KING'S College LONDON

University of London

ETHICAL COMMITTEE (RESEARCH)

22 April 2003

Dr C Day
North Southwark Community Child and Family Service
151 Blackfriars Road
London SE1 8EL

Dear Dr Day

Re: Childhood onset conduct problems: the role of mothers' interpersonal schemas and their relationship to parental behaviour (059/03)

The Ethical Committee (Research) considered and approved the above study at its meeting on 11 April 2003. **Please note that this approval is dependent on confirmation that Joanne Potier has an honorary contract with the Trust.**

Initial approval is given for one year. This will be extended automatically only on completion of annual progress reports on the study when requested by the EC(R). Please note that as Principal Investigator you are responsible for ensuring these reports are sent to us.

Please note that projects which have not commenced within two years of original approval must be re-submitted to the EC(R).

Any serious adverse events which occur in connection with this study should be reported to the Committee using the attached form.

Please quote Study No. 059/03 in all future correspondence.

Yours sincerely,

Margaret M Chambers
Research Ethics Coordinator

APPENDIX 2: Information letter to parents

South London and Maudsley NHS
NHS Trust

North Southwark
Community Child & Family Service
151 Blackfriars Road
London SE1 8EL

Tel: 020-7620 0923
Fax: 020-7620 0924

How do mothers' thoughts influence their children's behaviour?

LETTER TO PARENTS

Dear Parent

My name is Joanne Potier and I am a trainee clinical psychologist. Your child's school is taking part in a student project that I am doing looking at children's behaviour and the role of mother's thoughts in how they manage their child.

At times the behaviour of children can be hard to manage. However, some parents sometimes need extra help. This project aims to help us to understand a bit more about some of the thoughts that can help parents cope. In order to do this we are interested in talking to a whole range of parents.

I would really like to talk to as many mothers of 7 to 11 year old boys as possible to find out a little more about their child's behaviour. After doing this, I will approach parents who are eligible for the project. If you and your child are interested in taking part in this study, you will be invited to fill in a few questionnaires and do two short tasks with your child which will be videotaped. After this, you can discuss these with me and talk about any issues of interest or concern.

I will be at the school both before and after lessons from (date) until (date) before the summer holidays and then at the same times from (date) September after the summer holidays. I will try and talk to as many of you as I can to find out if you are interested in taking part in the project. You are also welcome to come and find me at these times if you are interested. I will be in the playground and will be able to give further information about what is involved.

Thank you for your time.

Yours sincerely

Joanne Potier
Trainee Clinical Psychologist (researcher)

Crispin Day
Consultant Clinical Psychologist (Principal Investigator)

APPENDIX 3: Parent and child information sheets and consent forms

South London and Maudsley NHS
NHS Trust

North Southwark
Community Child & Family Service
151 Blackfriars Road
London SE1 8EL

Tel: 020-7620 0923
Fax: 020-7620 0924

Identification number for this study:

How do mothers' thoughts influence their children's behaviour?

INFORMATION and CONSENT FORM FOR PARENTS

Dear Parent

Your child's school is taking part in a student project looking at children's behaviour and the role that mothers' thoughts or beliefs play in the behaviour of their child. This will help us to understand what kinds of thoughts or beliefs are helpful or unhelpful when children are having difficulties with their behaviour.

This letter is to invite you and your child to take part in this project. Before you decide whether or not you want to take part, it is important for you to understand why the project is being done, and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you want to take part. Thank you for reading this.

What is the project and why have I been chosen?
Studies have shown that parents have an important role to play when their children are having difficulties. This project aims to look at the ways that mothers of children with behaviour difficulties and mothers of children without significant behaviour difficulties think about their relationships with other people, including their own mother and father, and their child. We are also interested in finding out if this is related to how mothers behave when they are with their child. We think that some kinds of thoughts about relationships will help parents to cope better when their child is having difficulties.

We are inviting you to take part in this project because your child is between 7 and 11 years of age and, according to what you have told me, either does/does not have any significant difficulties with his behaviour at the moment.

Do I have to take part?
It is up to you whether or not you want to take part. If you do take part, you will be given this information sheet to keep. You will also be asked to sign a consent form, one copy of which you will keep. Even if you take part, you are still free to change your mind at any time and without giving a reason

Does my child have to take part?
Your child does not have to take part in this study if he does not want to. It will be explained to him and he will be given his own information sheet. As your child is between 7 and 11 years old, if he decides he wants to take part in the project then

you will need to give your consent on his behalf. If your child does take part, he can change his mind at any time and without giving a reason.

What does taking part involve?
If you both decide to take part in the project, you will be asked to fill in 3 questionnaires, and you and your child will be asked to do two short tasks together which will be videotaped. Both should take no more than one hour of your time and will be done after school in a room at the school.

The questionnaires will ask you about your child's behaviour and about you as a parent. The videotaped tasks will involve you and your child doing puzzles together and having a short conversation about something that has happened recently.

What are the known risks of the project?
Both the questionnaires and the videotaped tasks have been used in other studies before. However, some children might find the puzzles frustrating. The researcher will be available throughout the study to discuss any issues raised or to talk about any aspect of the study with you.

What information will be held about me?
Whilst we will aim to keep all information that is collected from you during the project private, confidentiality will be limited as far as the law allows. Any information about you will have your name and address stored separately so that you cannot be recognised from it. In addition, any videotapes used in the study, for videotaping the tasks, will be destroyed once the study has finished. In writing articles for publication based on this project, we will not reveal the identity of anyone who took part.

The project is expected to finish in June 2004. After this date, the results will be made available to you if you would like to see them.

Who has reviewed the project?
An ethics committee reviews all proposals for research before they can proceed. This study has been reviewed by the South London & Maudsley NHS Trust and The Institute of Psychiatry Ethical Committee (Research) and has been approved by them.

Any questions?
Please do not hesitate to contact Joanne Potier (phone number below) if you do not understand anything in this information sheet or if you would like more information about the project.

Please read the following carefully and put your initials in the boxes if you agree:

Please initial box

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

2. I confirm that I have had enough time to decide whether or not I want to take part. ☐

3. I understand that my taking part is voluntary and that I am free to stop doing the study at any time, without giving any reason. ☐

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

5. I agree that my child can take part in the above study. ☐

Name of participant	Date	Signature
Name of person taking consent	Date	Signature

Joanne Potier	**0207 620 0923**
Researcher (to be contacted if there are any problems)	Telephone number

THANK YOU FOR YOUR HELP.

1 copy to be kept by participant
1 copy to be kept as part of study documentation

South London and Maudsley
NHS Trust

North Southwark
Community Child & Family Service
151 Blackfriars Road
London SE1 8EL

Tel: 020-7620 0923
Fax: 020-7620 0924

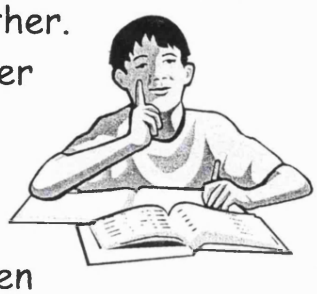
How do mothers' thoughts influence their children's behaviour?

Information for children

My name is Joanne Potier. I am doing a project at your school. I want to find out if the way mums think makes a difference to what they do with their children.

You and your mum can take part if you want. If you decide you want to take part, your mum will be asked to fill in some forms. After this, I will ask you and your mum to do some word puzzles together. I will also ask you both to talk about something that's happened recently. Both these things will take 20 minutes.

So I can remember what you and your mum have both said, I will video you doing the puzzles and the talking together. You can do these at a room in the school one day after school.



Nobody else but me will watch the video and the tape will be kept safe so nobody else can see it. When the project is finished, I will destroy this tape so nobody else can see it.

If you find anything hard to understand, just ask me. This is not a test and there is no right or wrong way of doing it. If you are worried about doing the puzzles or talking to your mum, I hope you'll be able to tell me straight away. If after you have started you want to stop, then that will be fine.

THANK YOU FOR YOUR HELP!

APPENDIX 4: Screening questionnaires

Strengths and Difficulties Questionnaire

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of the child's behaviour over the last six months or this school year.

Child's Name ..... Male/Female

Date of Birth .....

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot stay still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils etc.)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, down-hearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Signature ..... Date.....

Parent/Teacher/Other (please specify:)

Thank you very much for your help

© Robert Goodman, 1999

Child Behaviour Checklist
(externalising scale)

- Below is a list of items that describe children and young people. For each item, please circle the number that best describes your child ***now or within the past 6 months.***
- Please circle the **2** if the item is ***very true or often true*** of your child.
- Circle the **1** if the item is ***somewhat or sometimes true*** of your child.
- Circle the **0** if the item is **not true** of your child.
- Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = Not true (as far as you know)
1 = Somewhat or sometimes true
2 = Very True or Often True

1. Argues a lot	**0**	**1**	**2**
2. Bragging, boasting	**0**	**1**	**2**
3. Cruelty, bullying, or meanness to others	**0**	**1**	**2**
4. Demands a lot of attention	**0**	**1**	**2**
5. Destroys his/her own things	**0**	**1**	**2**
6. Destroys things belonging to his/her own family	**0**	**1**	**2**
7. Disobedient at home	**0**	**1**	**2**
8. Disobedient at school	**0**	**1**	**2**
9. Doesn't seem to feel guilty after misbehaving	**0**	**1**	**2**
10. Easily jealous	**0**	**1**	**2**
11. Gets in many fights	**0**	**1**	**2**
12. Hangs around with others who get into trouble	**0**	**1**	**2**
13. Lying or cheating	**0**	**1**	**2**
14. Physically attacks people	**0**	**1**	**2**

Continued on next page.....

15. Prefers being with older kids	0	1	2
16. Runs away from home	0	1	2
17. Screams a lot	0	1	2
18. Sets fires	0	1	2
19. Showing off or clowning	0	1	2
20. Steals at home	0	1	2
21. Steals outside the home	0	1	2
22. Stubborn, sullen, or irritable	0	1	2
23. Sudden changes in mood or feelings	0	1	2
24. Swearing or obscene language	0	1	2
25. Talks too much	0	1	2
26. Teases a lot	0	1	2
27. Temper tantrums or hot temper	0	1	2
28. Thinks about sex too much	0	1	2
29. Threatens people	0	1	2
30. Truancy, skips school	0	1	2
31. Unusually loud	0	1	2
32. Uses alcohol or drugs for non-medical purposes (describe):_____	0	1	2
33. Vandalism	0	1	2

THANK YOU

© T.M. Achenbach (1991)

APPENDIX 5: Self-report questionnaires

ID no:

Family, Education, Occupation & Ethnicity

We would be grateful if you would please answer the following questions about your family, education, occupation and ethnicity as best you can. For questions where you have to think about a child, we would like you to think about your son who is taking part in this project with you.

Your answers will be completely confidential.

Your name .....**& date of birth**.....

Your child's name.....**& date of birth**.....

Today's date .....

(1) Please indicate who lives in your household:

Number of adults (please state their relationship to you e.g. partner, mother-in-law etc.)

.....

Number of children (please state their relationship to you)

.....

(2) Please indicate your marital status (please circle the one that applies to you).

Single Married Separated Divorced Remarried Widowed

(3) Is your child adopted (please circle)? Yes No **A foster child?** Yes No

(4) What is your ethnic group? (please choose one section from *a* to *f* then tick the appropriate box)

a. White

☐ British ☐ Irish

☐ Any other White background (please describe.....)

b. Black or Black British

☐ Caribbean ☐ African

☐ Any other black background (please describe.....)

c. Asian or Asian British

☐ Indian ☐ Pakistani ☐ Bangladeshi

☐ Any other Asian background (please describe.....)

d. Chinese

☐ Chinese

e. Mixed

☐ White and Black Caribbean ☐ White and Black African ☐ White and Asian

☐ Any other Mixed background (please describe.....)

f. Other (please describe.....)

(5) Which of these qualifications do you have? (please tick all the boxes that apply to you or, if not specified, the nearest equivalent).

☐ 1+ O Levels/CSEs/GCSEs (any grades)

☐ 5+ O Levels, 5+CSEs (grade 1)

☐ 5+ GCSEs (grades A-C), School Certificate

☐ 1+ A Levels/AS Levels

☐ 2+ A levels, 4+ AS Levels, Higher School Certificate

☐ First Degree (eg BA, BSc)

☐ Higher Degree (eg MA, PhD, PGCE, post-graduate certificates/diplomas)

☐ NVQ Level 1, Foundation GNVQ

☐ NVQ Level 2, Intermediate GNVQ

☐ NVQ Level 3, Advanced GNVQ

☐ NVQ Levels 4-5, HNC, HND

☐ Other Qualifications (eg City and Guilds, RSA/OCR, EC/Edexcel)

☐ No Qualifications: In which school year did you leave secondary education?

.....

(6) Please tick the box that most closely describes your occupation.

- ☐ Professional post (eg teacher, doctor, accountant, solicitor)
- ☐ White collar worker (eg police constable, bank clerk or other administrative role, computer programmer, nurse)
- ☐ Skilled manual worker (eg plumber, electrician, HGV or train driver)
- ☐ Semi-skilled or unskilled manual worker (eg porter, van driver, packer)
- ☐ Homemaker
- ☐ Without income:
  - ☐ Unemployed: For how long have you been unemployed? .....
  - ☐ State benefits: For how long have you been drawing benefits? .....
  - ☐ Other (please describe) .....

(6a) If employed, please write the full title of your main job.

.....

(6b) How many hours do you usually work in a week?

.....

(7) If you have a partner who lives with you, please tick the box that most closely describes his occupation.

- ☐ Professional post (eg teacher, doctor, accountant, solicitor)
- ☐ White collar worker (eg police constable, bank clerk or other administrative role, computer programmer, nurse)
- ☐ Skilled manual worker (eg plumber, electrician, HGV or train driver)
- ☐ Semi-skilled or unskilled manual worker (eg porter, van driver, packer)
- ☐ Homemaker
- ☐ Without income:
  - ☐ Unemployed: For how long has he been unemployed? .....
  - ☐ State benefits: For how long has he been drawing benefits? .....
  - ☐ Other (please describe) .....

(7a) If employed, please write the full title of his main job.

.....

(7b) How many hours does he usually work in a week?

.....

Thank you

Interpersonal Schema Questionnaire - Revised

(ISQ)

Jeremy D. Safran & Cathryn Hill

© 1989

This questionnaire is designed to assess the types of responses people receive when they act in certain ways. We would like you to imagine yourself in each of the following situations described in the questionnaire, and then to imagine the reactions of the person whom you are with, that is your own Mum, your Dad and your child.

At the top of each page is a list of possible responses; for each situation please circle the letter of the response that SEEMS CLOSEST to how you think the person in question would react. Each time, it is not necessary that the response you choose fits exactly with your ideas, but choose the answer that is nearest to how the person would react. For instance, if the person would be "disappointed" but not "resentful" or "critical," you would still choose response B.

Each question then asks you to show on the scale provided how much you would like this response. If it would make you feel good, circle a number toward the "very much" end of the scale, and if it would make you feel unhappy, uncomfortable, or if it is something you would prefer to avoid, circle a number toward the "not at all" end of the scale. If you feel completely neutral about the response, circle number 4.

The questionnaire asks you to imagine yourself in various situations with your Mum, your Dad, and your child. If you do not know or cannot remember your Mum and/or Dad, please choose someone who is important and like a mother or father figure for you, such as an aunt, uncle, grandparent, step-parent, or guardian. For questions where you have to think about a child, we would like you to think about your son who is taking part in this project with you.

RESPONSES:

A She would take charge, or try to influence me.
B She would be disappointed, resentful, or critical.
C She would be impatient, or argumentative.
D She would be distant, or unresponsive.
E She would go along with me, or act unsure.
F She would respect me, or trust me.
G She would be warm, or friendly.
H She would show interest, or let me know what she thinks.

For the following situations please imagine yourself with your MUM.

1. **Imagine that you and your Mum are working together on something. You know more about this area than your Mum, so you take the lead in making decisions.**

   How do you think your Mum would react to this? A B C D E F G H

   How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

2. **Imagine yourself being angry and argumentative towards your Mum.**

   How do you think your Mum would react to this? A B C D E F G H

   How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

3. **Imagine yourself being weak or passive and wanting your Mum to take the lead.**

   How do you think your Mum would react to this? A B C D E F G H

   How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

4. **Imagine yourself being friendly and helpful with your Mum.**

   How do you think your Mum would react to this? A B C D E F G H

   How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

RESPONSES:

A She would take charge, or try to influence me.
B She would be disappointed, resentful, or critical.
C She would be impatient, or argumentative.
D She would be distant, or unresponsive.
E She would go along with me, or act unsure.
F She would respect me, or trust me.
G She would be warm, or friendly.
H She would show interest, or let me know what she thinks.

For the following situations please imagine yourself with your MUM.

5. **Imagine yourself in a game (tennis, scrabble etc.) with your Mum. You act very competitive and work hard to win the game.**

   How do you think your Mum would react to this? A B C D E F G H

   How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

6. **Imagine yourself being deep in your own thoughts and withdrawn with your Mum.**

   How do you think your Mum would react to this? A B C D E F G H

   How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

7. **Imagine yourself in a lazy mood where you feel like just going along with whatever your Mum is doing.**

   How do you think your Mum would react to this? A B C D E F G H

   How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

8. **Imagine yourself showing real interest and concern for your Mum.**

   How do you think your Mum would react to this? A B C D E F G H

   How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

RESPONSES:

A She would take charge, or try to influence me.
B She would be disappointed, resentful, or critical.
C She would be impatient, or argumentative.
D She would be distant, or unresponsive.
E She would go along with me, or act unsure.
F She would respect me, or trust me.
G She would be warm, or friendly.
H She would show interest, or let me know what she thinks.

For the following situations please imagine yourself with your MUM.

9. **Imagine a situation where you feel that your Mum has disappointed you.**

   How do you think your Mum would react to this? A B C D E F G H

   How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

10. **Imagine yourself in a serious mood where you are not interested and not sociable with your Mum.**

    How do you think your Mum would react to this? A B C D E F G H

    How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
    Not at all Very much

11. **Imagine yourself telling your Mum something that is important to you.**

    How do you think your Mum would react to this? A B C D E F G H

    How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
    Not at all Very much

12. **Imagine feeling free and spontaneous with your Mum.**

    How do you think your Mum would react to this? A B C D E F G H

    How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
    Not at all Very much

RESPONSES:

A She would take charge, or try to influence me.
B She would be disappointed, resentful, or critical.
C She would be impatient, or argumentative.
D She would be distant, or unresponsive.
E She would go along with me, or act unsure.
F She would respect me, or trust me.
G She would be warm, or friendly.
H She would show interest, or let me know what she thinks.

For the following situations please imagine yourself with your MUM.

13. Imagine that you have had a terrible day and are feeling fed up with the whole world. You are definitely not feeling warm or friendly toward anyone.

How do you think your Mum would react to this? A B C D E F G H

How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

14. Imagine feeling not very confident or sure of yourself and feeling dependent on your Mum.

How do you think your Mum would react to this? A B C D E F G H

How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

15. Imagine yourself feeling warm and affectionate towards your Mum.

How do you think your Mum would react to this? A B C D E F G H

How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

16. Imagine yourself acting independently and confidently about something you have never done before and not feeling that you need help from your Mum.

How do you think your Mum would react to this? A B C D E F G H

How much would you like your Mum reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

RESPONSES:

A He would take charge, or try to influence me.
B He would be disappointed, resentful, or critical.
C He would be impatient, or argumentative.
D He would be distant, or unresponsive.
E He would go along with me, or act unsure.
F He would respect me, or trust me.
G He would be warm, or friendly.
H He would show interest, or let me know what he thinks.

For the following situations please imagine yourself with your DAD.

1. **Imagine that you and your Dad are working together on something. You know more about this area than your Dad, so you take the lead in making decisions.**

   How do you think your Dad would react to this? A B C D E F G H

   How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

2. **Imagine yourself being angry and argumentative towards your Dad.**

   How do you think your Dad would react to this? A B C D E F G H

   How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

3. **Imagine yourself being weak or passive and wanting your Dad to take the lead.**

   How do you think your Dad would react to this? A B C D E F G H

   How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

4. **Imagine yourself being friendly and helpful with your Dad.**

   How do you think your Dad would react to this? A B C D E F G H

   How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

RESPONSES:

A He would take charge, or try to influence me.
B He would be disappointed, resentful, or critical.
C He would be impatient, or argumentative.
D He would be distant, or unresponsive.
E He would go along with me, or act unsure.
F He would respect me, or trust me.
G He would be warm, or friendly.
H He would show interest, or let me know what he thinks.

For the following situations please imagine yourself with your DAD.

5. **Imagine yourself in a game (tennis, scrabble etc.) with your Dad. You act very competitive and work hard to win the game.**

   How do you think your Dad would react to this? A B C D E F G H

   How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

6. **Imagine yourself being deep in your own thoughts and withdrawn with your Dad.**

   How do you think your Dad would react to this? A B C D E F G H

   How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

7. **Imagine yourself in a lazy mood where you feel like just going along with whatever your Dad is doing.**

   How do you think your Dad would react to this? A B C D E F G H

   How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

8. **Imagine yourself showing real interest and concern for your Dad.**

   How do you think your Dad would react to this? A B C D E F G H

   How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

RESPONSES:

A He would take charge, or try to influence me.
B He would be disappointed, resentful, or critical.
C He would be impatient, or argumentative.
D He would be distant, or unresponsive.
E He would go along with me, or act unsure.
F He would respect me, or trust me.
G He would be warm, or friendly.
H He would show interest, or let me know what he thinks.

For the following situations please imagine yourself with your DAD.

9. Imagine a situation where you feel that your Dad has disappointed you.

How do you think your Dad would react to this? A B C D E F G H

How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

10. Imagine yourself in a serious mood where you are not interested and not sociable with your Dad.

How do you think your Dad would react to this? A B C D E F G H

How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

11. Imagine yourself telling your Dad something that is important to you.

How do you think your Dad would react to this? A B C D E F G H

How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

12. Imagine feeling free and spontaneous with your Dad.

How do you think your Dad would react to this? A B C D E F G H

How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

RESPONSES:

A He would take charge, or try to influence me.
B He would be disappointed, resentful, or critical.
C He would be impatient, or argumentative.
D He would be distant, or unresponsive.
E He would go along with me, or act unsure.
F He would respect me, or trust me.
G He would be warm, or friendly.
H He would show interest, or let me know what he thinks.

For the following situations please imagine yourself with your DAD.

13. Imagine that you have had a terrible day and are feeling fed up with the whole world. You are definitely not feeling warm or friendly toward anyone.

How do you think your Dad would react to this? A B C D E F G H

How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

14. Imagine feeling not very confident or sure of yourself and feeling dependent on your Dad.

How do you think your Dad would react to this? A B C D E F G H

How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

15. Imagine yourself feeling warm and affectionate towards your Dad.

How do you think your Dad would react to this? A B C D E F G H

How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

16. Imagine yourself acting independently and confidently about something you have never done before and not feeling that you need help from your Dad.

How do you think your Dad would react to this? A B C D E F G H

How much would you like your Dad reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

RESPONSES:

A He would take charge, or try to influence me.
B He would be disappointed, resentful, or critical.
C He would be impatient, or argumentative.
D He would be distant, or unresponsive.
E He would go along with me, or act unsure.
F He would respect me, or trust me.
G He would be warm, or friendly.
H He would show interest, or let me know what he thinks.

For the following situations please imagine yourself with your CHILD.

1. **Imagine that you and your child are working together on something. You know more about this area than your child, so you take the lead in making decisions.**

   How do you think your child would react to this? A B C D E F G H

   How much would you like your child reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

2. **Imagine yourself being angry and argumentative towards your child.**

   How do you think your child would react to this? A B C D E F G H

   How much would you like your child reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

3. **Imagine yourself being weak or passive and wanting your child to take the lead.**

   How do you think your child would react to this? A B C D E F G H

   How much would you like your child reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

4. **Imagine yourself being friendly and helpful with your child.**

   How do you think your child would react to this? A B C D E F G H

   How much would you like your child reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

RESPONSES:

A He would take charge, or try to influence me.
B He would be disappointed, resentful, or critical.
C He would be impatient, or argumentative.
D He would be distant, or unresponsive.
E He would go along with me, or act unsure.
F He would respect me, or trust me.
G He would be warm, or friendly.
H He would show interest, or let me know what he thinks.

For the following situations please imagine yourself with your CHILD.

5. **Imagine yourself in a game (tennis, scrabble etc.) with your child. You act very competitive and work hard to win the game.**

   How do you think your child would react to this? A B C D E F G H

   How much would you like your child reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

6. **Imagine yourself being deep in your own thoughts and withdrawn with your child.**

   How do you think your child would react to this? A B C D E F G H

   How much would you like your child reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

7. **Imagine yourself in a lazy mood where you feel like just going along with whatever your child is doing.**

   How do you think your child would react to this? A B C D E F G H

   How much would you like your child reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

8. **Imagine yourself showing real interest and concern for your child.**

   How do you think your child would react to this? A B C D E F G H

   How much would you like your child reacting like this?: 1----2----3----4----5----6----7
   Not at all Very much

RESPONSES:

A He would take charge, or try to influence me.
B He would be disappointed, resentful, or critical.
C He would be impatient, or argumentative.
D He would be distant, or unresponsive.
E He would go along with me, or act unsure.
F He would respect me, or trust me.
G He would be warm, or friendly.
H He would show interest, or let me know what he thinks.

For the following situations please imagine yourself with your CHILD.

9. Imagine a situation where you feel that your child has disappointed you.

How do you think your child would react to this? A B C D E F G H

How much would you like your child reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

10. Imagine yourself in a serious mood where you are not interested and not sociable with your child.

How do you think your child would react to this? A B C D E F G H

How much would you like your child reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

11. Imagine yourself telling your child something that is important to you.

How do you think your child would react to this? A B C D E F G H

How much would you like your child reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

12. Imagine feeling free and spontaneous with your child.

How do you think your child would react to this? A B C D E F G H

How much would you like your child reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

RESPONSES:

A He would take charge, or try to influence me.
B He would be disappointed, resentful, or critical.
C He would be impatient, or argumentative.
D He would be distant, or unresponsive.
E He would go along with me, or act unsure.
F He would respect me, or trust me.
G He would be warm, or friendly.
H He would show interest, or let me know what he thinks.

For the following situations please imagine yourself with your CHILD.

13. Imagine that you have had a terrible day and are feeling fed up with the whole world. You are definitely not feeling warm or friendly toward anyone.

How do you think your child would react to this? A B C D E F G H

How much would you like your child reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

14. Imagine feeling not very confident or sure of yourself and feeling dependent on your child.

How do you think your child would react to this? A B C D E F G H

How much would you like your child reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

15. Imagine yourself feeling warm and affectionate towards your child.

How do you think your child would react to this? A B C D E F G H

How much would you like your child reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

16. Imagine yourself acting independently and confidently about something you have never done before and not feeling that you need help from your child.

How do you think your child would react to this? A B C D E F G H

How much would you like your child reacting like this?: 1----2----3----4----5----6----7
Not at all Very much

THANK YOU.

Parenting Stress Index
(Short Form)

In answering the following questions, please think about your son who is taking part in the project with you.

The questions ask you to mark the degree to which you agree or disagree with each statement by circling the number which best matches how you feel. Please circle the answer which best describes how you are feeling. If you are not sure please circle #3. There are no right or wrong answers.

1	2	3	4	5
Strongly agree	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**

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

PD [ ]

13. My child rarely does things for me that make me feel good.	**1 2 3 4 5**
14. Most times I feel that my child does not like me and does not want to be close to me.	**1 2 3 4 5**
15. My child smiles at me much less than I expected.	**1 2 3 4 5**
16. When I do things for my child I get the feeling that my efforts are not appreciated very much.	**1 2 3 4 5**
17. When playing, my child doesn't often giggle or laugh.	**1 2 3 4 5**
18. My child doesn't seem to learn as quickly as most children.	**1 2 3 4 5**
19. My child doesn't seem to smile at me as much as most children.	**1 2 3 4 5**
20. My child is not able to do as much as I expected.	**1 2 3 4 5**
21. It takes a long time and it is very hard for my child for my child to get used to new things.	**1 2 3 4 5**
22. 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 good parent	**1 2 3 4 5**
23. I expected to have closer and warmer feelings for my child than I do and this bothers me.	**1 2 3 4 5**
24. Sometimes my child does things that bother me just to be mean.	**1 2 3 4 5**

PC-DI [ ]

25. My child seems to cry or fuss more often than most children.	**1 2 3 4 5**
26. My child generally wakes up in a bad mood.	**1 2 3 4 5**
27. I feel that my child is very moody and easily upset.	**1 2 3 4 5**
28. My child does a few things which bother me a great deal.	**1 2 3 4 5**
29. My child reacts very strongly when something happens that my child doesn't like.	**1 2 3 4 5**

30. My child gets upset easily over the smallest thing. **1 2 3 4 5**

31. My child's sleeping or eating schedule was much harder to establish than I expected. **1 2 3 4 5**

32. I have found that getting my child to do something or stop doing something is;

1. much harder than I expected
2. somewhat harder than I expected
3. about as hard as I expected **1 2 3 4 5**
4. somewhat easier than I expected
5. much easier than I expected

33. Think carefully and count the number of things which your child does that bother you. For example, dawdles, refuses to listen, overactive, cries, interrupts, fights, whines etc. Please circle the number which includes the number of things you counted.

1. 10+ 2. 8-9 3. 6-9 4. 4-5 5. 1-3 **1 2 3 4 5**

34. There are some things my child does that really bother me a lot. **1 2 3 4 5**

35. My child turned out to be more of a problem than I expected. **1 2 3 4 5**

36. My child makes more demands of me than most children. **1 2 3 4 5**

DC [ ]

Total score [ ]

© R. Abidin, 1990.

APPENDIX 6: Anagram task (task instructions and anagrams)

Interaction task 1: Word puzzles

Task description for parents (to be read by experimenter)

Your child will now be given a set of puzzles to do. The puzzles are anagrams. This means we'll give your child sets of letters that make a word, but the letters are in the wrong order. Your child's task is to work out what the word should be and to put the letters in the right order in the box provided.

Your child will be given 10 minutes to get as many of the puzzles right as he can.

You will be with your child whilst he does the puzzles. First of all, we would like you to explain the task to your child so he knows what to do. During the task you are free to help *(name of child)* in whatever way you want to, but we would ask you not to give him the actual answer if you work it out first. We would like *(name of child)* to solve the puzzles himself.

You and *(name of child)* will be videoed whilst you do this task. I will leave the room and come back in after 10 minutes.

Do you have any questions?

Word Puzzles

Try to make as many real words out of the letters below. You have 10 minutes. Try to do as many as you can.

Here is an example:

TCA	becomes	CAT

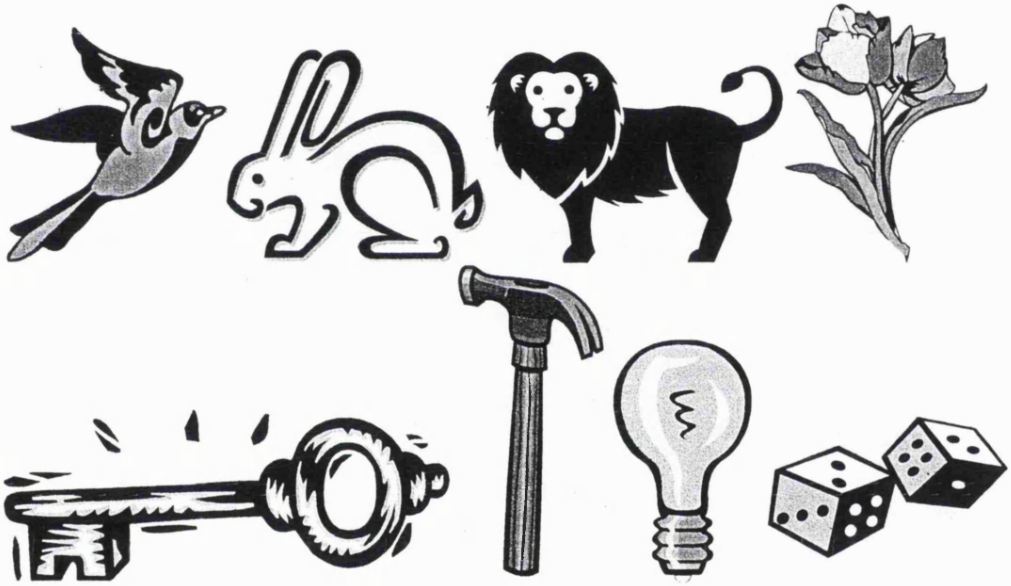
ANBANA	becomes	
KEYMON	becomes	
BBSAATCLAI	becomes	
CFAPIIICMS	becomes	
IAAICLNTSM	becomes	
CCRGPYAOAH	becomes	
PTTSEOOH	becomes	
ENAIGTTSSM	becomes	
LAAEONJPS	becomes	
SNYRAOCLPE	becomes	
TTEAUBHAI	becomes	
ABRFCTIAE	becomes	
MMDCIAAAA	becomes	
CCDIEFLAI	becomes	
AUNDCDHHS	becomes	
TESVNTGEI	becomes	

Word Puzzles

You probably found the last set of puzzles very difficult!
They would have been difficult even for an adult to do.

These ones are not quite so hard. If you want to, you can have a go at these and see how you get on.

These pictures might help you.



Example TCA	becomes	CAT
NOIL	becomes	
RBID	becomes	
BBITRA	becomes	
CDIE	becomes	
YKE	becomes	
MMHAER	becomes	
TGHLI	becomes	
LOWFRE	becomes	

APPENDIX 7: Discussion task (instructions and prompts)

Interaction task 2: Discussion task

Discussion task description

I am now going to ask you to talk about a situation that has happened recently. I would like you to think about one of the most recent times when *(child's name)* was angry. Try and think of a situation that you were involved in too. Can you think of something like this that has happened recently?

[Researcher obtains a description of the situation, making sure the emotion matches the situation].

Okay, I would like you to talk to each other about the situation. I would like you to talk about 4 things:

1. What happened?
2. What did each of you do and say?
3. Were you pleased with the way you acted towards each other?
4. Would you act the same way if the situation happened again?

[Above to be written on prompt cards]

I would like you to talk for 5 minutes. You will be videoed but try to pretend the camera isn't there and that you are having a usual conversation.

Do you have any questions? Remember, this discussion is about a situation where *(child's name)* was angry.

[Researcher to stay in the room but to avoid eye contact during the discussion. The only verbal prompt to be given is "please could you carry on talking for a few minutes" if they finish before the time. Prompt cards can be given.]

1. What happened?

2. What did each of you do and say?

3. Were you pleased with the way you acted towards each other?

4. Would you act the same way if the situation happened again?