

**INTER-PARENTAL CONFLICT AND CHILDREN'S
EXTERNALISING PROBLEMS DURING THE TRANSITION
FROM PRIMARY TO SECONDARY SCHOOL**

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SUMMARY

Background The prevalence rates of aggressive and antisocial behaviour among children and adolescents are a cause for concern among parents, teachers and policy makers. The aetiology of these dimensions of child psychopathology remains high on the research agenda. Attention has been directed at specific family relations, including inter-parental and parent-child relationships, and school-based factors, such as student-teacher relationships and school transitions, as aspects of children's social environment that may contribute to externalising problems. This thesis explores the role of home-school interplay by examining the pathways through which pre- and post-transition inter-parental conflict is associated with children and adolescents' externalising problems in secondary school.

Method The thesis employs a mixed methods design. Multivariate analysis using both cross-sectional and prospective, longitudinal research designs are used to assess relationships between inter-parental conflict and children's externalising problems during the transition from primary to secondary school. This is supplemented by a thematic analysis of qualitative responses identifying the school-based factors that children, their parents and teachers have identified as helpful and unhelpful to foster adaptation to school transition.

Results Findings emphasise the importance of family relations for children's school-based adjustment. Inter-parental conflict preceding and co-occurring with the school transition consistently predicted externalising problems in secondary school via children's responsibility attributions for the conflict. The results also underscore the value of considering the interface between home and school for understanding variation in children's psychological adjustment by showing that inter-parental conflict increases children's transition-related anxiety, which predicts poor adjustment to secondary school. Supportive teacher behaviour appears to be a significant factor

that helps children prepare for the transition. It appears to be particularly important for children experiencing heightened levels of discord and hostility within the home, who may be among those at greater risk of manifesting externalising problems.

Conclusions It is important to consider aspects of the home and school environment to understand variation in children's externalising problems in school during periods of transition. Results are discussed and recommendations made for policy and practice aimed at reducing aggression and antisocial behaviour during this critical period of normative life stress.

CHAPTER 1

Over the past decade there has been increased social and political interest in the prevalence of externalising behaviours, including aggression, antisocial behaviour and delinquency among children and adolescents in schools (Barnes, Belsky, Broomfield, Melhuish & The NESS research Team, 2006). In 2007, UNICEF reported that the well-being of British children was among the worst of 21 developed nations across the world. This report was followed by a study that was conducted by the Family and Parenting Institute (Pedace, 2008) to explore and compare child well-being in England, Scotland and Wales. Results indicated that around 10% of children in each of these countries had reports sent home to parents detailing concerns about their behaviour in school and that Wales had the highest rates of children under the age of 16 years having contact with police. To address these concerns government agencies have commissioned research to explore the causes of children's externalising problems and allocated millions of pounds to try to reduce these problems (Cowan & Cowan, 2008).

Results have indicated that the home and the school environment play a key role in orienting children's externalising problems and that the quality of relationships with parents and teachers can play an important role in reducing or perpetuating children's aggressive, delinquent and antisocial behaviour in school (e.g. Cowan & Cowan, 2008; Rutter et al., 2010). Policies have also been developed and reviewed that have aimed to strengthen family relations and improve the home-school interface because parental involvement in children's schooling and parental support for school policies is thought to play a key role in children's school-based functioning (e.g. Cowan & Cowan, 2008; Greenberg, Domitrovich & Bumbarger, 2001; Hill & Tyson, 2009; Rutter et al., 2010).

The research conducted in this thesis has been part funded by the Welsh Assembly Government (RES-000-22-1041) to further explore the interplay between the home and

school environment in children's school-based functioning and to address several unanswered questions identified within research, policy and practice. This thesis aims to identify specific factors of family functioning as well as specific aspects of the school environment that both contribute to children's increased externalising problems in school, and that can be targeted by policy and practice. Previous research has identified the importance of parental involvement and support for children's academic and behavioural performance in school (e.g. Eccles & colleagues 1993a, 1993b, 1994, 2004; Hill & Tyson, 2009; Seidman, Lambert, Allen & Aber, 2003). However, there exists a complex debate among researchers and policy makers as to whether the parent-child relationship is sufficient to orient child adjustment alone or whether it should be considered in the context of the inter-parental relationship (e.g. Cowan & Cowan, 2008). This thesis will explore these issues and seek to elucidate whether the inter-parental relationship is indeed important for understanding family functioning and variation in indices of children's school-based adjustment.

There is a wealth of evidence documenting the importance of positive student-teacher relationships for children's emotional, behavioural and academic functioning in school (e.g. Eccles & Harold, 1993; Hamre & Pianta, 2001; Wentzel, 2002). However, it has been argued that the specific characteristics of this relationship have been largely neglected as a focus for policy and practice (McLaughlin & Clarke, 2010). This thesis will examine the aspects of the student-teacher relationship, as well as additional aspects of the school environment, that are associated with family factors and indices of children's adjustment to school transition.

Finally, this thesis aims to explore the pathways and processes through which family relations, alongside school-based factors, are associated with children's externalising problems during the critical developmental phase of transition from primary to secondary school. This transition is a normative event experienced by all eleven year old children living in the United Kingdom, and most industrialised countries, but is consistently described

among the literature as a challenging period of normative life stress (e.g. Anderson, Jacobs, Schramm & Splittgerber, 2000; Eccles 2004; Roeser & Eccles, 1998) that has been associated with declines in children's socio-emotional and behavioural well-being (e.g. Hirsch & Rapkin, 1987). Despite this, there is a surprising paucity of policies aimed at assisting children during this period. This thesis aims to identify the family and school-based factors that make this transition challenging for children to navigate and highlight effective targets at which policy and intervention can be aimed to reduce children's externalising problems.

The Importance of Studying Externalising Problems

Aggression is a normative and adaptive form of behaviour in developing children and can lead to the manifestation of pro-social interaction skills if it occurs at developmentally appropriate stages and is managed effectively by parents and teachers (Connor, 2002). However, there is evidence to suggest that maladaptive and developmentally inappropriate aggressive behaviour is increasing among children and adolescents (e.g. Collishaw, Maughan, Goodman & Pickles, 2004). Such aggression has been defined as comprising two distinct categories. On the one hand there is overtly aggressive behaviour, which is defined as 'behaviour deliberately aimed at inflicting physical and/or psychological damage on persons or property' (p. 150, van Goozen, Fairchild, Snoek & Harold, 2007). This can include physically attacking others, bullying, cruelty and fighting. On the other hand there are more covert or less physically observable delinquent and antisocial behaviours including lying, stealing, swearing, substance abuse and truancy (Stanger, Achenbach & Verhulst, 1997). Collectively, these behaviours can be referred to as reflecting externalising symptoms

of maladaptive behaviour, and represent a problem of significant social concern (van Goozen et al., 2007).

Externalising problems in school-aged children are a concern because of associations with a range of challenges for children, parents and teachers. For children themselves, various indices of externalising behaviour problems have been associated with peer rejection and social interaction problems (Howes, 2000; Laird, Jordan, Dodge, Pettit & Bates, 2001; Schwartz, McFadyen-Ketchum, Dodge, Pettit & Bates, 1999), poor student-teacher relationships (Hamre & Pianta, 2001; Ladd & Burgess, 1999; Stipek & Miles, 2008), academic underachievement (Caprara, Barbaranelli, Pastorelli, Bandura & Zimbardo, 2000; Hamre & Pianta, 2001; Hinshaw, 1992; Tremblay et al., 1992) and school drop out and exclusion (Kupersmidt & Coie, 1990).

Many studies have also reported that early aggressive and antisocial behaviours are fairly stable across childhood and adolescence and are predictive of long-term maladaptive behaviour (e.g. Ladd & Burgess, 1999; Olweus, 1979; van Goozen et al., 2007). For example, aggressive behaviours in primary school have been linked to delinquent behaviour, contact with the police and arrests, as well as school drop out in secondary school (Collishaw et al., 2004; Kupersmidt & Coie, 1990; Layard & Dunn, 2009; Tremblay et al., 1992). In addition, a negative student-teacher relationship informed by children's aggressive behaviour in primary school has been found to predict poor academic achievement throughout primary (Howes, 2000) and across the transition to secondary school (Hamre & Pianta, 2001).

The negative consequences of early externalising problems appear to persist long into adulthood being associated with increased rates of homelessness, employment termination, dependence on benefits, violent and non-violent crime, substance misuse, and reduced mental health (Collishaw et al., 2004; Fergusson,

Horwood, & Ridder, 2005a, 2005b). As a result, it has been argued that externalising problems that are not tackled during childhood cost society between £24,000 and £70,000 per child (Layard & Dunn, 2009).

Children's externalising problems can exert a disruptive influence on the home and school environment. Aggressive children are more likely to spend time being disciplined by parents and teachers, and be less well-liked by peers than their non-aggressive counterparts (Arnold, 1997; Brendgen, Vitaro, Turgeon & Poulin, 2002; Coie & Dodge, 1988; Stipek & Miles, 2008). Disruptions for family members of aggressive children include a lack of social interaction skills resulting in hostility and aggression directed towards siblings. Such behaviour can cause upset and conflict with siblings, and mean that parents have to spend increased amounts of time disciplining their children (Hutchings, Lane, Owen & Gwyn, 2004). In addition, family members of aggressive children often have emotional or behavioural problems themselves such as depression in mothers (Hutchings, Lane & Kelly, 2005) and heightened externalising problems in siblings (Hutchings, Bywater, Daley & Lane, 2007).

Disruption for teachers and the general school environment, caused by aggressive children, includes bullying behaviour (Shechtman & Ifargan, 2009), which may contribute to them being less well-liked and more often rejected by peers than their non-aggressive counterparts (e.g. Coie & Dodge, 1988; Brendgen et al., 2002). Aggressive behaviour has also been found to increase the likelihood of male classmates developing aggressive behaviour throughout primary school and across the transition to secondary school (Kellam, Ling, Merisca, Brown & Ialongo, 1998). In addition, classmates of aggressive children may receive less positive attention from teachers, and teachers have reported spending more time engaged in disciplining the unruly children than providing attention to the rest of the class on a day-to-day basis (Kellam et al., 1998; Hutchings et al., 2004a; Webster-Stratton, Reid & Hammond,

2001). Regardless of whether such externalising problems meet a threshold for clinical diagnosis, they present one of the greatest challenges to the learning environment within schools (Shechtman & Ifargan, 2009).

The effects of externalising problems in school may provide insight into links between childhood aggressive behaviour and poor functioning in adulthood (Collishaw et al., 2004; Fergusson, et al., 2005a, 2005b). It is possible that poor scholastic functioning plays a key role in linking aggressive behaviour to poor work functioning in adulthood, specifically given the finding that children's intelligence mediates the link between their aggressive behaviour and academic achievement, as well as employment outcomes (Fergusson et al., 2005b). These long-term associations also help to understand why so much research places emphasis on the role of teachers and the school environment in child mental health (e.g. Ford, Hamilton, Meltzer & Goodman, 2007; Hamre & Pianta, 2001; Kellam et al., 1998; Kellam, Rebok, Ialongo & Meyer, 1994). When taken together these findings highlight the disruptive nature of children's externalising problems across two primary social contexts of their life. Specifically, this research illustrates the psychological and economic costs to the individual as well as their family, school and society in general. It does not, however, demonstrate how prevalent externalising problems are among typical school-aged children and, by extension, how well founded the concerns are.

Trends in Child and Adolescent Externalising Problems

Over the past decade there has been a great deal of speculation about the prevalence rates of externalising problems in children and adolescents. For example, Connor (2002) writes about how aggressive behaviours have 'increased in frequency and severity' (p28) in the United States over the last half century. This concern is echoed in the United Kingdom (Hutchings and colleagues, 2004, 2005; Pedace, 2008), and is highlighted by the growing

number of interventions and policies that have been developed during this time to reduce youth conduct problems (e.g. Department for Training and Education, 2005; Hutchings and colleagues, 2004, 2007a, 2007b; Scott, Spender, Doolan, Jacobs & Aspland, 2001). Despite this, some authors have questioned whether these concerns are justifiable or simply an artefact of changes in measurement or classification techniques over the years (e.g. Collishaw et al., 2004).

Recent research indicates that around 10% of school-aged British children have clinically significant psychiatric disorders with around 6% evidencing Conduct Disorder (Goodman, Ford, Simmons, Gatward & Meltzer, 2000; Layard & Dunn, 2009). Conduct disorder includes a variety of maladaptive aggressive behaviours; seven of the 15 criteria for diagnosis describe aspects of physical aggression (Connor, 2002). Many children and adolescents experience behavioural problems that cause significant distress and disruption to themselves and/or others but who do not meet clinical cut-off scores (Shechtman & Ifargan, 2009) and as stated above, around 10% of English, Welsh and Scottish children present significant levels of disruptive behaviour problems in school (Pedace, 2008).

This trend of an increase in behaviour problems since the mid-1970s does not appear to be a methodological artefact. Collishaw and colleagues (2004) analysed data from three large-scale community studies conducted in 1976, 1986 and 1999. While controlling for measurement effects, the authors demonstrated how conduct problems had increased from around 7% to 15% prevalence rates in these cohorts of British children across the two decades. The trends were the same for males and females from all family types and socio-economic backgrounds. Other research has suggested that conduct problems in British children have not worsened since 1999 but nor have they decreased in prevalence (Green, McGinnity, Meltzer, Ford & Goodman, 2005).

Influential Factors on the Development of Childhood Externalising Problems

Collishaw and colleagues (2004) argue “there is an urgent need to identify the underlying reasons for the increase in conduct problems over recent years” (p. 1359). For several decades, scholars and politicians have looked to the family as an agent of primary socialisation in orienting children’s behaviour (Oakley, 1972; Cowan & Cowan, 2008; Rutter et al., 2010). A large literature exists showing that the quality of family relationships has significant implications for the emotional climate of the family (e.g. Erel & Burman, 1995) and for children’s psychological well-being in general (e.g. Grych & Fincham, 1990; van Goozen et al., 2007). One of the more consistent findings is that distress and discord within the inter-parental relationship is associated with an increase in children’s externalising problems (e.g. Buehler, et al., 1998; Dadds, Schwartz & Sanders, 1987; Emery & O’Leary, 1982; Katz & Gottman, 1996; Kazdin, 1987; Reid & Crisafulli, 1990; Rhoades, 2008). The past two decades have generated a wealth of empirical evidence attempting to demonstrate why, when and how children are adversely affected by the quality of the inter-parental relationship. While informative, this work has focused almost exclusively on children’s development in the context of the family, with little to no attention given to the broader social environment in which children live and develop.

This thesis extends previous research by attempting to bridge the gap between the family and school environment to offer a more complete understanding of the development of children's externalising problems in the context of family relations. Instead of viewing the family system and the developing child in isolation, the corpus of work presented here conceptualises the child’s response and adaptation to conflict occurring within the family in relation to their adaptation at a critical point of psychological challenge and normative life transition. It has been suggested that the experience of a life transition is a key time to target primary prevention efforts at reducing problematic behaviours due to the transformations

associated with them (e.g. Cox & Paley, 1997; Felner, Ginter & Primavera, 1982). In addition, the life transition from primary to secondary school has been described as a time when children are more vulnerable to develop behaviour problems due to changes in the home and school climate (e.g. Eccles et al, 1993; Fergusson & Fraser, 1999). This particular school transition has also been highlighted as a time when aggressive and antisocial behaviour reaches a peak and is most persistent amongst children and young adolescents (Pellegrini, 2002; Pellegrini & Bartini, 2000).

This thesis will explore the pathways through which specific facets of family functioning that have been described as being particularly detrimental to children's well-being, namely conflict within the inter-parental relationship, are associated with children's externalising problems during the transition from primary to secondary school. The following sections begin to delineate the direct and indirect processes most relevant to furthering understanding of how, when and why inter-parental conflict in the home can orient children's externalising problems in school.

Theoretical Perspectives Relevant to Understanding Links Between Inter-Parental Conflict and Child Externalising Problems

Several theoretical perspectives have been developed that seek to explain typical and atypical child development. Four primary theoretical perspectives will be considered which have influenced the direction of research investigating why some children present atypical levels of externalising problems in the context of inter-parental conflict. These are the Frustration-Aggression Hypothesis (Dollard, Doob, Miller, Mowrer & Sears, 1939), Social-Learning Theory (Bandura, 1969), Attachment Theory (Bowlby, 1969) and Family Systems Theory (Cox & Paley, 1997). Examples will be provided to demonstrate the way in which

these perspectives have shaped existing exploration of the associations between inter-parental conflict and children's externalising problems.

Frustration-Aggression Hypothesis

Research has suggested that aggressive and hostile acts may be elicited by aversive or frustrating events (van Goozen, 2005). The Frustration-Aggression Hypothesis, developed by Dollard and colleagues (1939), describes the processes through which frustrating events can elicit an aggressive response and is one of the earliest theories that can be used to explain the relationship between inter-parental conflict and child aggression. This theory is derived from a behaviourist perspective (Berkowitz, 1989), which posits that children are born as blank slates, or *tabula rasa*, and learn behaviours based on their experience with the environment (Ormrod, 1999). In other words, the behaviourist perspective suggests that children's behaviour is a direct effect of the social environment they are exposed to, such as the home and school environment, and the social interactions they experience with caregivers, peers and teachers.

Based on the notion of children learning behaviour from their environment, the Frustration-Aggression Hypothesis sought to investigate specific environmental conditions in an attempt to account for all human aggressive behaviour (Berkowitz, 1989). The authors of this perspective (Dollard & colleagues, 1939) investigated social interactions and associations between actions or behaviours, which elicited a frustration, and the reactions such frustration produced. The conclusion they initially drew was that the occurrence of aggression was always assumed to occur in the presence of frustration and that frustration always led to an expression of aggression. However, after much controversy and criticism, Miller, Sears, Mowrer, Doob and Dollard (1941) reformulated this conclusion to suggest frustration leads to several different types of response that can include a form of aggression.

Berkowitz (1989) further refined the theory to highlight the mechanisms through which frustration leads specifically to aggression.

According to Berkowitz (1989), frustration is described as a barrier to the gratification expected of reaching a desired goal, which produces negative affect. Such negative affect then predicts hostile aggression but this response is moderated by factors both internal and external to the individual (Miller et al., 1941). For example, the social justification of the barrier and the extent to which it co-occurs with an aversive hostile stimulus promotes or inhibits an aggressive response. In addition, past experiences with, and anticipation of, reprimands for the aggression, influence the severity of the aggressive reaction (Berkowitz, 1989; Miller et al., 1941).

A child's personal sense of threat is also likely to enhance the level of frustration and by extension, the aggressive response (Maslow, 1941). Threatening frustration that involves deprivation of love, prestige, respect or achievement is likely to have stronger associations with negative behaviours than deprivation of an inanimate desired object or goal. The effects of such frustration have also been described as similar to the effects related to other forms of threat including conflict and rejection (Maslow, 1941). It can be argued that inter-parental conflict that threatens children's sense of love and support is likely to evoke frustration that is strongly associated with aggression. In addition, as conflict is a hostile, aversive stimulus it is likely to amplify the level of hostility and aggression that the child subsequently expresses. This pattern of effects suggests that the response to a form of frustration that is threatening may be a reactive, hostile form of aggression (Dollard et al., 1939; Miller et al., 1941).

Frustration- Aggression theory also describes a displacement effect (Miller et al., 1941) suggesting that the elicited aggression will only be directed towards the person responsible for causing the frustration if it will not result in punishment or some form of social disapproval (Miller et al., 1941; Berkowitz, 1989). As parents may have admonished

children for behaving aggressively in the past, children's aggression may not be directed towards their parents following the argument. Instead, they may engage in an aggressive interaction with their siblings or classmates. Previous research has demonstrated how aggressive children are more likely to be aggressive or bully classmates and siblings (e.g. Hutchings et al., 2004a; Shechtman & Ifargan, 2009), which may be a direct result of their displaced aggression due to their fear of experiencing punishment from parents. This theory provides a provisional explanation for how conflict and hostility within the home environment may inform children's aggressive behaviour across social contexts.

The Frustration-Aggression Hypothesis identified mechanisms through which observed interactions influenced behaviour. However, it has been criticised for overestimating the role of frustration in causing aggression (e.g. Berkowitz, 1989), underestimating the ability of frustration to lead to responses other than aggression (Sears, 1941) and for failing to consider the reinforcing effect of an aggressive outburst effectively alleviating the initial feelings of frustration (Grusec, 1992). As a result, the principles of the theory were further developed to consider alternative explanations of child aggression.

Social Learning Theory

Social Learning theory, developed by Sears (1951) and refined by Bandura (1969, 1977), was also derived from a behaviourist perspective following the notion that children learn behaviours from their environment. Social Learning theory can be used to consider more specific pathways through which children learn behaviours via the role of observational learning, imitation, modelling and an awareness of incentives or rewards relating to behaviour (Grusec, 1992; Robinson & Jacobson, 1987). Social Learning Theory marked a move away from the 'Lockean traditional model of behaviourism' (Robinson & Jacobson, 1987. p.121) that conceptualises the environment as exerting effects on the child behaviour in

a unidirectional fashion, towards the Kantian model, a perspective that employs a bi-directional view of interpersonal behaviour (Robinson & Jacobson, 1987).

Much like the Frustration-Aggression Hypothesis (Dollard et al., 1939; Miller et al., 1941), Social Learning Theory posited that children who were exposed to a hostile or aversive stimulus were likely to demonstrate aggressive behaviour. Unlike the Frustration-Aggression theorists, Social Learning theorists argued that children demonstrated this behaviour through imitation or modelling of the aggressive acts they witnessed and the rewards they believed to be associated with the behaviour, rather than because the act prevented their achievement of a goal *per se*.

A classic example of this relationship can be observed in Bandura's experiment with the Bobo Doll (1965) where children were shown a video of an adult behaving aggressively towards a blow up doll and, when they were allowed to play in the room with the doll, they too behaved aggressively towards it. What was particularly impressive about this study was the fact that it indicated that children's appraisals of the situation were key in determining their response. Children were shown three different conditions of the video: 1) the adult was rewarded with sweets for being aggressive towards the doll; 2) the adult was punished, and 3) the adult received no reaction. Children exhibited significantly fewer aggressive acts towards the Bobo Doll after witnessing the adult being punished than those children who had witnessed the adult being rewarded.

The finding that potential punishments inhibit aggressive behaviour was described in the Frustration-Aggression Hypothesis. However, Bandura (1965) further demonstrated that if children were offered a reward for behaving aggressively after witnessing the adult being punished, they exhibited as many aggressive acts with the Bobo doll as the children who had initially witnessed the adult being rewarded. Bandura concluded that children can learn new

behaviours but they will only imitate such behaviours if they believe they will be rewarded, not punished, for doing so.

The notion that we can learn the outcomes of behaviours vicariously through the experiences of others forms one of the central themes distinguishing Social Learning Theory from the Frustration-Aggression Hypothesis. It highlights how we can learn not only our behaviours from others, but also that the appraisals we make about the meanings and the consequences of such behaviours, influence the way we behave.

Among research employing a social learning theory approach to explore parent-child relations, several parenting behaviours are consistently described as eliciting or exacerbating challenging child behaviours. These include excessive monitoring, over-controlling coercive rules and harsh and inconsistent discipline practices (e.g. Dishion, Patterson, Stoolmiller & Skinner, 1991; Hutchings et al., 2004a; Webster-Stratton et al., 2001). However, it has been suggested that negative parenting practices and challenging child behaviour form a reciprocal relationship rather than one solely exerting effects on the other. For example, a parent with mental ill health is more likely to employ negative parenting practices, which will be both elicited by, and cause further, aggressive behaviour in children. This is because depressed parents are often more sensitive to children's acting out behaviours and negative parenting practices such as harsh inconsistent discipline reinforce such behaviours rather than reducing them (Conger, Patterson & Ge, 1995; Hutchings et al., 2004a; Patterson, 1982; Webster-Stratton and colleagues, 1994, 1998, 2001). The more children act up the more their parents employ excessively harsh discipline practices, modelling hostile behaviour, and the more the child exhibits aggressive behaviour (e.g. Conger et al., 1995; Snyder, 1991). It is further suggested that distressed couples engaged in hostile conflict may be more likely to be involved in negative patterns of inter-parental *and* parent-child interaction, modelling hostility and aggression for their children.

Social Learning Theory (Bandura, 1965, 1969) has had a profound influence on the way psychologists study social interactions, and also the development of intervention programs that seek to break the cycle of negative coercive practices between parents and children (e.g. Patterson, 2002; Webster-Stratton, 1994). However, this thesis is not concerned with studying relationships between parents and between parents and children in isolation. Rather, the focus of the chapters that follow is with identifying links between the inter-parental relationship, the parent-child relationship and implications for children's externalising problems. While recognising that children may imitate their parents' behaviour and respond to negative reinforcement is important, it is likely that other factors including children's emotional attachment and experience of parental attentiveness, may offer further insight into the relationship between inter-parental conflict and children's externalising problems.

Attachment Theory

One of the most consistently described perspectives of infant attachment to their caregivers is Bowlby's (1969) ethological theory, which moved away from the restricted investigation of behavioural contingencies (as studied in Social Learning and Frustration-Aggression theories), to document a range of behaviours across an entire species. Bowlby (1969) suggested that children's early experiences with caregivers shaped their 'internal working models' of relationships, which moderated their social functioning and interactions with others (Rutter, Kreppner & Sonuga-Barke, 2009).

Attachment theory was most notably tested by Mary Ainsworth and her colleagues (1978), who developed the strange situation paradigm to measure attachment behaviour in response to children's separation from their parents. This procedure led to the classification of forms of secure and insecure attachment behaviours and the conclusion that maternal

sensitivity, following separation, was highly informative of the type of attachment children developed.

The strange situation procedure is considered the gold standard measure of children's secure attachments (Rutter et al., 2009). However, it has been criticised for i) testing a snapshot reaction to separation rather than a personality trait and ii) applying exclusively to infants who are dependent on parents and therefore typically distressed by their absence (Rutter et al., 2009). As such, it cannot test the continuity of attachment behaviours across child development, despite the argument that attachment behaviours are not determined solely by experiences in the early years but they are a 'dynamic, transactional process' (p. 537, Rutter et al., 2009).

It is likely that internal working models of relationships will change in line with normative child development. During adolescence, for example, it has been suggested that children experience a shift in the representations of their environment to allow them to form more abstract views of relationships and differentiate between mother-child, father-child and teacher-child relationships (Allen & Land, 1999). In addition, a key aspect of development for adolescents is gaining social, emotional and cognitive autonomy from parents (Eccles et al., 1993; Holmbeck, 1996), which competes with the desire to be securely attached expressed by infants (Ainsworth et al., 1978; Allen & Land, 1999).

The balance between gaining autonomy and maintaining a positive relationship with parents that adolescents seek, has been described as individuation (Kruse & Walper, 2008). The four degrees of individuation in adolescence (secure, dependent-ambivalent, avoidant and detached autonomous) can be directly mapped on to the types of attachment behaviour characterised in infancy (secure, insecure-ambivalent, insecure- avoidant and disorganised/disoriented) (Kruse & Walper, 2008). It has also been suggested that the development of each form of individuation is driven by the quality of family relations with

greater proportions of adolescents experiencing insecure ambivalent individuation to parents when exposed to high levels of inter-parental conflict (Kruse & Walper, 2008).

In line with Rutter and colleagues' (2009) argument, the shift from attachment to individuation is likely to be dynamic and informed by relationships developed in the early years (Allen & Land, 1999). Children who develop secure attachment in the early years may from secure individuation and focus on problem solving to reduce conflict with parents about autonomy during the transition to adolescence. In addition, positive parent-adolescent relationships and secure attachment have been associated with increased academic motivation and perceived support in other social domains, such as the classroom (Duchesne & Larose, 2007). Conversely, insecure children may avoid or dismiss parents in response to conflict over autonomy, which may elicit a coercive process, similar to that delineated by social learning theorists (Patterson, 1982). The more dismissive and detached adolescents become, the more hostile and over-controlling parents may become, undermining adolescent's initial desire to gain autonomy and leading to increased avoidance as well as externalising problems such as conduct disorder, substance abuse (Allen & Land, 1999) and deviant behaviours (Allen et al., 1998).

Research suggests that stronger associations exist between attachment and indices of adjustment including social competence, self-esteem, identity and emotional adjustment for high school students (early adolescence) than in late adolescence. Rice (1990) also concluded that stronger associations may be evident prior to important transitions, such as transitions between schools, when young adolescents may be most in need of parental support and most reluctant to ask for it. In support of this, parental insensitivity related to the developmental needs of the adolescent, including emotional unavailability or excessive control, prior to the transition to secondary school, has been linked with declines in adolescents' self-esteem, scholastic achievement and attendance in secondary school (e.g. Dubois, Eitel & Felner,

1994; Lord, Eccles & McCarthy, 1994; Seidman et al., 2003). Although these studies did not directly measure attachment or internal working models, results suggest that an insecure parent-adolescent relationship characterised by the coercive behaviour described above (Allen & Land, 1999) may be particularly pertinent to adolescents making this transition.

When taken together, these findings provide support for Rutter and colleagues' (2009) supposition that attachment is important for adjustment across the life span and that while it may be partly informed by early experiences it is also likely to be shaped by important developmental transitions. Research in this area has led to a better understanding of the importance of social relationships in development (Rutter et al., 2009), and the need to consider developmentally appropriate forms of attachment to understand variation in adjustment. However, the majority of empirical work emanating from an attachment perspective often fails to consider the interdependence of the inter-parental relationship with the parent-child relationship and child adjustment. In order to understand child adjustment it is important to understand processes within the family as a whole rather than as a series of disconnected dyadic relationships (Emery, Fincham & Cummings, 1992).

Family Systems Theory

During the late 1970s and early 1980s, research began to consider how the family operates in its entirety and how the inter-parental relationship informs other dyadic and triadic interactions within the family. This marked a move away from an exclusive focus on parenting effects on children, toward a reflection of the more complex nature of family life. Theorists have described the family as a multifaceted set of subsystems that is itself part of a larger system involving the extended family, neighbourhood and the community (Bronfenbrenner, 1977; Cox & Paley, 1997).

Family systems theory suggests that family subsystems possess a hierarchical structure with the inter-parental relationship described as the 'architect' of all family

relationships (Minuchin, 1988), that affects the quality of all other dyadic relationships (Harold, Pryor & Reynolds, 2001). Family Systems Theory centres on the notion of reciprocity between subsystems and posits that patterns of behaviour seen in one dyad are often a product of actions and reactions occurring in another. For example, conflict between parents may have a direct effect on child behaviour but children's aggressive behaviour may also cause increased tension and conflict between parents (Cui, Donnellan & Conger, 2007; Jenkins, Simpson, Dunn, Rashbash & O'Connor, 2005; Schermerhorn, Cummings, Decarlo & Davies, 2007). Equally, inter-parental conflict may result in reduced parenting quality while a difficult parent-child relationship, or one in which a mother is overly focused on the child, may result in declines in the quality of the inter-parental relationship (e.g. Belsky, 1981, 1984; Erel & Burman, 1995; Krishnakumar & colleagues, 2000, 2003).

Transactional relations between subsystems are perhaps most effectively observed when families are experiencing important transitions such as the birth of a child or school transitions (Cox & Paley, 1997). The family has been described as having 'adaptive self-organisation' (p.251, Cox & Paley, 1997) such that, in response to the transition from primary to secondary school, individuals, and the family unit as a whole, will undergo processes of reorganisation to adapt to the challenges presented by the transition. When the child is experiencing the move, morphogenesis occurs which marks a permanent change in family functioning and interactions. This period of transition is often accompanied by changes in children's behaviour and desires for autonomy from parents (e.g. Allen & Land, 1999; Eccles et al., 1993; Lord, Eccles & McCarthy, 1994), increased conflict in the parent-child relationship (e.g. Eccles et al., 1993) and the inter-parental relationship (Harold, Pryor & Reynolds, 2001).

In order to regain positive relationships, subsystems must undergo a process of morphostasis where new patterns of behaviour emerge to adapt to the change in

circumstances and demands of each individual. If morphostasis is effectively managed then it will lead to bifurcation whereby family structure is reorganised and relationships are renewed. While this will lead to an effective adaptation to the challenge of school transition, the family relations are likely to be more complex than they were prior to the transition and may become less stable and more vulnerable to future challenges (Cox & Paley, 1997). In addition, successful bifurcation will be largely dependent on parental sensitivity to adolescents changing needs. Those parents who are not attuned with their adolescents' emotional needs and desires for autonomy will experience higher levels of parent-child conflict and adolescents may experience greater difficulty adjusting to the transition (e.g. Eccles et al., 1993; Lord, et al., 1994). This example clearly demonstrates the interconnectedness of family subsystems, as school transition is an event that primarily alters the life of the child but also has the capacity to influence the parent-child and inter-parental dyads.

The notion of adaptive self-organisation illustrates the importance of looking at key developmental transitions that individual family members undergo to further understanding of 'adult adaptation, child development and family functioning' (p. 252, Cox & Paley, 1997). It also illustrates how family subsystems can interact with external forces and in order to more completely understand the nature of family reorganisation and child adjustment, it is necessary to consider characteristics of influential social domains such as school or the work place.

Research has investigated the extent to which extra familial institutions or events operate to exert effects on children's well-being. For example, work or income related stress as well as low social economic status and living in a deprived neighbourhood have been associated with reduced family functioning, children's mental health difficulties and school-based disorder (e.g. Barnes et al., 2006; Conger, Ge, Elder, Lorenz & Simons, 1994; Conger,

Rueter & Conger, 2000; Ford, Goodman & Meltzer, 2003). Similarly, disruptions within the school environment including transitions or children's misbehaviour have been linked to increased levels of perceived family stress and conflict (e.g. Eccles et al., 1993; Flook & Fulgini, 2008; Holmbeck, 1996). While this research provides a clear link between extraneous forces and children's adjustment, such circumstances do not appear to exert direct effects on the child. Instead, stressors such as economic strain, neighbourhood environment and school transitions are linked to children's psychological well-being via declines in the quality of inter-parental relationships and parenting practices (e.g. Conger et al., 1994; Ford, et al., 2004; Lord et al., 1994; Pettit, Bates & Dodge 1997; Seidman et al., 2003), further illustrating the interconnectedness of family subsystems.

Each of the theories outlined above have had a profound influence on the ways in which scholars and clinicians have viewed family interactions in orienting children's externalising behaviour. For example, the Frustration-Aggression Hypothesis (Dollard et al., 1939; Miller et al., 1941) initially offered exciting new methods of thinking about specific behaviours that may predict aggressive outbursts. This theory also offered insight into the way in which aggression may generalise across multiple social contexts providing a basic understanding of the transmission of externalising problems from the home to the school environment.

Social Learning Theory highlighted the role of imitation and behavioural modelling which provides a framework for understanding how hostile inter-parental conflict may lead to children imitating hostile aggression. Furthermore, Social Learning Theory in both the operant coercive form (Patterson, 1982) and the Kantian behaviourist form (Bandura, 1969; Robinson & Jacobson, 1987) began to highlight the role of reciprocity within relationships. It also illustrated the importance of people's awareness or cognitions relating to events and behaviours and the rewards or punishments they carried. This theory offered a great deal to

the understanding of behaviours and family interactions and is still widely used among many forms of therapy and community based interventions (e.g. Schechtman & Ifargan, 2009; Stuart, 1989; Webster-Stratton, 1994).

Attachment theory (Bowlby, 1969) took a step away from studying specific behaviours and highlighted the ethological method of reviewing a range of behaviours across a species in order to understand typical and atypical development. It highlighted the role of the parent-child relationship and furthered the understanding of the effect of reciprocity in determining children's adjustment. Recent research on attachment theory has drawn attention to the fact that early years' experiences may not be the sole determinants of attachment and adjustment behaviours (Rutter et al., 2009). Attachment theory has also informed the investigation of the role of conflict and hostility within the inter-parental relationship on children's emotionally insecure representations of relationships (e.g. Davies & Cummings, 1994) and insecure attachment behaviours (Owen & Cox, 1997).

Finally, Family Systems theory (Cox & Paley, 1997) provided a holistic model that focused on the interdependence and reciprocity between the child, the parent-child dyad and the inter-parental dyad. This theory posited that the family follows a hierarchical structure with inter-parental relations at its heart (Harold et al., 2001). It has also suggested that the family needs to be studied as a whole rather than looking at individual relationships to further understanding of child adjustment (Cowan & Cowan, 2008), particularly in response to periods of transition.

The principles of these theories have been applied to a vast body of theoretical and empirical family-based research, which will be discussed throughout this thesis. Aspects of all four theories orient the direction of research that is conducted but Social Learning Theory (Bandura, 1965, 1969) and Family Systems Theory (Cox & Paley, 1997) are perhaps the most influential for the body of work that will be presented. The notion that family

subsystems are interconnected with each other and social domains such as the school, as well as being oriented by the inter-parental relationship is a key feature of academic and political debate (Cowan & Cowan, 2008). The remainder of this chapter will explore this notion by discussing research that has embodied a family systems theory approach to considering children's behaviour in the context of family relations. This will be followed by a delineation of the theoretical and empirical research that has considered the role of the active child in terms of the importance of children's internal working models of social interactions to inform their behaviour, across subsequent chapters.

Family Factors and Children's Externalising Problems

A principal theme of this thesis is that in order to understand variation in children's externalising problems, it is necessary to consider aspects of family functioning including, the emotional climate within and between family subsystems. In the context of family systems theory (Cox & Paley, 1997), a great deal of research has investigated links between characteristics of family functioning and indices of children's adjustment, including externalising problems. The characteristics frequently identified within this research will now be reviewed.

Divorce

In line with the identified increase in child conduct disordered behaviour from the mid- seventies, official statistics illustrated a sharp rise in divorce rates, single parenthood and step-families in the UK between 1971 and 2003, (ONS, 2006). As a result of these trends in family type, scholars began to look towards the role of the family structure and the experience of marital transitions in explaining trends in children's adjustment. The strongest associations emerged for externalising problems (Collishaw, 2009).

In two seminal reviews of studies conducted between the 1950's and 1980's, Amato and Keith (1991a, 1991b) demonstrated that children and adults who had experienced their parents' divorce evidenced poorer mental health across a range of outcomes than their counterparts who had remained in continuously married families. Children displayed declines in academic achievement, psychological adjustment, behavioural conduct, self-concept and social relations (Amato & Keith, 1991a). For adults, parental divorce occurring in childhood was associated with declines in life satisfaction, marital quality, educational attainment, income, occupational prestige and physical health as well as increased rates of divorce and depression (Amato & Keith, 1991b). Amato (2001) repeated the meta-analysis a decade later and found the same results for children of divorce, highlighting how they again exhibited lower scores on academic achievement, psychological adjustment, behavioural conduct, self-concept and social relations. He also demonstrated how overall effect sizes for most outcomes were generally stronger, or at least comparable, in the 1990's compared to the 1980's. This finding was of particular importance given the improvements in measurement and methodology during this period and seemed to suggest that the experience of divorce had a direct effect on children's psychological maladjustment. Despite this, Amato (2001) commented on the fact that effect sizes were relatively weak and additional research has demonstrated how the behavioural problems associated with divorce are often present years before the divorce and persist for around two years after it (Hetherington, 1989; Hetherington, Bridges & Insabella, 1998; Kelly, 2000). These conclusions led researchers to begin to investigate the role of family climate in explaining variation in children's adjustment.

Much research has validated this change in direction by demonstrating that it is the level of inter-parental conflict that exists before, during and after divorce that explains variations in children's levels of psychological adjustment (e.g. Cherlin et al., 1991; Amato,

1993; Harold & Murch, 2004; Hetherington, et al., 1989, 1998; Kelly, 2000; Wadsworth & Compas, 2002). This pattern of effects is not limited to children of divorce, however, and many scholars have investigated the role of inter-parental conflict in explaining externalising problems of children living in continuously intact families and found equivalent levels of adjustment problems (e.g. Franck & Buehler, 2007; Jouriles, Murphy & O'Leary, 1989; Peterson & Zill, 1986). Furthermore, Hetherington and Stanley-Hagan (1999) determined that children living in continuously intact families characterised by high levels of inter-parental conflict evidenced the same levels of adjustment problems, specifically externalising problems, as children from divorced families.

Almost a decade later, similar findings have been reported with young adults from high conflict families evidencing the same levels of poor school grades, smoking, marijuana use and problems in sustaining romantic relationships as young adults who experienced a divorce or lived in a single mother headed household during adolescence (Musick & Meier, 2010). Young adults from high conflict families were also a third more likely to binge drink than young adults who had experienced a divorce (Musick & Meier, 2010). Moreover, a greater proportion of adolescents demonstrated negative or insecure types of individuation to parents from high conflict, intact, families than from step-families (Kruse & Walper, 2008), indicating the role of inter-parental conflict on indices of child and adolescent psychological adjustment as well as the quality of parent-child relations.

In support of the conclusion that divorce is not a unique predictor of children's increased externalising problems, Collishaw and colleagues (2004) found that conduct disordered problems have increased for children of all family types over the past 20 years. Similarly, Cherlin and colleagues (1991) found that controlling for pre-divorce behavioural problems yielded a non-significant effect of divorce on post-dissolution behaviour. When taken together, these results suggest that it is the family climate, and specifically levels of

inter-parental conflict, that may explain variation in children's aggressive behaviour over and above their family type.

An important point to note here is that as studies have progressed over the years, terminology referring to aspects of family functioning has moved from referring to marital conflict and marital distress to inter-parental conflict and inter-parental distress. This change is likely to reflect diversity in family types where parents reside together rather than a change in measurement per se. For instance, in the UK there has been a decline in the marriage rate and an increase in rates of cohabitation in the last thirty years (i.e. 1971 and 2003; ONS, 2006). For the remainder of this thesis conflict between parents shall be referred to as inter-parental conflict.

Inter-parental Conflict and Trends in the Study of Links between Inter-Parental Conflict and Externalising Problems

Studies of the links between the quality of the inter-parental relationship and children's psychological well-being can be traced to at least the 1930s (e.g. Towle, 1931; Hubbard & Adams, 1936). These early studies were grounded in a psychodynamic perspective and focused on how parents' own family backgrounds shaped their ability to employ effective parenting strategies. Since then, research has evolved to consider aspects of the current family climate in which a child resides to understand variation in psychological adjustment. For example, in what was referred to as 'first generation' research (Fincham, 1994, p.123), a volume of work conducted in the 1970s and 1980s examined the association between marital conflict and child adjustment problems. While significant links were found between inter-parental conflict and child adjustment, effect sizes ranged from $r = .20-.43$ (Fincham, 1994; Grych & Fincham, 1990), depending on the sample and raters employed in each study. Many of the earlier studies relied on clinic populations and a single clinician as

the rater of both the family environment and of child adjustment (Emery, 1982). This often led to larger, but misleading, effect sizes due to the clinicians' reliance on observations of snap shots of both parent and child behaviour. Similarly, parents as the sole reporters of marital conflict and child adjustment yield higher correlations (e.g. $r = .30$ to $.63$) than parents reporting on child behaviour and children reporting on marital conflict (e.g. $r = .22$; Grych & Fincham, 1990) demonstrating effects of single rater attribution bias (e.g. Crick & Dodge, 1994; Harold & Conger, 1997; Watson & Pennebaker, 1989).

To improve methodological rigor and obtain more consistent patterns of effects, there was a move to study family life in community or population-based samples in the early 1990's (e.g. David, Steele, Forehand & Armistead, 1996; Grych, Seid & Fincham, 1992). More recent studies have worked with large scale community samples and multiple raters of inter-parental and child functioning (e.g. Harold et al., 2003; 2007). Such studies are more ecologically valid and, although effect sizes tend to be higher with clinic than community samples, they often show the same pattern of effects; that inter-parental conflict is negatively associated with child adjustment (Amato, 2001; Grych & Fincham, 1990; Robinson & Jacobson, 1987).

An additional difference across time is that contemporary studies often follow children over longer periods of time than previous work, which typically employed a cross-sectional design. It is impossible to infer temporal causality from cross-sectional work (Harold & Conger, 1997) and to determine whether inter-parental conflict exerts a causal influence or whether it is a product of a reciprocal relationship between hostile parents and an aggressive child. Prospective, longitudinal research allows greater confidence that results actually are unfolding in the 'hypothesised temporal order' (p. 335 Harold & Conger, 1997) of inter-parental conflict preceding child adjustment.

Finally, the method of measurement has changed and advanced from simple interview format within clinics (e.g. Emery, 1982) to large scale checklist style questionnaires that can be sent by post, making them less intrusive and more accessible for the participant to complete (Cummings & Davies, 2002). Alternative home measurements such as daily diary records of marital conflict and child adjustment, which can be written or dictated, are accessible to a broad sample of adults and have been found to be highly reliable at discerning the properties of conflict that are associated with child adjustment problems (Cummings & Davies, 2002). Within the laboratory, analogue methods using visual or audio clips of inter-parental conflict have been employed to discern the specific properties of conflict behaviour that evoke emotional and behavioural problems among children (Goeke-Morey, Cummings, Harold & Shelton, 2003). These methods are more reliable as they minimise interpretation effects by showing the same interaction to all children whereas interactions within the home are likely to vary across households. These methods can also be very precise in terms of the behaviours they test and the parent-child relationship they describe (Cummings & Davies, 2002). However, they are likely to be less ecologically valid than measures assessing children's interpretations of conflict they are exposed to within the home as they illustrate a generic form of conflict, which cannot encompass all facets of individual episodes of conflict occurring between children's parents.

Despite improved methodological rigor, the majority of contemporary research in this area yields relatively small to moderate effect sizes according to Cohen's (1988) classification. For example, Buehler and colleagues (1997) reported an average effect size of $r = .32$ for the association between inter-parental conflict and youth problem behaviours. Similarly, Rhoades (2008) reported effect sizes of .14 to .19 between children's behavioural response to conflict and their externalising problems and overall adjustment, respectively. Many studies that have found a direct effect between inter-parental conflict and child

externalising behaviour, reported that inter-parental conflict explained a small proportion of variance in child adjustment (Fincham & Osborne, 1993; Reid & Crissafulli, 1990). As a result, the conclusion may be drawn that family factors other than the presence of conflict are important for understanding child and adolescent externalising problems.

In the past twenty years, research has moved away from documenting simple bivariate relationships between inter-parental conflict and child adjustment to consider the processes that explain why this association exists. This has been termed a second generation of research (Fincham, 1994). Parenting has been theorised to serve as a key mediating factor in understanding the effects of life stress on child adjustment. For example, negative aspects of family functioning, including inter-parental conflict, are theorised to exert effects on children by negatively impacting upon parenting quality (Faubert & Long, 1991) as will now be considered.

Parent-Child Relationships

Parent-child relationships have been described as ‘a central variable in the aetiology of children’s anti-social behaviour’ (Patterson, DeBaryshe & Ramsey, 1993, p.267). Considerable evidence links negative parenting practices characterised by harshness, punitiveness, excessive control or monitoring and hostility or conflict with a range of indices of children and adolescents’ maladjustment (Belsky, Pasco Fearon & Bell, 2007). These indices include elevated conduct problems, heightened aggression trajectories, low school achievement, poor peer relations and high levels of antisocial behaviour (e.g. Benson et al., 2008; Buehler et al., 2006; Conger et al., 1995; Henry, 1994; Ge, Best, Conger & Simons, 1996; Joussement et al., 2008). Conversely, nurturing and involved parenting has been found to be negatively associated with children’s and adolescents’ externalising problems and to buffer children from the effects of cumulative environmental risk factors, such as inter-

parental conflict, parents' depressed mood, parental drug use, family status and neighbourhood environment (Conger et al., 1992; Trentacosta et al., 2008).

When taken together this research suggests that the parent-child relationship plays an important role in orienting children's and adolescents' behaviour. As described by the family systems perspective (Cox & Paley, 1997), however, this relationship cannot be explored in isolation as the inter-parental relationship shapes the climate of all other family subsystems including the parent-child relationship. For example, conflict and distress within the inter-parental relationship have been shown to inform the quality of parenting behaviours (e.g. Cox & Paley, 1997), reinforcing the importance of considering inter-parental conflict as a key source of stress within the family environment.

Inter-parental Relationships and Parenting Practices

Erel and Burman (1995) described how conflict, hostility and negative affect can spill-over from the parental dyad to negatively impact the quality of the parent-child dyad and child adjustment. The authors suggested that positive parent-child relationships were difficult to attain in the presence of inter-parental conflict, as negative emotions generated between parents do not simply dissipate following the conflictual episode. Instead, negative emotions may be vented towards another individual or expressed in actions carried out in the parent-child dyad. Erel and Burman (1995) discussed four mechanisms, derived from the tenets of family systems and social learning or socialisation theory, through which the spill-over effect may occur.

The first mechanism is labelled 'scapegoating'. It is suggested that when spouses become enmeshed in their arguments they may direct their aggression towards their child as a way of reducing the conflict with each other. The second mechanism is 'behaviour modelling', a term grounded in social learning theory principles. This mechanism links

hostility and deleterious conflict strategies in the inter-parental relationship to declines in the quality of parent-child dyad via the modelling of aggressive behaviour. This spill-over effect may occur via parent's inadvertently demonstrating aggressive ways to behave and then reinforcing such behaviours by inconsistently disciplining children who engage in them (e.g. Baumrind, 1996; Patterson, 1982). Similar to behaviour modelling, the third mechanism, 'socialisation', suggests that there is a direct spill over of negative emotions between dyads such that parents are frustrated by their argument and allow their frustration and distress to reduce the quality of the parenting practices they employ. Ineffective discipline practices may, in turn, evoke children's externalising problems (e.g. Buehler and colleagues, 2003, 2006, 2008). The final mechanism, 'reciprocity', reflects a family systems perspective and describes how distress within any subsystem can cause a strain on the general family climate and negatively influence the relationships among *all* subsystems. Each of these forms of interpersonal exchange within the family offers a potential pathway through which discord in the inter-parental relationship may spill over to impair the emotional climate of the parent-child relationship and ultimately influence children's behaviour.

An alternative perspective is known as the 'Compensatory Hypothesis' (Engfer, 1988) which posits that rather than emotion 'spilling over' from one dyad to another, boundaries between dyads become blurred so that a parent may rely on the support of a child to compensate for the lack of support within the inter-parental relationship (Cox & Paley, 1997; Davies & Cummings, 1994). Although this theory posits that children may initially receive increased attention and affection from their parents, the behaviours are inconsistent as they are tied to the changing quality of the inter-parental relationship. For example, a child may find himself or herself receiving increased affection during inter-parental conflict, which is gradually withdrawn and may even be replaced with rejection or inconsistent discipline following the resolution of the conflict. Research has demonstrated that such inconsistency

and unexplained parenting behaviour is then likely to be associated with increased behavioural difficulties (e.g. Baumrind, 1996; Benson, et al., 2008; Buehler, et al., 2006; Farrington, 1995). Both the spill-over and the compensatory hypotheses highlight the interconnectedness of family subsystems and demonstrate how distress within the inter-parental relationship is likely to deleteriously affect children's behaviour via a negative impact on parenting practices.

However, in the context of inter-parental conflict, it appears that parents are more likely to be affected by a spill-over of negative emotions compromising their parenting quality. For example, Krishnakumar and Buehler (2000) demonstrated how conflict and hostility within the inter-parental dyad was most commonly associated with harsh discipline and low levels of acceptance in the parent-child dyad. They furthered their investigation to assess the extent to which this spill-over of negative emotions between dyads was associated with child adjustment problems (Krishnakumar, Buehler & Barber, 2003). Their results indicated that inter-parental conflict maintained a direct effect on children's externalising problems but also exerted an indirect effect, operating via increased parent-child conflict and reduced parental monitoring and acceptance. In a series of subsequent studies, Buehler and her colleagues (2002, 2006, 2008) found that parental harshness, rejection and harsh discipline were consistently found to mediate the relationship between parental arguments and children's increased externalising problems.

Since the mid 1990's, empirical evidence has accumulated to support the notion that different expressions of hostility and discord within the inter-parental relationship affect children's behavioural adjustment via negative parenting practices (e.g. Dogan, Conger, Kim & Masyn, 2007; Osborne & Fincham, 1996; Sturge-Apple, Davies & Cummings, 2006). However, there are several reasons why it would be erroneous to conclude that it is solely 'at

the site of parenting practices that conflict has its effect on children' (Fauber & Long, 1991, p.816).

First, as highlighted by Emery, Fincham and Cummings' (1992) response to Fauber and Long's (1991) paper, and in the studies described above, when the direct effect of conflict is assessed alongside parenting practices, many studies find that parenting behaviour only partially mediates the relationship between conflict and child adjustment (e.g. Buehler et al., 2006, 2008). This finding is echoed by parent intervention studies that have found that children's behavioural gains were not maintained after the intervention if they came from homes with an absent or unsupportive male figure or family environments marked by high levels of couple and family conflict (Webster-Stratton, 1994; Webster-Stratton et al., 2001). Nevertheless, parenting does appear to be important for understanding children's externalising problems and when considered as a mediating mechanism in the relationship between inter-parental conflict and child externalising problems, parenting practices do seem to be the 'most proximal, immediate and accessible [risk factor]' for child maladjustment (p.913, Fauber & Long, 1992). Furthermore, parenting may well be the most accessible factor to be targeted by therapy and interventions, as suggested by Fauber and Long (1992), when trying to improve child well-being. Such findings may also partly explain why UK policy puts so much emphasis on strengthening parent-child relationships and implementing parenting programs (e.g. Cowan & Cowan, 2008; Rutter et al., 2010).

However, the evidence discussed so far highlights the fact that inter-parental conflict maintains a direct effect on child adjustment when assessed alongside negative parenting practices. In addition, neither construct provides a complete account of why, when and how, inter-parental conflict is associated with children's psychological well-being generally, and their externalising problems, specifically. To address this, Chapter 2 examines evidence for other possible mechanisms that may explain the link between inter-parental conflict and

children's externalising problems. The focus of this second chapter is to consider theoretical and empirical work that explores some of the key principles of social learning theory (Bandura, 1965, 1969) such as the role of children's social cognitions and internal working models of family interactions in their manifestation of aggressive and antisocial behaviour.

Summary

Research investigating the development of child externalising problems and the role of family relations in children's atypical development has evolved to highlight a much more complex interplay of processes than initially investigated during the 1930s (e.g. Dollard et al., 1939; Towle, 1931). This chapter has provided a historical overview of key theories that have oriented the exploration and understanding of relationships between dysfunctional family relations and children's externalising problems. The role of the family environment and specifically the climate of inter-parental relations remain fruitful areas to begin to understand how and why some children develop externalising problems.

This chapter has highlighted how, despite some limitations, family systems theory, offers a useful perspective for understanding children's responses and adjustment to negative family functioning, including inter-parental conflict. This chapter has also demonstrated the importance of adopting a holistic approach to understanding family life and child well-being. While it is recognised that children may influence the family environment, this thesis is primarily concerned with understanding the effects of a home environment marked by inter-parental conflict and hostile rejecting parent-child relationships on children's development.

A final point to note is that this chapter has illustrated that there is a wealth of theoretical and empirical evidence identifying an association between inter-parental conflict and psychological maladjustment. The research presented in this thesis focuses on a specific index of psychological maladjustment (externalising problems)

rather than the general concept for several reasons. Conceptually, the literature most consistently identifies direct links between distress and discord within the inter-parental relationship and children's externalising problems (e.g. Buehler, et al., 1998; Dadds, Schwartz & Sanders, 1987; Reid & Crisafulli, 1990; Rhoades, 2008). In addition, externalising problems in young people represent an area of acute political and public concern due to the cost that they cause across multiple social domains. As described in this chapter, externalising problems present the greatest challenge to the learning environment for teachers, pupils and the individuals presenting the symptoms (Sheckman & Ifargan, 2009). It is recognised that both internalising symptoms and externalising problems can have costly and long lasting effects on the individual. However, externalising problems are the most observable presentation of children's distress within the school environment and are more likely, than internalising symptoms, to result in a school-based referral to services, expulsion, and/or interest in the application of interventions. As such, they represent a clear target for policies aimed at reducing societal costs and improving the chances of children's life success.

Accordingly, this thesis focuses exclusively on externalising problems as it was partly funded by the Welsh Assembly Government (RES-000-22-1041) during a time of increased political interest in rising externalising problems in secondary schools. Furthermore, as described in this chapter, both Welsh and National government strategies aimed at improving family functioning, identify inter-adult hostility and negative parenting practices as contributing, specifically, to disruptive behaviour in young people. Reflecting these concerns, the grants associated with the data analysed in the following chapters identified the objectives of 1) 'assessing the direct and indirect effects of marital conflict on children's concurrent and long term externalising problems including aggression, hostility, antisocial behaviour and

classroom behaviour', (p.5 Welsh Family Study grant) and 2) 'Highlighting factors within the family and within the child that positively and negatively affect children's transition from primary to secondary school' (p. 2 School Transition grant). Thus, the decision to focus on externalising problems alone was guided by both conceptual reasons identified within the literature as well as practical concerns identified within funding remits. It was therefore, considered that a comprehensive exploration of links between the home environment and school-based behaviour, that was readily observable to teachers, rather than internalising symptoms that children themselves are the most accurate reporters of (Achenbach & Rescorla, 2001), would more thoroughly answer the research questions identified within the grants.

The remainder of this thesis is concerned with advancing understanding of the pathways and processes through which inter-parental conflict and hostility are associated with school-based externalising problems. It will progress to investigate the within-child and within-school factors that are potentially vital for understanding variation in children's experiences of, and reactions to, their home environments during a key school-based developmental transition.

Thesis overview

Chapter 2

The central themes of this thesis are to investigate the role of children's perceptions of family relationships in determining their externalising problems and whether boys and girls differ in a) the meanings they assign to their parents' conflict and b) the impact these meanings have for their well-being. This chapter reviews key theories that have oriented the direction of research considering the role of children's awareness of family relations in the association between inter-parental conflict and their externalising problems. This is followed by a discussion of findings of research that has investigated the role of children's social

cognitions in the relationship between conflictual interactions and behavioural outcomes.

This chapter reviews the importance of considering both parent and child gender as well as the specific developmental contexts children are experiencing to further understanding of these associations. This review leads to contemplation of the conceptual questions that the thesis seeks to address.

Chapter 3

Using a sample of 450 young adolescents and their teachers, this study examines the relationship between inter-parental conflict, adolescent appraisals of family processes and adolescent adjustment. The focus of this empirical chapter is to explore the impact of, and pathways through which, inter-parental conflict that co-occurs with the school transition is associated with later school-based externalising problems, and whether these relationships vary as a function of adolescent gender. This study extends previous research in several key ways: 1) it uses a longitudinal design that controls for children's earlier psychological problems; 2) it assesses the mediating properties of the children's social cognitions pertaining to parent-child relationships alongside their awareness of the meaning of inter-parental conflict for them and 3) it explores the roles of parent and child gender for orienting the way in which inter-parental conflict is associated with boys' and girls' externalising problems following the transition to secondary school.

Chapter 4

Using a sample of 82 children who were preparing to transition to secondary school, and their teachers, this chapter re-visits the theoretical model proposed and tested in Chapter 3. The main aims of this chapter are to: a) assess whether the relationships identified with a sample of secondary school-aged children exist for a younger sample of children preparing to make the transition to secondary school, and b) to investigate the roles of children's school specific anxieties and abilities in further explaining the link between pre-transition home

adversity and post-transition school adjustment. This study extends previous research by investigating how the home environment and children's social cognitions inform children's representations of the school transition and how this then orients children's school specific adjustment and externalising problems in the new school environment. It highlights those areas within the home that can be targeted with interventions in order to help children successfully adjust to this period of normative stress.

Chapter 5

This chapter reviews research that has highlighted the importance of the school environment in supporting children through the transition from primary to secondary school. Using a sample of 100 children preparing to make the transition to secondary school, 93 of their parents and several members of staff from participating primary and secondary schools, this chapter conducts a thematic analysis of qualitative data. This chapter highlights children's, parents' and teachers' views of those school-based characteristics that help and hinder children in their adaptation to the transition in order to highlight disparities between school practice, parental understanding and children's developmental needs. It further explores relationships between children's social cognitions pertaining to family relations and perceptions of school-based relationships to examine whether children experiencing dysfunctional family relations may benefit most from school-based support.

Chapter 6

This chapter synthesises the findings of the thesis to summarise factors that facilitate or impede children from making a successful transition to secondary school and highlights the areas that need to be targeted by policy and/or practice to potentially reduce externalising problems. Consideration is given to the methodological and measurement limitations of the studies and suggestions are made for directions for future research. Recommendations are made for ways to integrate theory and the key findings of the thesis with current practice and

policy that may help family functioning and child development, particularly during the transition from primary to secondary school.

CHAPTER 2

Chapter 1 presented a historical overview of theoretical perspectives that have oriented research examining the relationship between inter-parental conflict and children's externalising problems. A considerable body of empirical research that had been informed by the key theoretical perspectives was also reviewed and conclusions were drawn to suggest that inter-parental conflict exerts both a direct effect on externalising problems and an indirect effect via negative parenting behaviours. Negative parenting practices only partially mediated the relationship between inter-parental conflict and externalising problems. It was suggested that factors more internal to the child, such as internal working models, may provide an alternative but complimentary angle from which to examine variation in this relationship. This chapter examines the specific within-child processes that may explain the relationship between inter-parental conflict and children's externalising problems.

This chapter will also discuss the importance of considering children's and parents' gender, as well as the impacts of experiencing normative life transitions for understanding both typical and atypical cognitive, emotional and behavioural development during late childhood and early adolescence. It will conclude by illustrating the need to further examine the role of children's social cognitions about the quality of inter-parental *and* parent-child subsystems to gain a more complete understanding of the relationship between inter-parental conflict and behaviour problems during school transition.

The Role of the Child in the Relationship between Family Relations and Children's Externalising Problems

Since the late 1960's principal theories, including social learning theory (Bandura, 1965, 1969, 1977) and attachment theory (Bowlby, 1969), began to consider the child as

having an active role in their reactions to, and interactions with, their social environments. Bell (1968; Bell & Chapman, 1986) suggested that rather than a unidirectional effect existing between parenting strategies and child behaviours; there may be 'constitutional differences between children which affect behaviour' (p.82). In other words, individual differences internal to the child such as their temperament, responsiveness and capacity to understand and interpret events may elicit certain parenting behaviours rather than being uniquely oriented by such behaviours (Ramos, Wright-Guerin, Gottfried, Bathurst & Oliver, 2005; van Goozen et al., 2007; Van Zeijl et al., 2007). This relatedness between children's temperamental susceptibility and parenting practices could be conceptualised as a 'dual risk' factor for the development of later adjustment problems (Belsky, Bakermans-Kranenburg & van IJzendoorn, 2007). For example, a difficult temperament, or early behaviour problems, would put children at increased risk of manifesting higher levels of later externalising problems, especially when combined with the negative parenting practices such behaviours are likely to be associated with (Belsky et al., 2007). The concept of reciprocity or dual risk points to the importance of examining risk factors within the family environment, such as parenting practices or inter-parental conflict, alongside children's initial symptom levels to further understanding of variation in later externalising problems.

Research exploring reciprocity between parenting and child adjustment often sought to question the 'parent effect' on child socialisation by considering the role of children's behaviour as influencing parents' behaviour (e.g. Bell, 1968; Belsky, 1981, 1984). However, such research also drew attention to the importance of exploring children's interpersonal perceptions. For example, Bell and Chapman (1986) suggested that 'person orientation' or children's awareness of, and response to, the social behaviour of adults, could be associated with child behaviours and parenting strategies. They further

suggested that person orientation was associated with child moral development, altruistic behaviour and sociability via children's perceptions of parents' emotions and awareness and concern for parents' emotional reactions to bad behaviour. This aspect of their theory suggests that children's emotional and cognitive appraisals of parents' behaviour could mediate the relationship between parents' actions and children's social development. Bell's (1968; 1986) work focused on the role of children's understanding of parental emotionality for determining how responsive and compliant children would be with parents' enforcement of rules for expected behaviour. However, around the same time research was also beginning to explore the role of children's interpretations of the meanings of social interactions to elucidate how their cognitive appraisals were associated with social or antisocial behaviours (e.g. Dodge, 1986; Grych & Fincham, 1990).

The Role of Children's Social Cognitions in the Link between Inter-parental Conflict, Parenting Behaviours and Externalising Problems

Researchers have used the principles of social learning theories to further understanding about the development of challenging child behaviours, such as aggression (Nelson & Coyne, 2009). The Social Information Processing model (Crick & Dodge, 1994; Dodge, 1986) has explored the role of children's internal representations of their social environment to explain variation in aggressive and antisocial reactions to interpersonal interactions. The Social Information processing model is grounded in the theory that children's social cognitions are the mechanisms leading to their development and that maladjustment is a product of inappropriate cognitive processing. This model made significant advances in delineating the ways in which children use memories of past experiences to attend to particular social cues, which they use to determine cause and intent attributions and develop appropriate responses to each social interaction. Social

information processing has been most consistently applied to understanding children's behaviour in the context of peer relationships (e.g. Dodge, Bates & Pettit, 1990; Dodge & Somberg, 1987; Hubbard, Dodge, Cillissen, Coi & Schwartz, 2001). However, the principal component, that children's social cognitions pertaining to specific facets of interactions inform their behaviour, has been directly applied to understanding variation child adjustment in the context of the family.

The Cognitive-Contextual Framework

The Cognitive Contextual Framework (Grych & Fincham, 1990) describes a relationship between children's social cognitions about cause, intent and meaning of inter-parental conflict. It centres on the notion that children's cognitive appraisals of their home environment orient their emotional and behavioural development. Consistent with the principles of social learning theory (Bandura, 1965, 1969) and the social information processing model (Dodge, 1986), Grych and Fincham (1990) argued that it is children's *cognitions* about that conflict that determine how they react and respond to conflict exchanges. The authors proposed that following exposure to a conflict exchange, children engage in two stages of cognitive processing and that these are informed by contextual factors, as shown in Figure 2.1.

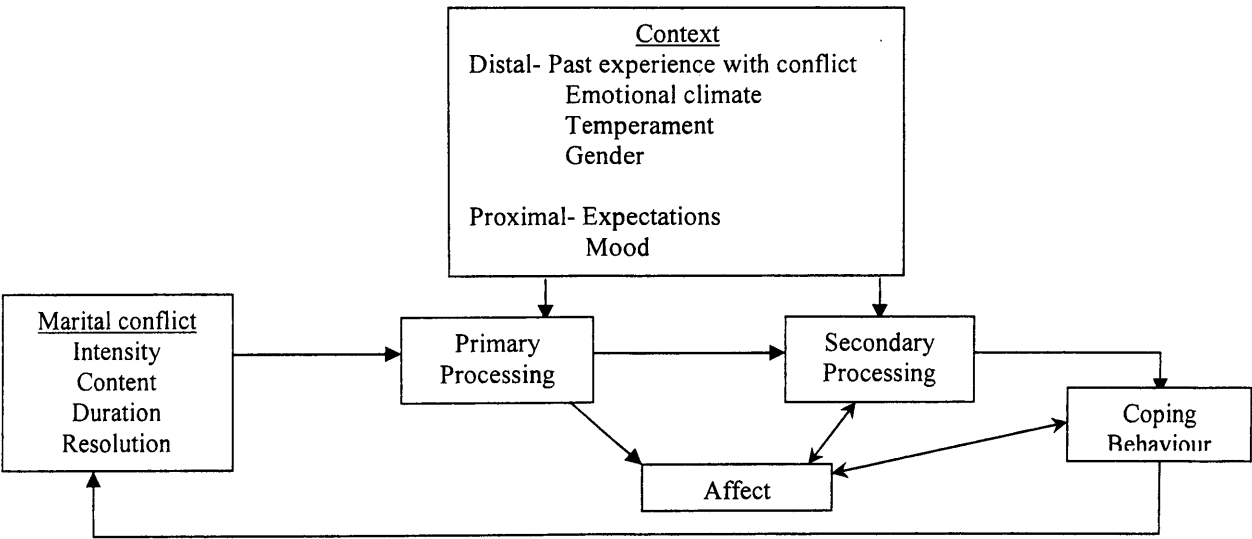


Figure 2.1: A cognitive-Contextual Framework for understanding children's responses to marital conflict. Adapted from Grych and Fincham (1990) p. 278.

In response to the initial hostile inter-parental exchange children engage in primary processing of the event to assess whether it is negative, threatening or self-relevant. These appraisals then evoke an affective reaction, such as fear. If children perceive the conflict to be particularly threatening, secondary processing also takes place to infer more information from the situation to assist with understanding and coping efforts. Secondary processing involves making an attribution for the cause of conflict, attributing blame or responsibility and generating expectations for the efficacy of their possible coping mechanisms. Children may attribute the cause of the conflict to themselves, others, such as their parents, or an external cause such as their parents' work. They must also determine the extent to which the conflict is stable and whether it is caused by a global (e.g. lack of love between parents) or specific (e.g. bad day at work) event. If children perceive conflict to be stable and global, this is theorised to increase their perception of the conflict as threatening to their well-being and family stability.

The extent to which conflict is frequent, intense or un-resolved and centred on the child or child rearing, is theorised to predict both primary processing, in terms of the negative affect children experience, as well as the secondary processing attributions children ascribe to the event. Moreover, distal factors such as children's memories of past conflicts and the general emotional climate of the family environment will influence the extent to which the conflict is threatening to the child. If children remember past conflicts as becoming violent and their home environment is ordinarily uncommunicative and emotionally distant they are more likely to feel distressed and threatened by the conflict than children who are used to a warm, emotionally responsive home environment. Second, proximal factors such as children's expectations for the cause of the conflict and their current mood will inform the level of stress they experience when conflict occurs with

negative or aggressive moods exacerbating the level of felt stress (Grych & Fincham, 1990).

Grych and Fincham (1990) theorised that the affect of conflict depends on children's awareness and understanding of it, which is informed by its properties as well as contextual factors and children's cognitive development. They tested their theory by showing a series of conflict vignettes to pre-adolescent children (Grych & Fincham, 1993). They found that intensely hostile conflicts were associated with the greatest negative affect and perceived threat. In addition, they found that the content of the conflict was of particular salience to children's negative affect. If conflict centred on the child, children were more likely to feel shame, ascribe self-blame attributions and fear of becoming involved in their parents' argument. Conversely, if children heard an explanation that absolved them of blame it reduced their feelings of responsibility and desire to intervene in the conflict as a coping mechanism.

The cognitive contextual framework marked a significant step forward in understanding pathways and processes specific to the child as central to understanding conflict effects on child adjustment. The authors also claimed that their framework should be a platform from which to explore a more 'complete model of family conflict' (Grych & Fincham, 1990, p. 278) in order to understand child adjustment.

A model that advanced this theory applied a family systems (Cox & Paley, 1997) approach to the consideration of the importance of children's social cognitions. The family wide model (Harold et al., 1997) explored the role of children's appraisals of facets of the inter-parental conflict as well as perceptions of the spill-over of emotion from the inter-parental to parent child relationship in the inter-parental conflict-child adjustment link.

The Family Wide Model

The family wide model (Harold & Conger, 1997; Harold, Conger, Osborne & Fincham, 1997) proposed that children's perceptions of inter-parental conflict, as well as their awareness of declines in the quality of the parent-child relationship, are key for understanding variation in indices of adjustment. The authors extended the concept of the spill over hypothesis (Erel & Burman, 1995) suggesting that children's appraisals of their parents conflict informs their perceptions of the level of hostility that their parents will project towards them. Both the perceptions of the conflict frequency and their appraisals of parent-child hostility are then proposed to orient children's immediate and long-term adjustment problems as shown in Figure 2.2.

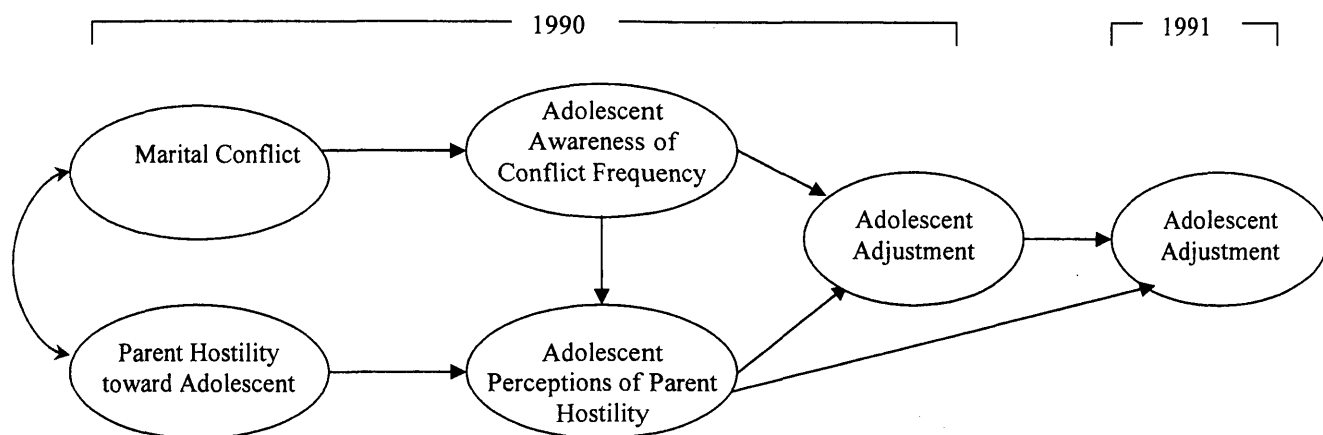


Figure 2.2: The Family Wide Model of conflict effects on children. Adapted from Harold, Fincham, Osborne and Conger (1997), p. 340.

Harold and colleagues (1997) described how inter-parental conflict exchanges lead to children's perceptions of hostility in the general family climate and that children's specific awareness of conflict frequency heightens the child's sensitivity to particular hostile and aggressive patterns of behaviour. This process then predicts heightened distress, as children fear that their parents will direct the hostility and aggression towards them and treat them in the same negative way as they have treated their spouse. This is consistent with the hostile attribution bias theory proposed by Crick and Dodge (1994).

Children exposed to repeated instances of hostility and aggression are more likely to become attentive to hostile and aggressive cues in social interactions which then elicit an aggressive response towards peers (Burks, et al., 1999; Crick & Dodge, 1994; Hubbard, et al., 2001). The same appears to be true of children exposed to repeated instances of hostile inter-parental and parent-child interactions such that they are more likely to attend to aggressive, hostile cues and react in an aggressive or antisocial way.

Harold and colleagues (1997) tested their theory with a sample of young adolescents and their families and found support for this supposition. Adolescent awareness of conflict frequency was associated with concurrent externalising behaviour problems via their awareness of parental hostility. Adolescent awareness of parental hostility also had a direct effect on girls' externalising behaviour problems measured one year later. The authors concluded that adolescents who have witnessed inter-parental conflict perceive parent-child conflict as more hostile than their counterparts who have not been exposed to frequent inter-parental conflict. This finding is consistent with ideas of both the spill-over (Erel & Burman, 1995) and hostile attribution bias (Crick & Dodge, 1994) theories. The findings underscore the importance of considering children's cognitions in the context of inter-parental conflict for understanding links specifically with externalising problems.

Harold and colleagues' (1997) studies were the first to simultaneously assess the role of children's appraisals of the properties of their parents' conflict alongside their appraisals of the relationship they had with their parents, in the context of inter-parental conflict. In addition, they used a prospective, longitudinal design to examine effects across time and illustrate the extent to which inter-parental functioning could orient children's long-term maladjustment, via their social cognitions. Consistent with Family Systems Theory (Cox & Paley, 1997), their findings illustrate that discord within one subsystem

deleteriously affects the quality and functioning of others subsystems. They also illustrate that children's cognitive appraisals of family relations consistently explain variation in indices of adjustment, including externalising problems, in the context of inter-parental conflict. Collectively, these studies demonstrate the importance of viewing the child as an 'active agent' whose social cognitions about family interactions have a greater impact on their behaviour than the interactions themselves.

When taken together, these theories provide clear support for considering children as active rather than passive in their experiences or interpretations of hostile family relations. More importantly they demonstrate that specific parenting behaviours are not the only mechanism through which inter-parental conflict is associated with children's psychological well-being. Instead, children's social cognitions pertaining to qualities of parent-child interactions as well as attributions assigned to the content, cause and intent of the inter-parental conflict can offer key insights into variation in children's adjustment in the context of conflict.

Alternative theories have proposed that it is necessary to explore the role of children's emotions alongside their cognitions as emotions play a key role in the interpretation of, and reaction to an event. For example, the Emotional Security Hypothesis (Davies & Cummings, 1994) applied attachment theory (Bowlby, 1969) to the study of the inter-parental conflict-child adjustment relationship and suggested that that children would be likely to evidence maladjustment as a result of both cognitive and emotional reactions. These include heightened emotional arousal, impaired perceptions of internal representations of the parent-child attachment and the use of inappropriate coping strategies to regulate exposure to the conflict. The Process of Marital Conflict on Child Behaviour and Adjustment model (Crockenberg & Forgays, 1996) developed the conception of the relationship between cognitions and emotions further suggesting that

cognitive representations of the conflict and parent affect would elicit specific emotions, which would, in turn, orient behavioural adjustment.

Both theories made a convincing argument for the need to include emotions in the exploration of the association between children's interpretation of their parent's conflict and their adjustment. However, when empirically tested, the emotional security hypothesis has yielded stronger effect sizes for indices of internalising symptoms than externalising problems (e.g. Davies & Cummings, 1998; Sturge-Apple, Davies, Winter, Cummings & Schermerhorn, 2008). Similarly, the process of marital conflict on child behaviour and adjustment model only identified significant associations between cognitions, emotions and behavioural response for internalising symptoms (e.g. Crockenberg & Forgays, 1996; Crockenberg & Langrock, 2001). It is, therefore, considered that cognitions, rather than emotional responses, pertaining to family relations may be more pertinent for understanding variation in externalising problems, in the context of inter-parental conflict.

Recent Developments in Family-Based Research

The theoretical perspectives outlined above stimulated a programme of research that sought to identify the mechanisms, or processes, through which couple conflict affects children. In line with the cognitive-contextual framework (Grych & Fincham, 1990) studies have illustrated the importance of children's appraisals of threat and their self-blame attributions in linking inter-parental conflict to behavioural maladjustment. For example, El-Sheikh and Harger (2001) found that children evidenced higher levels of behaviour problems in response to marital conflict if they perceived it to be highly threatening. Self-blame attributions have also been identified as an important mechanism linking inter-parental conflict to adolescents' externalising behaviour problems measured within time (e.g. Fosco & Grych, 2007, 2008) and 12 months later (Grych et al., 2003). In

addition, inter-parental conflict and hostility have been found to exert effects on adolescents' externalising behaviour problems via both threat and self-blame perceptions within (Gerard, Buehler, Franck & Anderson, 2005) and across time (Buehler, Lange & Franck, 2007). This research, demonstrates that children and adolescents' internal representations of the meanings of their parent's interactions are associated with their behavioural development.

There are also several studies documenting the importance of adolescent appraisals of hostile or rejecting parenting in the context of inter-parental conflict for understanding externalising behaviour problems within time (e.g. Harold et al., 1997; Shelton & Harold, 2008) and across time (e.g. Harold & Conger, 1997). Parents' reported distress and dysfunctional parent-child interactions have been found to be positively associated with children's perceptions of negative parenting behaviour which were, in turn, linked with behaviour problems (Putnick et al., 2008). Similarly, perceived parent-child conflict has been found to mediate the association between inter-parental conflict and externalising problems while father-child attachment partially mediated the association between conflict and behaviour problems for girls and fully mediated the association for boys (El-Sheikh & Elmore-Staton, 2004).

It has been suggested, however, that investigating the role of social cognitions pertaining to individual relationships provides an incomplete picture of the family process-child adjustment link. Cummings and Davies (2002) argue that multiple causal mechanisms link inter-parental conflict with children's psychosocial problems. They suggest that it is necessary to test 'multi-mediator models' that incorporate both direct effects of conflict and indirect effects operating via children's cognitions of the inter-parental *and* parent-child relationships. The authors propose that maladjustment is something that develops over time and so it is important to consider the cognitive,

emotional and behavioural processes that orient children's psychosocial functioning over time. They argue that employing a dynamic model that tests multi-mediating pathways simultaneously will unify different theoretical perspectives and further understanding of the processes that underlie child adjustment problems.

Recent research has applied a process-oriented approach (Cummings & Davies, 2002) by integrating principles from the cognitive-based theories (cognitive-contextual framework, Grych & Fincham, 1990; social information processing model, Crick & Dodge, 1994), emotion-based theories (emotional-security hypothesis, Davies & Cummings, 1994; the process of marital conflict and children's behaviour, Crockenberg & Forgays, 1996) and dual pathway models (family wide model, Harold and colleagues, 1997a,b).

Harold, Shelton, Goeke-Morey and Cummings (2004) applied a process oriented approach to an integrated model of the emotional security hypothesis and family wide perspective. Harold and colleagues (2004) explored the extent to which children's emotional, behavioural and cognitive representations of marital conflict informed their perceptions of emotional security about parenting and emotional and behavioural adjustment one year later. Their results showed that cognitive representations of the extent to which inter-parental conflict was resolved and whether the topic would be a recurrent problem predicted how secure children felt that their parents would be available and dependable. This study provided support for Crick and Dodge's (1994), Harold and colleagues' (1997a, b) and Cummings and Davies' (2002) hypothesis that children's negative cognitive representations of marital relations informed their negative representations of other social interactions within the broader family context. Furthermore, Harold et al., (2004) demonstrated that children's emotionally insecure representations of

parent-child relationships were associated with their behavioural and emotional maladjustment.

The findings suggest that children's representations of parenting are more proximal to adjustment problems and can serve to indirectly link representations of inter-parental conflict with adjustment outcomes. However, the assessment of cognitive representations of the conflict related specifically to conflict resolution and the likelihood of it being a future problem. The cognitive contextual framework reviewed in this chapter identified attributions of cause and intent or perceptions of the meanings of conflict for children and family stability as fundamental for understanding psychosocial adjustment (Grych & Fincham, 1990). Moreover, Harold and colleagues' (2004) study tested children's cognitive representations of inter-parental conflict 12 months prior to their representations of parent-child interactions. It is possible that if threat perceptions or self-blame attributions were tested concurrently with children's representations of parent-child interactions as mediators, these cognitions may also have exerted an affect on maladjustment over time.

A small body of research has made advances in testing dual pathway models integrating specific cognitions identified in the cognitive contextual framework (Grych & Fincham, 1990) concurrently with children's perceptions of aspects of the parent-child relationship. In one instance, children's emotional security in the family was tested alongside children's threat and self-blame attributions as mediating mechanisms in the relationship between inter-parental conflict and child adjustment (Davies et al., 2002). When externalising problems were considered as the outcome variable, inter-parental conflict exerted effects via both emotional security pertaining to family relations and children's self-blame attributions. More recent work has tested the mediating and moderating properties of self-blame attributions as well as perceptions of the quality of the parent-child relationship concurrently. One study suggested that both self-blame

attributions and positive parenting were important in the relationship between inter-parental conflict and maladjustment but that self-blame mediated this relationship whereas positive parenting moderated the association between self-blame attributions and adjustment problems (Ghazarian & Buehler, 2010). Additional work has tested children's self-blame attributions and representations of parenting behaviour concurrently as multiple mediators in the relationship between inter-parental conflict and later child maladjustment (Harold, Aitken & Shelton, 2007). Results indicated that it was children's self-blame attributions that were the primary mechanism through which inter-parental conflict was associated with child adjustment problems. However, both of these studies tested indices of academic performance, and not behavioural adjustment, as the outcome measure making it difficult to draw conclusions about which cognitive processes are more pertinent for behaviour problems.

The results of these studies are clearly mixed and given the fact that each study has employed a different construction of variables in their design it is unclear as to whether cognitions pertaining to the inter-parental or parent-child relationship are more important for understanding variation in externalising problems. Collectively though, these studies point to the importance of considering cognitions pertaining to both family subsystems when attempting to explain variation in children's externalising problems in the context of inter-parental conflict. More research is needed to investigate the role of the wider developmental context for understanding why, when and how inter-parental conflict exerts effects on children.

Contextual Factors Influencing Child and Adolescent Adjustment

Age

Evidence indicates that children of all ages, from as young as six months old, can show distress in responses to instances of inter-adult anger (e.g. Davies & Cummings,

1994). However, rather than influencing the level of distress, age may influence the way in which conflict exchanges are interpreted by children and the manner in which they respond (e.g. Crick & Dodge, 1994; Cummings & Davies, 2002; Davies & Cummings, 1994; Grych & Fincham, 1990). For example, young school-aged children have been found to present increased internalising symptoms in response to both threat and self-blame appraisals in the context of inter-parental conflict (Ablow et al., 2009; McDonald & Grych, 2006). For adolescents, self-blame and threat attributions have been associated with heightened levels of both internalising symptoms and externalising problems (e.g. Buehler et al., 2007; El-Sheikh & Harger, 2001; Fosco & Grych, 2007; Gerard et al., 2005; Grych, et al., 2003), although self-blame attributions are more consistently linked to behavioural problems among adolescents (e.g. Buehler et al., 2007; Fosco & Grych, 2007, 2008; Grych, et al., 2003). This suggests that although adolescents do not appear to experience higher levels of self-blame for inter-parental conflict than younger children (Richmond & Stocker, 2007), these attributions seem more salient for their behavioural problems.

In order to understand these findings it is important to consider the role of social development and changes to children's life experiences that are pertinent to this thesis. It has been suggested that early adolescence is a time of increased stress across multiple contexts, including the family (Rudolph & Hammen, 1999). Adolescents may be exposed to increased levels of inter-parental conflict as parents regard them as more robust to such exchanges than younger children (Grych & Fincham, 1990). In addition, marital satisfaction has been found to decline during adolescence and the decline is associated with increased child centred inter-parental conflict over time (Cui & Donnellan, 2009). Parent-child and child centred conflict also reaches a peak in early adolescence (Eccles et al., 1993; Harold et al., 2001; McGue, Elkins, Walden & Iacono, 2005). Child-centred conflict has been associated with increased levels of self-blame attributions compared to conflict

that centres around parents' own problems, such as work or finances (Grych, 1998).

Moreover, perceived parental support, warmth and involvement has been found to decline across early adolescence (e.g. McGue et al., 2005).

It has been suggested that adolescents will have a greater repertoire of coping mechanisms as well as the ability to leave a conflictual home environment to spend time with peers (Crick & Dodge, 1994; Grych & Fincham, 1990). On average, adolescents spend less time with their parents than children with a decline of 21% of waking time spent with family members from age 10 to age 18 (Larson, Richards, Moneta, Holmbeck & Duckett, 1996). As young children are more dependent on their parents and less able to leave the home during conflict, they may be seen as more vulnerable to conflict effects (Grych & Fincham, 1990). However, adolescents' ability to use their peers for social support together with other coping behaviours will partly depend on previous experience of the success of doing so to ameliorate the effects of conflict (Crick & Dodge, 1994; Grych & Fincham, 1990). Repeated exposure to unsuccessful or negative experiences of using certain resources may inhibit adolescents' ability to use them in response to conflict (e.g. Crockenberg & Forgays, 1996). This inhibition may leave them more vulnerable to the negative experiences of conflict than younger, less experienced, children who are more optimistic in their abilities to successfully cope with conflict and who therefore experience less anxiety or behavioural distress (Grych & Fincham, 1990).

Collectively, this research suggests that adolescents may have developed more coping resources and sources of support outside the family compared to younger children. However, adolescents are more likely to be exposed to increased levels of destructive inter-parental conflict and potentially reduced levels of parental support, as well as being more vulnerable to feelings of responsibility for the conflictual episodes. These risk factors have all been described above as being associated with increased levels of externalising

problems in the context of inter-parental conflict (e.g. El-Sheikh & Elmore Staton, 2004; Fosco & Grych, 2007; Grych et al., 1993, 2003; Ketsetzis, 1998; Richmond & Stocker, 2007) and suggest that early adolescence is an important stage to explore these relationships further.

Gender

Empirical evidence indicates that boys and girls are both vulnerable to the negative effects of inter-parental conflict but they cope with, process and manifest their reactions to it in different ways (Cummings & Davies, 2002; Grych & Fincham, 1990).

Gender does not appear to moderate the level of inter-parental conflict children are exposed to (Dadds, Atkinson, Blums & Leindich, 1999; Davies & Windle, 1997) suggesting that parents do not differentiate between sons or daughters in their expressions of conflict. Similarly, there is little evidence of consistent differences in boys' and girls' behavioural responses to inter-parental conflict (e.g. Davies & Cummings, 1994; Grych & Fincham, 1990; Shelton & Harold, 2007, 2008). Rather than influencing exposure or reaction to conflict, most authors conclude that gender may moderate children's social cognitions of its meaning, based on distinct socialisation processes (e.g. Brody, 2001; Crick & Dodge, 1994; Cummings, Davies & Simpson, 1994; Davies & Cummings, 1994; Grych & Fincham, 1990).

From a very young age, parents socialise girls and boys in different ways with girls being encouraged to be sociable and affectionate and boys being encouraged to be aggressive and assertive in attaining their goals (Brody, 2001). It has been argued that these gendered socialisation processes result in distinct behaviour patterns in general social interactions as well as in reactions to inter-parental conflict.

Boys are considered more likely to be physically aggressive and competitive than girls from a young age but are also more likely to respond to anger in an aggressive way

and to endorse aggressive acts within peer interactions (Brody, 2001; Crick & Dodge, 1994; Davies & Cummings, 1994; Snyder, 1998). In social interactions boys tend to attempt to be dominant in large peer groups during public and physically aggressive play (Crick & Dodge, 1994; Zahn-Waxler, 2000), or autonomous and less dependent on parents (Brody, 2001). This may, in part, be a result of parents' use of more harsh and physical discipline and play strategies and less affectionate responses towards boys than girls (Buehler & Gerard, 2002; Golombok & Fivush, 1994; Zahn-Waxler, 2000). Such parenting behaviours can communicate to boys that physical exchanges are acceptable while emotional responses to challenging situations are inappropriate. In addition, parents tend to praise boys' achievements to a greater degree than girls' achievements reinforcing their self-belief and self-confidence in their abilities (Zahn-Waxler, 2000).

In contrast, girls tend to be offered more negative evaluations in response to physical or instrumental achievements, making it more difficult for them to make positive self-attributions for success and easier to make negative self-attributions for failure, compared to boys (Zahn-Waxler, 2000). Parents also discourage the exploration of the physical environment with girls (Zahn-Waxler, 2000) and aggression is less normative or less tolerated in girls than boys (Davies & Lindsay, 2001; Davies & Windle, 1997; Grych & Fincham, 1990). Girls are expected to be more prosocial and interpersonally oriented, particularly towards family relations, than boys who tend to be more instrumentally oriented (e.g. Brody, 2001; Crick & Dodge, 1994; Davies & Lindsay, 2004; Davies & Windle, 1997; Zahn-Waxler, 2000). They also tend to have more intimate friendships, maintaining relationships with compliments and imitation and try harder to make reparations with mothers following a hurtful interaction, when compared to boys (Zahn-Waxler, 2000).

It has been suggested that when children perceive social interactions maladaptively they will attend to typical gender stereotyped cues. Boys will be more likely to attend to cues such as challenges to social dominance whereas girls will be more likely to attend to threats to relationships. Such perceptions will then be associated with inter-personally and instrumentally oriented retaliation for girls and boys, respectively (Crick & Dodge, 1994; Zahn-Waxler, 2000).

As a result of such differential socialisation and expectations for goals and behaviour, it would seem that girls may be more inclined to feel anxious about negative or hostile social and family interactions and keen to take responsibility to resolve them (Davies & Windle, 1997). Conversely, boys may feel threatened that hostility and dominance within family relations may detract from their reinforced desire to achieve mastery and social independence (Zahn-Waxler, 2000). Indeed, girls generally appear to experience greater levels of inter-personal stress linked to peer and family relationships than boys who experience increased non-interpersonal stress related to schooling or maintaining their social identity (Rudolph & Hammen, 1999). Some studies have found that girls are more likely to feel responsible for inter-parental conflict than boys who feel more threatened by it (e.g. Cummings et al., 1994; Kerig, 1998a, b). In addition, girls' responsibility attributions and awareness of disruptions in the parent-child relationship are stronger predictors, than those of boys', of later behaviour problems (Grych et al., 2003; Harold et al., 1997).

These gender differences have been described as becoming especially pronounced during early adolescence when a process of gender intensification is theorised to occur (e.g. Davies & Lindsay, 2001; Hill & Lynch, 1983; Zahn-Waxler, 1993). The gender intensification theory hypothesises that when children transition to adolescence and physical differences become more apparent, the pressures to conform to gender stereotypes

become more intense. Boys are expected to be more self-interested, competitive and autonomous in preparation to be self-sufficient and follow the masculine roles of provider and protector. They are also expected to react to threatening or hostile situations in an aggressive and dominant manner (Zahn-Waxler, 1993). Girls are expected to become more affectionate, concerned for the welfare of others, unassertive and engaged with maintaining close relationships in preparation to adopt matriarchal responsibilities (Davies & Lindsay, 2001; Hill & Lynch, 1983). They are expected to react to negative interactions in a way that is in keeping with their gender role and is more subservient and internalised (Emery, 1982; Zahn-Waxler, 1993).

Davies and Lindsay (2004) demonstrated that gender moderated the relationship between inter-parental conflict and internalising symptoms. Adolescent girls were more vulnerable to evidencing increased internalising symptoms in response to inter-parental conflict, compared to boys. This finding was stronger for those girls who placed greater emphasis on communion or maintaining close inter-personal relationships within the family. This study provides some support for the gender intensification hypothesis. However, gender did not moderate the relationship between inter-parental conflict and externalising behaviour. This study only provided support for the argument that adolescent girls with high levels of communion were more vulnerable to internalising symptoms in the context of couple conflict. It did not provide support for the notion that adolescent boys are more likely to react aggressively to discord.

Other studies have shown that family discord has stronger associations with girls' behaviour problems including delinquency, alcohol abuse and parent-adolescent conflict compared to boys (e.g. Buehler & Gerard, 2002; Davies & Windle, 1997). These findings suggest that although girls may become more vulnerable to conflict within the family they are not necessarily likely to react in a gender stereotyped way. In fact, girls seem as likely

as boys to react with anger to inter-parental hostility and aggression (Crockenberg & Langrock, 2001). The gender intensification hypothesis may, therefore, not accurately describe the differential gender responses to inter-parental conflict reflected in current research. Moreover, studies have illustrated that girls and boys may also process inter-parental conflict in a less gender-stereotyped way such that adolescent boys were more likely to blame themselves for inter-parental conflict than girls and, when exposed to repeated instances of conflict, girls were more likely to feel threatened than boys (Dadds et al., 1999; Richmond & Stocker, 2007). It has been suggested that the gender intensification hypothesis is an outdated method of conceptualising contemporary adolescents' perceptions of, and reactions to, inter-parental conflict (Priess, Lindberg, & Shibley Hyde, 2009). It is considered that children and adolescents may follow fewer gender specific norms than in previous generations and that their interpretations of, and reactions to, their social environment are more likely to be oriented by individual experiences than gender stereotypes (Golombok & Fivush, 1994; Preiss and colleagues, 2009).

A potentially more informative angle from which to view the role of gender is to consider cross gender effects between parent-child dyads. Research has suggested that the four distinct dyads within the parent-child relationship, the mother-son, mother-daughter, father-son and father-daughter dyad, function differently in the context of the inter-parental conflict (e.g. Cowan, et al., 1993; Russell & Saebel, 1997; Snyder, 1998). While parent gender influences the parenting behaviours used to socialise children, child gender informs the values that orient parent socialisation strategies (Snyder, 1998). This cross gender effect offers insight into the mechanisms through which gender may moderate children's behavioural development in the context of inter-parental conflict.

During inter-parental conflict, wives are more likely to engage in conflict while husbands are more likely to withdraw from their wives (Crockenberg & Langrock, 2001;

Snyder, 1998). Research has illustrated how these basic gendered behaviour patterns transfer to opposite sex parent-child relationships, particularly following instances of conflict. It has been argued that fathers' parenting styles are more deleteriously impacted by inter-parental conflict than mothers' (Kaczynski, Lindahl, Malik & Laurenceau, 2006; Snyder, 1998). Fathers have consistently been found to withdraw from their children, especially daughters (e.g. Buehler & Gerard, 2002; McHale, 1995; Snyder, 1998; Zahn-Waxler, 2000) whereas mothers have been rated higher on triangulation and coercive interactions with sons (Kaczynski et al., 2006; Margolin, Gordis & John, 2001).

Recent work has tested the unique effects of mother-child and father-child interactions during inter-parental conflict (e.g. Buehler & Gerard, 2002; Kaczynski et al., 2006; Shelton & Harold, 2008). Buehler and Gerard (2002) demonstrated that in the context of inter-parental conflict, maternal harsh discipline and withdrawal were more likely to be associated with adolescent maladjustment than paternal parenting behaviours. Shelton and Harold (2008) and Kaczynski and Colleagues (2006) found further gender effects showing that mother-child rejection was more consistently associated with externalising behaviour problems, whereas father-child rejection was associated with internalising symptoms.

Collectively, this research suggests that child gender may moderate associations between inter-parental conflict, children's appraisals and attributions about conflict, and adjustment outcomes. However, it is also clear that parent behaviour, specifically in opposite gender relationships may orient children's responses illustrating the importance of considering both parent and child gender in family based research.

Summary

The work reviewed in this chapter demonstrates that children actively interpret family relations and it is their social cognitions about the meaning of inter-parental conflict that orients their response to it. There is a corpus of research showing that inter-parental conflict is associated with children's increased behavioural problems as a function of their awareness of the meanings of the conflict for their own well-being and their relationship with their parents. Support is given for Cummings and Davies (2002) argument that 'multiple causal mechanisms may be operating' (p.39) to link conflict to children's externalising problems. However, there is a paucity of research that has simultaneously assessed multiple mechanisms, including cognitions pertaining to the inter-parental and parent-child relationship, for understanding children's response to inter-parental conflict. Moreover, the research that has employed a dual pathway approach has employed a variety of measures, tested multiple outcomes and yielded mixed results.

This chapter has demonstrated that there is a need for further research to employ measures of cognitions, highlighted in the cognitive contextual framework, concurrently with measures of cognitions pertaining to the parent-child relationship quality and a behavioural outcome. Further investigation of the role of developmental contexts, including the normative life transitions that occur during early adolescence, as well as the role of child and parent gender, is also warranted to increase understanding of *when* and *how* these contextual factors may moderate children's experience of inter-parental conflict.

The research chapters that follow will address these questions. However, it should be noted that the data analysed in this thesis derive from two broader research projects, which are referenced in the methods section of each respective chapter. Chapter 3 uses data that derives from the Welsh Family Study (RES-000-2225-69; referenced on p.68) whilst Chapters 4 and 5 use data that derive from the School Transition Study (RES-000-22-1041;

referenced on p.97 and p.129). Both research projects employed a multitude of questionnaires to assess demographics, family functioning, child and parent mental health and school environment. Variables were selected for the studies in this thesis from these projects to answer the research questions that were identified in the respective research grants. As identified in Chapter 1, the research grants collectively stated that research emanating from them should assess direct and indirect effects from inter-parental conflict to externalising problems and explore the within family and within child factors that affected children's transition from primary to secondary school.¹

To address these questions, Chapter 3 will explore the direct and indirect effects of inter-parental conflict on the externalising problems within the classroom of a post-transition sample. It will assess within family factors, including inter-parental conflict, parental hostile rejection and parent gender, and within child factors, including social cognitions of family relationships and child gender. Chapter 4 will extend these analyses with a pre-transition sample, by assessing the role of within family factors on children's pre-transition anxiety and post transition school adjustment and externalising problems. Finally, Chapter 5 will provide a more detailed investigation into the within family, within child *and* within school factors that contribute to children's perceptions and preparations for the transition to secondary school. This qualitative analysis will also contribute to the final objective identified in the School Transition Study grant of developing a 'home-based intervention program aimed at helping parents understand how family factors affect children's development'. By addressing these objectives the research presented in this thesis contributes to, and extends, existing studies deriving from the broader research projects.

¹ For further information on the Welsh Family and School Transition Studies please contact the research director Professor Gordon Harold at Leicester University (gth9@Leicester.ac.uk).

Collectively, it will provide an overall picture of relationships between family relations and children's school based behavioural adjustment, surrounding the transition from primary to secondary school. When taken together, these directions for research and the empirical and theoretical findings reviewed in Chapters 1 and 2 contribute to several hypotheses that shall be explored in the following chapters.

These can be summarised in Figure 2.3.

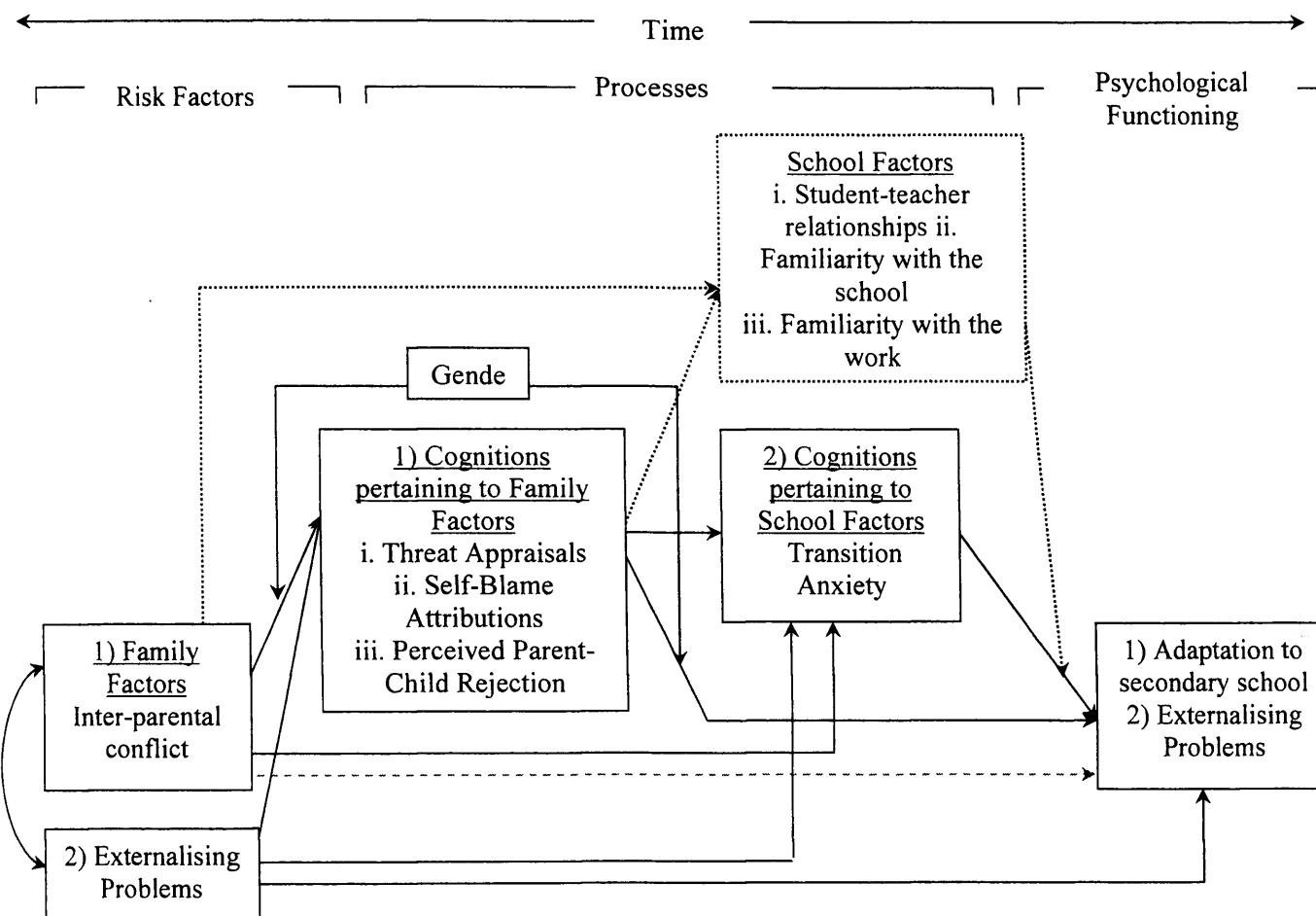


Figure 2.3: Theoretical model identifying hypothesised pathways and processes linking inter-parental conflict to post transition externalising problems

Concretely this model illustrates a process-oriented approach to assessing the direct and indirect links between family functioning and externalising problems over time, whilst also controlling for initial symptom levels (Cummings & Davies, 2002).

Based on the research reviewed, it is hypothesised that threat and self-blame

appraisals will mediate the relationship between inter-parental conflict and externalising problems as previous research has identified both cognitions to orient variation in adolescents' externalising problems (e.g. Gerard et al, 2005; Buehler et al, 2007). Parent-child harsh rejection is also hypothesised to mediate this relationship as the transition literature consistently highlights parenting as orienting children's adjustment to transition (e.g. Dubois et al, 1994; Seidman et al, 2003). It is further hypothesised that perceptions of pre-transition inter-parental conflict will be associated with externalising problems via increased transition anxiety. There is often high comorbidity between internalising and externalising symptoms, which may be especially pronounced when assessing indices of school based internalising and externalising problems. Furthermore, research has suggested that maladjustment in secondary school may be a product of a difficult transition resulting, in part, from increased anxiety about making the move (e.g. Felner et al, 1981; Nottlemann, 1987).

It is hypothesised that child gender will moderate links between inter-parental conflict and cognitions as well as between cognitions and externalising problems as research indicates that gender influences children's social cognitions of conflict and, by extension, the way they react to it (e.g. Brody, 2001; Cummings et al, 1994; Grych & Fincham, 1990).

Finally, Figure 2.3 identifies school based factors including student-teacher relationships, familiarity with the school, familiarity with the work and peer relationships as moderators as these factors are consistently identified within the transition literature as informing transition (e.g. Anderson et al, 2000; Eccles et al, 1993; McLaughlin & Clarke, 2010). These are hypothesised to act as moderating factors that are both informed by children's social cognitions and interact with them to influence externalising problems. However, these pathways are represented with

dotted lines as they will not be quantitatively tested within this project but will be tested with qualitative analyses with a view to identifying links between the home and school environment as well as informing hypotheses for future quantitative research.

These hypotheses will be tested across the following three chapters. Analysis will begin with a broad study of direct and indirect links between inter-parental conflict and externalising problems. This will lead onto a more specific analysis of these pathways during the 12 months surrounding transition and conclude with a detailed exploration of the school-based factors that interact with the home environment and inform the transition experience.

CHAPTER 3

Introduction

The opening chapters have demonstrated the theoretical importance of considering children and adolescents' understanding of family relations in orienting the development of externalising problems. The purpose of this chapter is to examine the nature of relationships between inter-parental conflict, adolescent appraisals of family relations and their school-based behaviour in the immediate aftermath of experiencing the transition into secondary school; a key period of adjustment orienting children's school-based functioning (Anderson et al, 2000; Ward, 2000).

Specifically, this chapter will test the effects of inter-parental conflict that co-occurs with the adjustment period, adolescents experience in the first term of secondary school, on externalising problems during early adolescence. Late childhood to early adolescence is a time characterised by multiple normative transitions, both developmental and social in nature, and therefore marks an important time to study interactions between the social environment and adjustment (McLaughlin & Clarke, 2010). This chapter will examine whether inter-parental conflict is associated with externalising problems via children's threat appraisals, their attributions of self-blame and/or via perceptions of maternal and paternal harsh-rejecting parenting practices. Finally, the role of child gender will be considered as a moderator of the relationships between inter-parental conflict and children's appraisals, as well as appraisals and externalising problems, to identify whether different processes characterise the pattern of effects for boys and girls.

The Importance of Considering the Home Environment in the Development of School-Based Externalising Problems

As described in Chapter 1, behaviour problems have been reported to present one of the greatest challenges to the learning environment and socio-emotional climate within schools (Shechtman & Ifargan, 2009). There is clearly a need to reduce these problems. Chapter 1 discussed the importance of examining the role of family relations in children's development of school-based externalising problems and many studies have empirically tested links between dysfunctional family relations and indices of school-based adjustment (e.g. Campbell, 1994; Dishion & Andrews, 1995; Fergusson, Horwood & Lynskey, 1994; Harold et al., 2007; Ghazarian & Beuhler, 2010; Reid, Eddy, Fetrow & Stoolmiller, 1999). The research suggests that the impact of negative family relations extends beyond the home environment to orient children's functioning within the class. Further research is required that examines the mechanisms through which these effects are exerted.

The Mediating Role of Social Cognitions of Family Relations in the Relationship between Inter-Parental Conflict and Externalising Problems

The opening chapters reviewed two fairly distinct bodies of literature identifying child and adolescent cognitions pertaining to their parents' conflict versus cognitions about relationships with their parents as key to understanding how inter-parental conflict affected their socio-emotional functioning. On the one hand, research has demonstrated that appraisals of threat and self-blame attributions, in the context of conflict, orient child and adolescent externalising problems (e.g. Buehler et al., 2007; El-Sheikh & Harger, 2001; Fear et al., 2009; Fosco & Grych, 2007; Gerard et al., 2005; Grych et al., 2003). On the other hand, studies have demonstrated that

appraisals of negative parenting practices including hostility, rejection, conflict, increased pressure and reduced support are linked with elevated distress and adjustment problems (e.g. Buehler and colleagues, 2002, 2006, 2008; El-Sheikh & Elmore-Staton, 2004; Harold et al., 1997; Ketsetzis et al., 1998; Shelton & Harold, 2008; Putnick et al., 2008).

The small body of research that has made advances in uniting these literatures (e.g. Davies et al., 2002; Ghazarian & Buehler, 2010; Harold et al., 2007) has not consistently tested appraisals of threat and self-blame alongside perceptions of the parent-child relationship quality. The study that did test self-blame attributions and perceived parent-child rejection concurrently found that self-blame, and not parent-child rejection predicted academic achievement (Harold et al., 2007). However, as stated, this study used an index of academic not behavioural school-based functioning.

There remains a paucity of research that explores how inter-parental conflict informs school-based behavioural adjustment and even less research that has investigated this relationship around the transition into secondary school. Family based research has highlighted periods of transition as times of increased vulnerability and reorganisation to family functioning (e.g. Cox & Paley, 1997; Sameroff, 1983). The transition into secondary school therefore marks an exciting time during which to study adolescent behaviour and the pathways and processes through which family relationships inform it (Eccles & Harold, 1993).

Normative Changes in Family Relations around the Time of School Transition

In the UK, students make the transition to secondary school at the same time as the transition to early adolescence (11-12 years old), which is purported to co-occur with a

distinct shift in the way they view social interactions (e.g. Allen & land, 1999; Grych & Fincham, 1990; Lerner & Steinberg, 2004; McLaughlin & Clarke, 2010; Inhelder & Piaget 1958). During the transition to adolescence, parent-child relationships undergo significant transformations marked by high levels of conflict and disagreements and, ultimately, whole family systems transform from a hierarchical structure to encompass more equal relationships (Smetana, Campione-Barr & Metzger, 2006). Children typically become less dependent on adults and spend more time with peers (Grych & Fincham, 1990; Larson et al., 1996) as their developmental needs become increasingly tied to achieving autonomy and forming social identities (Eccles et al., 1993, Holmbeck, 1996; McLaughlin & Clarke, 2010).

However, only a minority of adolescents seek to completely alienate themselves from parents (Kruse & Walper, 2008; Smetana et al., 2006) and those adolescents that maintain supportive and secure attachments with authoritative parents appear to adjust successfully to these interpersonal transitions (e.g. Allen et al., 1998; Steinberg, 2001). This would suggest that despite the desire for autonomy, the optimal home environment to promote adolescent pro-social behaviour would be characterised by supportive parent-child relationships that maintain a degree of authority at the parent level. Conversely, it is likely that exposure to inter-parental conflict and disrupted parent-child relationships will leave children at increased risk of developing externalising problems around the time of school transition (e.g. Bronstein, Clauson, Frankel Stoll, & Abrams, 1993; Ketsetzis et al., 1998).

Importance of Considering Parent and Child Gender

Chapter 2 described the range of gender differences that have been found in the ways in which children and adolescents process and respond to inter-parental conflict. It has also been suggested that boys and girls react differently to the school transition. Once in secondary school, boys and girls differ in their psychological well-being, academic

adjustment and maintenance of friendship groups with boys maintaining friendships but evidencing a decline in academic attainment whereas girls generally show improvements in academic performance but declines in psychological functioning (e.g. Hirsch & Rapkin, 1987; Pellegrini & Long, 2002). Collectively, this suggests that child gender may moderate the relationships between inter-parental conflict following school transition and externalising problems.

With regards to the role of parent gender, findings are less clear. Research that has examined cross gender effects has alluded to the fact that boys may be more likely to receive maternal hostility, coercion and inconsistent discipline strategies following inter-parental conflict (e.g. Brody, 2001; Davies & Cummings, 1994; Kaczynski, et al., 2006; Margolin, et al., 2001; Zahn-Waxler, 2000). Girls, on the other hand, are more likely to experience rejection, especially from fathers (Buehler & Gerard, 2002; McHale, 1995; Snyder, 1998; Zahn-Waxler, 2000). However, recent research has suggested that same gender parent-adolescent dyads may be more influential for behaviour problems in the context of inter-parental conflict (Kaczynski et al., 2006; Shelton & Harold, 2008). Mother-child rejection has been more strongly associated with girls' externalising problems whereas father-child rejection was found to have a stronger effect on boys' externalising problems (Kaczynski et al., 2006; Shelton & Harold, 2008). Further research is warranted to elucidate the effects of parent and child gender on the mechanisms through which inter-parental conflict is associated with externalising problems, in the context of transition into secondary school.

The Present Study

This study investigates the role of inter-parental conflict following the transition to secondary school to further understanding of the way in which inter-

parental conflict within the home environment may inform children's aggressive and antisocial behaviour at school two years later.

This study comprises two parts. First, it examines the effect of inter-parental conflict occurring in the aftermath of the transition on behavioural problems assessed two years later. A 24-month time lag was used in the present study as research has suggested that a difficult transition into secondary school can have long-term impacts affecting the successful adjustment to future transitions (e.g. Nottlemann, 1987). The primary aim of this section is to simultaneously assess the mediating role of threat and self-blame attributions with a global measure of negative parenting practices underlying links between inter-parental conflict and later externalising problems.

Second, this study explores the mediating role of cognitions pertaining to the inter-parental relationship (threat appraisals, self-blame attributions) alongside perceptions of mother- and father-child rejection. This construction of variables will provide further understanding of whether cross gender or same gender effects have a stronger relationship with behavioural problems in the context of inter-parental conflict. Both models are also analysed separately for boys and girls. This approach permits the analysis of whether inter-parental conflict is associated with girls' and boys' behavioural problems via different mechanisms.

A prospective, longitudinal design is used. This design permits the examination of change in constructs over time (externalising problems) while improving the confidence in temporal causality between the predictor and outcome (Grych et al., 2003). In addition, testing the role of initial symptom levels on adolescent appraisals allows for the test of the influence of a negative affectivity or hostile attribution bias (Harold et al., 1997; Crick & Dodge, 1994; Watson & Pennebaker, 1989). By testing the role of initial externalising problems on

adolescents' appraisals this study aims to control for a hostile attribution bias towards social interactions that may artificially inflate correlations among inter-parental conflict, appraisals and later externalising problems.

The theoretical model presented in Figure 3.1 illustrates the hypothesised pathways through which inter-parental conflict will be associated with externalising problems for the complete sample. It is hypothesised that social cognitions pertaining to inter-parental conflict as well as cognitions relating to the parent-child relationship will mediate the relationship between inter-parental conflict and externalising problems. Although previous research has found self-blame, and not parenting, to influence adjustment in the context of conflict (e.g. Harold et al., 2007), the school transition literature suggests that children making this transition may be particularly vulnerable to negative parenting practices (e.g. Day & Padilla-Walker, 2009; Dubois et al., 1994; Seidman et al., 2003). Consistent with Shelton and Harold's (2008) findings, it is hypothesised that rejecting behaviour within same gender dyads will be associated with externalising problems. Consistent with Cummings and colleagues (1994) and Grych and colleagues (2003) it is hypothesised that threat perceptions will be more salient for boys' behaviour whereas self-blame attributions will be more informative for girls' externalising problems.

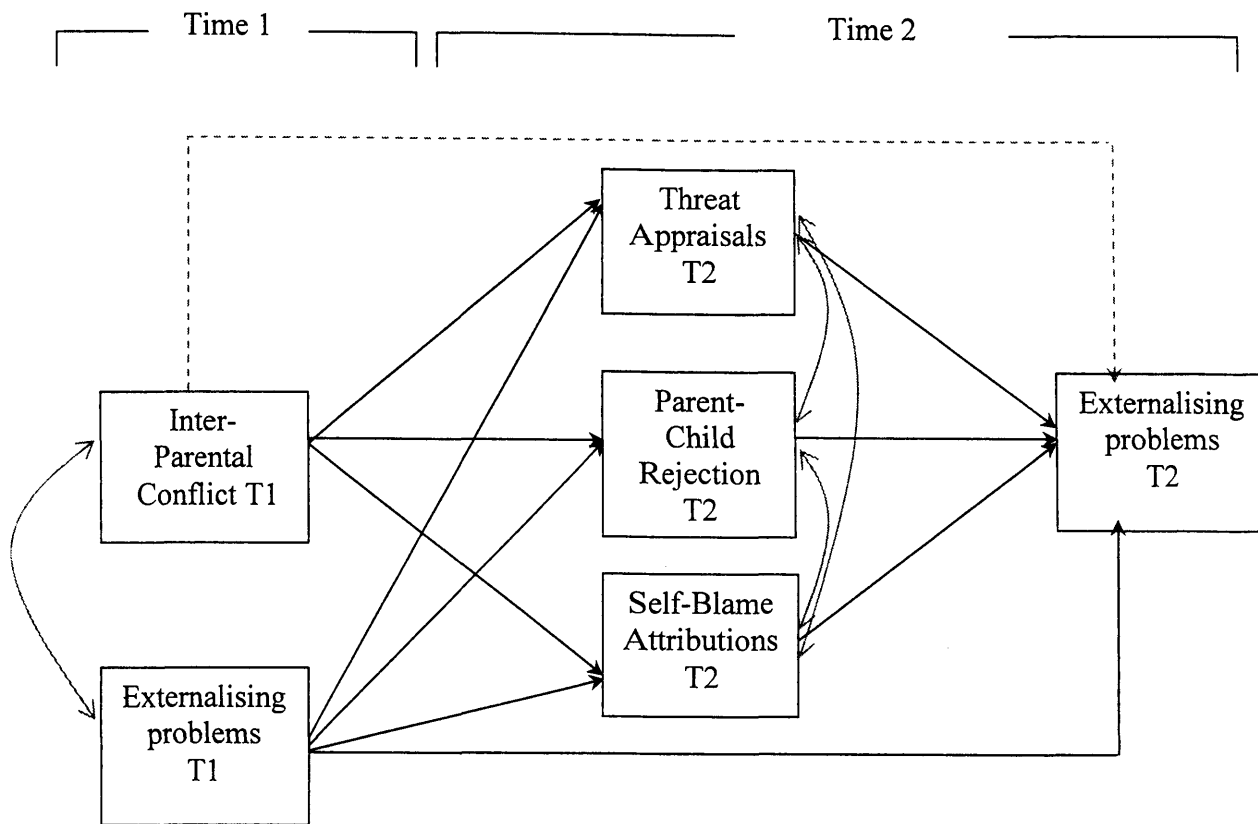


Figure 3.1: Theoretical model indicating the direct and indirect pathways linking inter-parental conflict and child adjustment

Method

Sample

The data for these analyses derive from a longitudinal study comprising of more than 500 children, their parents and teachers, living in South Wales, United Kingdom (Harold, 1999-2001, RES-000-2225-69). Schools were recruited to the study based on the economic and social conditions associated with their school catchment area or the area surrounding the school making children eligible to attend. Demographic statistics derived from the present sample suggest that the overall sample was representative of two-parent families with a school-aged child living in England and Wales with regards to family constitution, parent education and ethnic representation (Social Trends, 2002).

Because of the nature of the questions investigated in these analyses, only children who were living in a two-parent family at Time 1 (1999) were retained for the present study. 450 children of the overall sample (223 girls, 227 boys) aged between 11 and 13 years (Time 1, mean age = 11.68, $SD = .47$) and their form tutors comprised the present sample. 86.9% of the children lived with both biological parents, 11.1% lived with their biological mother and stepfather and 2% lived with their biological father and stepmother. Almost all children were white European originating from Britain (99.1%) with a small minority being of other ethnic origins such as Indian/Sri Lankan (.7%) or East African, or Jamaican (.2%).

Procedure

Following initial contact with schools, parents received a letter inviting them and their children to participate in a research project focusing on the link between everyday family life and children's development. Parents were further informed of the goals of the study at a scheduled parent-teacher evening at each school and provided written consent to participate. No payment was made to families but parents were informed that they would receive a summary booklet of key research findings upon completion of the study.

After obtaining parental consent, children completed questionnaires during the course of the normal school day in the autumn term, immediately following their transition to secondary school (Time 1, 1999). Questionnaires contained a variety of measures relating to the quality of family interactions, parent-child relations, marital conflict, children's psychological health, economic conditions and family demographics. As part of an overall debriefing, children and researchers discussed the benefits of successfully negotiating and resolving problems between individuals in a child-friendly and accessible manner. Children were encouraged to speak about how

they felt after completing their questionnaires but no children raised significant concerns following participation.

Form tutors were given questionnaires and asked to report on the psychological functioning and academic performance of each child in their class. This procedure was repeated in the autumn terms following progression to each of the next school years across the proceeding two years (2000 and 2001).

Measures

Time 1 Inter-Parental Conflict. Children completed the 17 item Conflict Properties subscale of the Children's Perception of Inter-parental Conflict scale (CPIC; Grych, Seid & Fincham, 1992) by answering questions relating to the Frequency, Intensity and Resolution of their parents' arguments. Sample questions include "I often see my parents arguing", "My parents get really angry when they argue" and "Even after my parents stop arguing, they stay annoyed with each other", respectively. Response options ranged from 1 = True, 2= Sort of True and 3 = False and questions were coded so that a high score indicated high levels of frequent, intense and poorly resolved conflict.

Two items were dropped from the Intensity subscale due to concerns raised during the process of obtaining ethical approval. These items were "My parents have broken or thrown things during an argument" and "My parents have pushed or shoved each other during an argument". The derived internal consistency was good for each scale (Time 1: Frequency $\alpha = .80$, Intensity $\alpha = .82$, Resolution $\alpha = .79$). The internal consistency was also acceptable for the composite measure of conflict properties (Time 1 $\alpha = .90$).

Time 2 Children's Appraisals of Threat and Self-Blame. Children responded to the Threat and Self-Blame subscales of the CPIC (Grych et al., 1992) to report the

extent to which they felt threatened by, or responsible for, their parents' arguments.

The 11-item threat scale includes questions that assess children's fears or worries relating specifically to the consequences of inter-parental conflict such as "When my parents argue I worry that they might split up" and their ability to cope with it such as "When my parents argue or disagree, there is nothing I can do to make myself feel better". One item (When my parents argue I am afraid one of them will get hurt) was omitted from the study due to concerns raised during the process of obtaining ethical approval. The subscale had good internal consistency ($\alpha = .84$).

The nine item Self-Blame scale assesses children's perceptions of the content of their parents' arguments by asking questions such as "My parents usually argue or disagree because of things that I do" and the extent to which they feel responsible for the arguments by asking questions such as "It is usually my fault when my parents argue". This scale also had good internal consistency in the present sample ($\alpha = .89$).

Time 2 Parent-Child Rejection

In order to capture child appraisals of hostility and rejection in the parent-child relationship, children reported on the hostile detachment and rejection they perceived to occur between themselves and their mother and father, respectively, using the eight item Hostile Detachment and seven item Rejection subscales of the Children's Report of Parent's Behaviour Inventory (CRPBI; Margolies & Weintraub, 1977). These subscales comprise the negative loadings of Factor I; the Acceptance – Rejection scale of the CRPBI, (Schludermann & Schludermann, 1983) and include questions such as 'Doesn't talk to me very much' (Hostile Detachment) and 'Gets cross and angry about the little things I do' (Rejection). Response options include 1 'True', 2 'Sort of True' and 3 'Not True' and questions were coded so that a high score indicated a high level of harsh-rejecting parenting. These subscales derived good internal consistency separately for both parents

(Hostile Detachment- mother $\alpha = .91$, father $\alpha = .89$; Rejection- mother $\alpha = .84$, father $\alpha = .84$). Children's scores for their relationship with their mother and with their father were also combined to form a composite measure of parent-child harsh rejection, ($\alpha = .95$).

Times 1 and 2 Children's Psychological Adjustment

Externalising Problems. Children's externalising problems were assessed using a composite measure of teacher reported aggression and child reported anti-social behaviour. Children's form teachers completed the 20-item aggression subscale of the Teacher Report Form (TRF) of the Child Behaviour Checklist (CBCL; Achenbach & Rescorla, 2001) which includes items such as "Gets in many fights" and "Destroys property belonging to others". Response options range from Not True = 0, Sometimes True = 1 and Very True = 2. The internal consistency estimates across the two assessments were acceptable (Time 1 $\alpha = .91$, Time 2 $\alpha = .93$).

Children reported on their antisocial behaviour by responding to the Buss and Durkee (1957) nine-item trait hostility measure of antisocial behaviour, which asks questions such as "When someone makes a rule I don't like I want to break it". Response options for this scale range from Not at all (like me) = 1 to Exactly (like me) = 5 and good internal consistency was derived at both times (Time 1 $\alpha = .82$, Time 2 $\alpha = .84$).

The composite measure of these two scales had acceptable internal consistency (Time 1 $\alpha = .90$, Time 2 $\alpha = .92$).

Missing Data Imputation

Ten per cent of the original sample was excluded based on the fact that they resided in a family type other than two-parent (i.e. single parent-headed family). Missing Value Analysis (MVA) was then conducted on the remaining data set (N=450), which showed that a maximum of 10 % of the child reported data were missing across study constructs while a maximum of 18% of teacher-reported data were missing.

Using listwise deletion to deal with the missing data would have retained a sample size of 364 participants. However, deletion methods of handling missing data are no longer considered acceptable if the missing values do not meet Missing Completely At Random (MCAR) assumptions (Acock, 2005) as these methods can increase standard errors due to the way they decrease sample size and statistical power (Kang, Zhu, Tudor-Locke & Ainsworth, 2005). Moreover, Little's MCAR tests revealed that the missing data were not missing completely at random for the present sample.

Data were largely missing at random (MAR) within the child-reported variables, as is the case in most family studies (Acock, 2005). Further investigation illustrated that there was no systematic pattern to the missingness of the few variables that did not meet MAR assumptions. Demographic variables including family type, child ethnicity, age and gender did not explain the missingness, nor were any factors relevant to children's behaviour associated with the missing teacher reported data. As a result of the percentages and patterns of missingness, it was considered that the data were suitable for missing data imputation (Levine Coley, Votruba-Drzal & Schindler, 2008) using a Maximum Likelihood (ML) approach (Roth, 1994).

Missing data were imputed using Expected Maximisation (EM) in SPSS. This is a ML approach, which assumes the missing data meets MAR assumptions and uses an iterative procedure to create a single data set with no missing values. This process is based on observed relationships between variables and produces a less biased estimate of parameters when the data is MAR than deletion methods or other forms of single imputation such as mean substitution (Acock, 2005; Fox-Wasylyshyn & El-Masri, 2005).

Single imputation has been criticised as being a less than optimal method of dealing with missing data (Acock, 2005). However, several forms of single imputation have been employed successfully in recent family studies (i.e. Levine Coley et al., 2008; McClelland,

Acock & Morrison, 2006). In addition, to ensure that the findings of the present study were not an artefact of the method of data imputation employed, the theoretical model was also tested using listwise deletion and the pattern of results was the same.

Results

Preliminary Analyses

Means and Standard Deviations for all study variables are presented in Table 3.1 for the combined sample and for boys and girls separately. *T* test results are also included to show differences between boys' and girls in mean values of all theoretical constructs. Table 3.1 shows significant differences in the mean levels of boys' and girls' externalising problems at Time 1 ($t(448) = 4.20, p < .01$) and Time 2 ($t(448) = 3.70, p < .01$) with higher mean values for boys than girls. There was also a trend like difference in girls and boys levels of threat appraisals ($t(448) = -1.92, p < .10$) with marginally higher mean level for girls than boys.

*Table 3.1: Means, Standard Deviations and *t* test results for all Study Variables.*

Variable	Combined		Boys		Girls		<i>t</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
Time 1 (1999)							
1. Inter-Parental Conflict	26.61	7.17	26.11	6.81	27.11	7.50	-1.49
2. Externalising Problems	24.10	7.38	25.52	7.23	22.65	7.27	4.20**
Time 2 (2001)							
3. Threat Appraisals	17.75	4.59	17.34	4.44	18.16	4.72	-1.92 ^a
4. Harsh-Rejecting Parenting	41.81	11.08	41.19	10.36	42.44	11.75	-1.21
5. Mother-Child Harsh-Rejection	20.50	5.85	20.28	5.26	20.73	6.40	-0.82
6. Father-Child Harsh-Rejection	21.31	6.17	20.91	5.82	21.72	6.50	-1.39
7. Self-Blame Attributions	12.49	3.72	12.76	3.64	12.23	3.80	1.50
8. Externalising Problems	24.88	7.06	26.12	7.18	23.63	6.72	3.80**

*Note: Combined N = 450, Girls' N = 223, Boys' N = 227; ** $p < .01$, ^a $p < .10$*

Preliminary analyses of levels of externalising problems within the sample

As externalising problems were the focus of this research and measured at both time points of the analysis to assess change over time, preliminary analyses were conducted to explore the range in problems across the sample as well as to investigate change in levels of problems between Time 1 and 2.

The TRF can yield scores in the range of 0-40. The present sample included adolescents who received a range of scores covering almost the full range of aggressive behaviour. At Time 1 63% of the sample, comprised of 119 boys and 164 girls, were rated as 0 by their teachers. 1.7% (5 boys and 3 girls) received a score of between 10 and 16 indicating that they were borderline, or approaching borderline, clinical range of aggressive behaviour, whilst 1.3% of the sample (4 boys and 2 girls) received scores of between 17 and 33 placing them in the clinical range of school based aggressive behaviour. As such, 34% of the sample, comprised of 99 boys and 54 girls, received scores of between 1- 9 placing them in the normal range of aggressive behaviour.

At time 2 the pattern of behaviour is largely the same with 50% (104 boys and 123 girls) scoring 0 and 45.3% (111 boys and 91 girls) scoring between 1 and 9 in the normal range of aggressive behaviour. 2% of the sample (5 boys and 4 girls) received a score of between 10 and 16 indicating that they were borderline, or approaching borderline, clinical range of aggressive behaviour, whilst 2.7% of the sample (7 boys and 5 girls) received scores of between 17 and 33 placing them in the clinical range of aggressive behaviour. Results show a slight increase in the number of young adolescents, who moved into the clinical range, and the maximum score slightly increased from 33 -37 from Time 1 to Time 2, however, the patterns of ranges of behaviour are largely similar across time and typical of a community sample.

Finally, a paired samples *t* test was conducted on T1 - T2 externalising problems and indicated a significant increase in levels of behaviour problems across time ($t(449) = -2.34, p < .05$).

Table 3.2 illustrates the inter-correlations between all study constructs for the combined sample. Tables 3.3 and 3.4 (see Appendix 1) illustrate the inter-correlations separately for boys and girls respectively.

Study Variable	1	2	3	4	5	6	7	8
Time 1 (1999)								
1. Inter-Parental Conflict	-							
2. Externalising Problems	.31**	-						
Time 2 (2001)								
3. Appraisals of Threat	.33**	.03	-					
4. Harsh-Rejecting Parenting	.35**	.16**	.42**	-				
5. Mother-Child Harsh-Rejection	.33**	.15**	.37**	.92**	-			
6. Father-Child Harsh-Rejection	.31**	.13**	.40**	.93**	.70**	-		
7. Self-Blame Attributions	.17**	.14**	.42**	.48**	.46**	.43**	-	
8. Externalising Problems	.25**	.51**	.20**	.30**	.27**	.28**	.30**	-

*Table 3.2: Inter-correlations between all Study Variables for the combined sample, N = 450. Note: ** $p < .01$; Variable 4 is a composite of 5 and 6*

Family Functioning

As shown in Table 3.2, inter-parental conflict at Time 1 was positively associated with the five hypothesised mediating variables at Time 2 (Threat appraisals $r = .33, p < .01$; Harsh-rejecting parenting $r = .35, p < .01$; Mother-child rejection $r = .33, p < .01$; Father-child rejection $r = .31, p < .01$; Self-blame attributions $r = .17, p < .01$). These constructs were positively associated with each other within time.

Specifically, threat appraisals at Time 2 were positively associated with harsh-rejecting parenting ($r = .42, p < .01$) mother-child rejection ($r = .37, p < .01$), father-child rejection ($r = .40, p < .01$) and self-blame attributions ($r = .42, p < .01$). Self-blame attributions were positively correlated with harsh rejecting parenting ($r = .48, p < .01$), mother-child rejection ($r = .46, p < .01$) and father-child rejection ($r = .43, p < .01$) and mother and father-child rejection were positively associated ($r = .70, p < .01$).

Inter-parental conflict at Time 1 was positively associated with externalising problems at Time 1 ($r = .31, p < .01$), and Time 2 ($r = .25, p < .01$). All five hypothesised mediating variables were moderately and positively correlated with Time 2 externalising problems ($r = .20 - r = .30, p < .01$).

Gender Differences

Correlations were conducted separately for boys (see Table 3.3 in Appendix 1) and girls (see Table 3.4 in Appendix 1) and Fisher's r to z transformation procedure was carried out to test for significant differences in the magnitude of correlation coefficients.

Patterns of effects for correlations were largely the same for boys and girls with associations between inter-parental conflict, cognitions and externalising problems ranging from small to moderate in magnitude (boys $r = .14, p < .05$ to $r = .45, p < .01$; girls $r = .12, p > .10$ to $r = .55, p < .01$). Fisher's transformation procedure of r demonstrated three significant differences between boys and girls correlations. The association between inter-parental conflict and mother-child rejection ($r\Delta = -.22, z = -2.56, p < .05$), between mother-child rejection and self-blame ($r\Delta = -.18, z = -2.41, p < .05$), and between mother-child rejection and externalising problems ($r\Delta = -.17, z = -1.96, p < .05$) were all significantly stronger for girls than boys.

*The Mediating Role of Adolescents' Social Cognitions Pertaining to Family Relations
in the Relationship Between Inter-Parental Conflict and Externalising Problems*

Structural Equation Modeling (SEM; LISREL 8.50; Joreskog & Sorbom, 1996) using maximum likelihood estimation was used to test the empirical validity of the proposed theoretical model (see Figure 3.1).

The relationship between inter-parental conflict and externalising problems assessed 24 months later was tested, controlling for initial levels of adjustment problems. Traditional model tests for mediation specify that there must first be a significant direct effect between the independent and dependent variable. This association must become non-significant when tested alongside an indirect pathway comprising of significant associations between the independent and mediator variables and between the mediator and dependent variables (Baron & Kenny, 1986). However more recent research has suggested that indirect effects from an independent to a dependent variable can be accurately tested when there is no significant direct association but when both the independent and dependent variables are significantly correlated with a third intervening variable (Mackinnon, Lockwood, Hoffman, West & Sheets, 2002).

The second stage of analysis therefore tested for the mediating roles of cognitions in the case of initial direct effects between inter-parental conflict and externalising problems. Indirect effects were tested when significant associations were only present between the independent and intervening variables and between the intervening and dependent variables.

Figure 3.2 illustrates relationships between Time 1 inter-parental conflict and Time 2 cognitions pertaining to the inter-parental and parent-child relationships and externalising behaviour. Figure 3.3 illustrates relationships between Time 1 inter-parental conflict and Time 2 cognitions about the inter-parental, mother-child and father-child relationships and externalising behaviour.

Inter-Parental Conflict and Externalising Problems: Perceptions of Threat, Parent-Child Rejection and Self-Blame

Initial tests of the direct effect between inter-parental conflict at Time 1 and externalising behaviour at Time 2 was significant when earlier levels of externalising problems were controlled ($\beta = .10, p < .05$). However, when the full model was tested (Figure 3.2), this pathway was reduced to non-significance ($\beta = .01, p > .10$), indicating full mediation according to the criteria set out by Baron and Kenny (1986). Inter-parental conflict was directly associated with harsh-rejecting parenting ($\beta = .33, p < .01$) which was, in turn, associated with externalising problems ($\beta = .13, p < .05$). This pathway also formed a significant indirect path from inter-parental conflict to externalising problems ($\beta = .03, p < .05$). Inter-parental conflict was also significantly associated with self-blame attributions ($\beta = .14, p < .05$) which were in turn, associated with externalising problems ($\beta = .15, p < .05$) although this did not form a significant indirect effect ($\beta = -.01, p > .10$).

Inter-Parental Conflict and Externalising Problems: Perceptions of Threat, Mother-Child Rejection, Father-Child Rejection and Self-Blame

As in Figure 3.2, the initial direct effect between Time 1 inter-parental conflict and Time 2 externalising problems was reduced from significance ($\beta = .10, p < .05$), to non-significance when the full model was tested (Figure 3.3; $\beta = .01, p > .10$), indicating full mediation. Inter-parental conflict was associated with father-child harsh rejection ($\beta = .30, p < .01$) which was, in turn, associated with externalising problems ($\beta = .11, p < .05$), although this was not a significant indirect effect ($\beta = .01, p > .10$). Inter-parental conflict was also directly associated with self-blame attributions ($\beta = .14, p < .05$), which in turn, were associated with externalising problems ($\beta = .15, p < .05$) but this pathway did not form a significant indirect effect ($\beta = -.01, p > .10$).

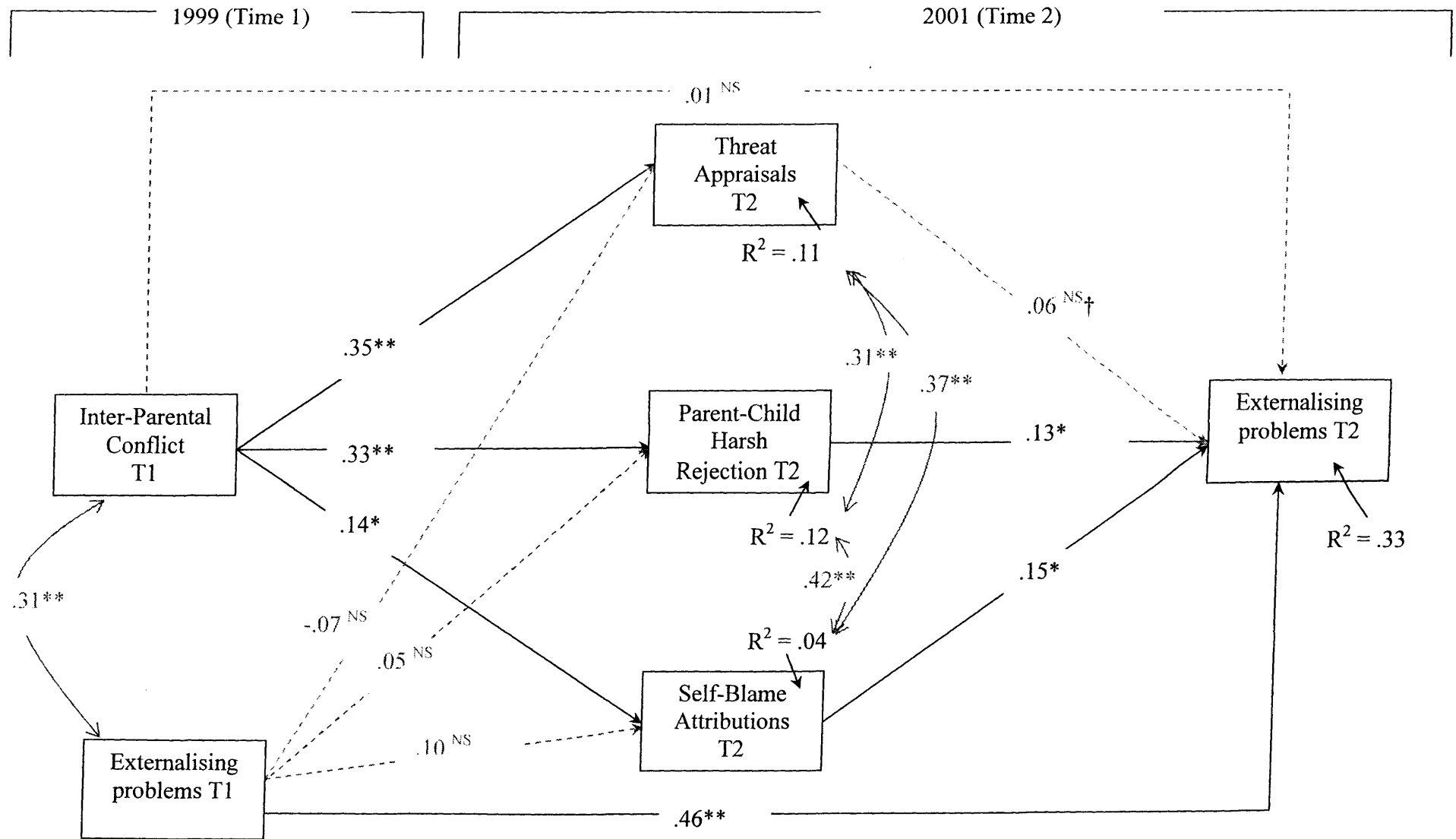


Figure 3.2: Maximum likelihood estimation of inter-parental conflict, adolescent cognitions of family relations and externalising problems for the combined sample. ^{NS} Non-Significant * $p < .05$, ** $p < .01$, † pathway moderated by gender

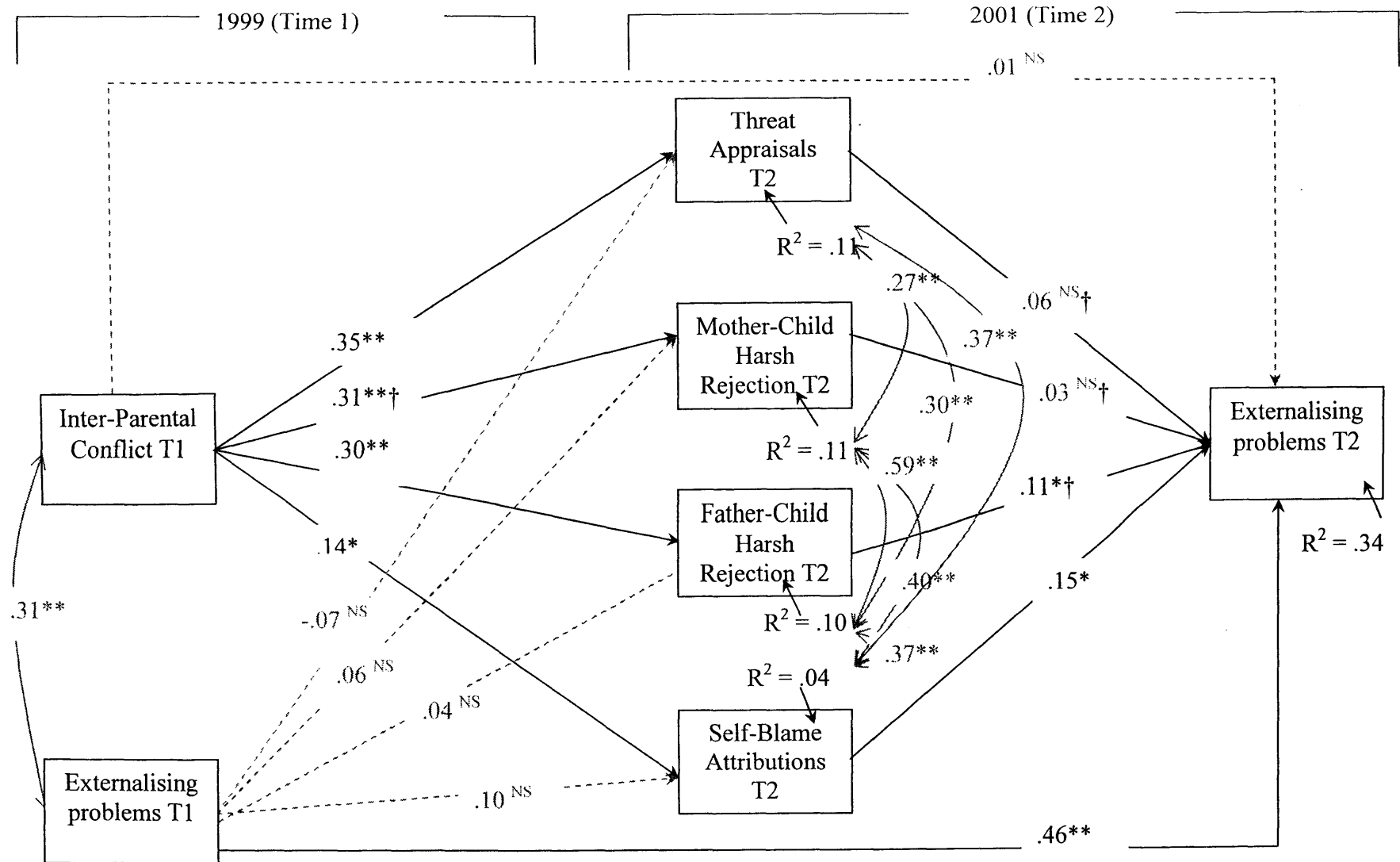


Figure 3.3: Maximum likelihood estimation of inter-parental conflict, adolescent cognitions of family relations including split-gender parenting and externalising problems for the combined sample. NS Non-Significant * $p < .05$, ** $p < .01$, † pathway moderated by gender

Gender Differences and Tests of Moderation

The relationships identified in Figures 3.2 and 3.3 were also estimated for boys and girls separately (see Figures 3.4 and 3.5 in Appendix 2). Analysis followed guidance by Ping (1998) for examining interaction variables using stacked procedures in structural equation modelling (SEM). Models were estimated using maximum likelihood estimation in LISREL 8.50 (Jöreskog & Sörbom, 1996). Subgroup comparison tests using stacked modelling procedures were employed to consider whether the magnitude of parameter estimates in each model were significantly different for boys and girls. Constraining the model coefficients to be equal between subgroups provides a chi-square statistic, which, if significant, indicates a difference in the magnitude of the coefficient between the groups. Samples of 100 cases per subgroup are regarded as a minimum sample size for such tests and these criteria were met (Ping, 1998).

There was a non-significant direct effect between Time 1 inter-parental conflict and Time 2 externalising problems for boys ($\beta = .11, p > .10$) and girls ($\beta = .11, p > .10$). Indirect effects could therefore be tested according to the criteria outlined by Mackinnon and colleagues (2002) as inter-parental conflict was significantly associated with several of the proposed intervening variables, which in turn, were associated with externalising problems.

Inter-Parental Conflict and Externalising Problems: Perceptions of Threat, Parent-Child Rejection and Self-Blame

Harsh rejecting parenting linked inter-parental conflict to externalising problems for boys ($\beta = .26, p < .05, \beta = .19, p < .05$; indirect effect $\beta = .02, p > .10$) and girls ($\beta = .38, p < .01, \beta = .13, p < .05$; indirect effect $\beta = .05, p < .05$) but for boys there was also an indirect path from inter-parental conflict to externalising problems via

threat appraisals ($\beta = .35, p < .01, \beta = .19, p < .05$) which was significant ($\beta = .05, p < .05$). Conversely for girls, there was an indirect path from inter-parental conflict to externalising problems via self-blame attributions ($\beta = .19, p < .05, \beta = .15, p < .05$) but this was not a significant indirect effect ($\beta = -.01, p > .10$). Despite these differences, stacked model comparisons of each parameter by subgroup revealed only one pathway that was significantly different for boys and girls. The pathway from threat appraisals to externalising problems was significant for boys ($\beta = .19, p < .05$) but not girls ($\beta = -.06, p > .10; \Delta\chi^2(1) = 6.32, p = .01$).

Inter-Parental Conflict and Externalising Problems: Perceptions of Threat, Mother-Child Rejection, Father-Child Rejection and Self-Blame

For boys, inter-parental conflict had a significant indirect effect on externalising problems via threat perceptions ($\beta = .35, p < .01, \beta = .17, p < .05$; indirect effect $\beta = .04, p < .05$) and a marginally significant indirect effect through father-child harsh rejection ($\beta = .28, p < .01, \beta = .31, p < .05$; indirect effects $\beta = .03, p < .10$). For girls, inter-parental conflict had an indirect effect via self-blame attributions ($\beta = .19, p < .05, \beta = .18, p < .05$; indirect effect $\beta = -.02, p > .10$) and a marginally significant indirect effect via mother-child harsh rejection ($\beta = .39, p < .01, \beta = .16, p < .05$; indirect effects test $\beta = .03, p < .10$). Four of these pathways were significantly different for boys and girls. The path between inter-parental conflict and mother-child rejection was significant for boys and girls but stronger for girls ($\beta = .39, p < .01$) compared to boys ($\beta = .20, p < .05; \Delta\chi^2(1) = 5.88, p < .05$). The path between mother-child rejection and externalising problems was significant for girls ($\beta = .16, p < .05$) but not boys ($\beta = -.15, p > .10; \Delta\chi^2(1) = 7.12, p < .01$). The path between threat appraisals and externalising problems was significant for boys ($\beta = .17, p < .05$) but not girls ($\beta = .06,$

$p > .10$; $\Delta\chi^2(1) = 5.37, p < .05$). Finally, the path between father-child rejection and externalising problems was significant for boys ($\beta = .31, p < .05$) but not girls ($\beta = .00, p > .10$; $\Delta\chi^2(1) = 8.44, p < .01$).

Discussion

The present study tested the direct and indirect effects of inter-parental conflict occurring in the immediate aftermath of the transition into secondary school on externalising problems 24 months later, while controlling for initial symptom levels. A specific aim of this study was to consider whether inter-parental conflict was associated with externalising problems via adolescent cognitions pertaining to the inter-parental compared to cognitions pertaining to the parent-child relationship. Results indicated that when inter-parental conflict occurred with adjustment in the first term of secondary school, *both* forms of social cognition were important for understanding variation in adolescents' school-based externalising problems.

Inter-Parental Conflict and Externalising Problems: Mediating Roles of Threat Appraisals, Parent-Child Harsh Rejection and Self-Blame Attributions and the Moderating Roles of Gender

In the present study, the relationship between inter-parental conflict and externalising problems was mediated by *both* parenting behaviours and responsibility attributions. The results provide support for the conclusion that self-blame is a consistent predictor of adolescents' behavioural reactions to inter-parental conflict (e.g. Ablow et al., 2009; Fear et al., 2009; Fosco & Grych, 2007; Grych et al., 2003; McDonald & Grych, 2006). However, it furthers these findings by also illustrating the importance of adolescent perceptions of parent-child rejection. Although parenting

has been described as the key feature of family relations for orienting transition adjustment (e.g. Bronstein et al., 1993; Dubois et al., 1994; Seidman et al., 2003) it has not been studied in the context of inter-parental conflict. This study suggests that having to adjust to a transition into secondary school may leave adolescents particularly vulnerable to the stress associated with both inter-parental conflict (e.g. Grych & Fincham, 1990) and a decline in the quality of parent-child relations (e.g. Bronstein, et al., 1993; Day & Padilla-Walker, 2009; Dubois et al., 1994; Ketsetzis, et al., 1998; Seidman et al., 2003). In addition, negative transition effects are typically relatively short-lived with the majority of adolescents adjusting to their new school within a year of being there (e.g. Anderson et al., 2000; Ward, 2000). However, these findings imply that having to cope with inter-parental conflict in addition to having to adjust to the new school environment is associated with increased risk of developing externalising problems that persist beyond the transition year and throughout the lower secondary school years.

Gender Differences

When analysed separately for boys and girls, both cognitions about the inter-parental and parent-child relations remained significant but there were distinct gender differences. Consistent with previous research, threat appraisals predicted boys' whereas self-blame attributions predicted girls' externalising problems (Cummings et al., 1994; Davies & Lindsay, 1994; Grych et al., 2003). This finding offers some support for the theory that boys are more likely to be concerned with threats to their sense of agency in the context of conflict whereas girls will be more likely to make responsibility attributions for the cause and resolution of conflict (e.g. Cummings et al., 1994; Davies & Windle, 1997; Kerig, 1998 a,b; Zahn-Waxler, 2000).

However, inter-parental conflict was also associated with externalising problems via parent-child harsh rejection for girls and boys. The fact that parent-child harsh rejection was significantly linked to boys' and girls' externalising problems is somewhat inconsistent with traditional gender stereotyped behaviour. Adolescent girls have been reported to develop stronger family ties and interest in inter-personal relationships than boys (Brody, 2001; Davies & Lindsay, 2004). In the present study, boys and girls seem equally affected by parent-child relationships. It is possible that, following transition to secondary school, boys may still desire close inter-personal relationships and it may not be until later in adolescence when they strive for Brody's (2001) definition of de-identification with the family to maintain a masculine identity.

When parent-child rejection was separated by parent gender, results provided further insight into the pathways through which inter-parental conflict was associated with boys' and girls' externalising problems. For boys, inter-parental conflict was associated with externalising problems via threat appraisals and father-child rejection. For girls, inter-parental conflict was associated with externalising problems via self-blame attributions and mother-child rejection. For understanding variation in boys' and girls' behavioural problems in the context of inter-parental conflict, perceptions of threat and self-blame, respectively, are clearly important (e.g. Cummings et al., 1994; Davies & Lindsay, 1994; Grych et al., 2003). However, this study also demonstrated that father-child rejection was predictive of boys externalising problems whereas mother-child rejection was predictive of girls externalising problems. The fact that father-child rejection is uniquely predictive of boys' behaviour problems, over and above threat perceptions and initial symptom levels, supports the argument that father behaviour is important for shaping adolescent boys' development (e.g. Smetana et al., 2006; Kaczynski, et al., 2006; Nelson & Coyne, 2009; Webster-Stratton et al., 2001).

Similarly, the unique association between mother-child rejection and girls' behavioural problems supports research suggesting that girls are particularly vulnerable to disruption in the mother-child relationship during early adolescence (e.g. Shelton & Harold, 2008; Smetana et al., 2006).

Limitations

A strength of the present study was employing a longitudinal design in which inter-parental conflict and cognitions were separated by a twenty-four month period. However, the concurrent assessment of adolescent appraisals and behaviour problems makes it difficult to infer a direction of effects operating between the two constructs. Related research has demonstrated that inter-parental conflict predicted cognitions measured at a later time point, over and above initial symptom levels and cognitions. Appraisals, in turn predicted concurrent indices of adjustment (Grych et al., 2003). In addition, including pathways between initial symptom levels and appraisals and later behaviour suggest that the significant pathways from cognitions to externalising problems illustrate a change in behaviour. This supports the hypothesis that appraisals are a mechanism through which inter-parental conflict can inform behavioural problems (e.g. Grych et al., 2003).

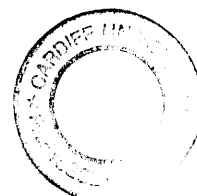
With the exception of one index of behaviour problems, a second limitation was a reliance on children's reports of study constructs. This may have artificially inflated some of the associations identified within and across time. However, this study was specifically interested in adolescents' perceptions of their home environment, as it is adolescents' cognitions that play a significant role in orienting their responses and adjustment (e.g. Crockenberg & Forgays, 1996; Grych et al., 2003). Moreover, initial symptom levels were controlled to test the role of hostile attribution bias in inflating associations between adolescents' appraisals of conflict

and their subsequent cognitions about its content and parent-child relationships (Grych et al., 2003; Harold et al., 1997). Research has also shown that parent and child reports for the constructs measured in this study, with the exception of parent-child rejection, are correlated and produce similar patterns of effects, reducing concern that these results are simply a product of method variance (Grych et al., 2003; Walper & Schwarz, 2001).

The final limitation to note relates to the continuity between the aims of studying the effects of school transition with the actuality of studying relationships between inter-parental conflict and externalising problems with a post-transition sample. It has been suggested that having to cope with multiple stressors across multiple domains, especially during a period of transition, is likely to leave young adolescents vulnerable to adjustment problems (e.g. Grych & Fincham, 1990; Rutter, 1979). While this concept has been explored in the present study by testing the role of inter-parental conflict that occurs while adolescents are having to adjust to secondary school, the effects of conflict occurring during children's preparations to make the transition has not been addressed. Testing the immediate period of adjustment following the transition gives a clear indication of adaptation success and informs the context of understanding variation in both long and short-term school based functioning resulting from a major developmental transition (Anderson et al, 2000; Nottlemann, 1987; Ward, 2000). However, the lack of pre-transition data for this sample represents a caveat of this study. In order to more fully understand the impact of inter-parental conflict on adolescent school-based adjustment, *during* the transition to secondary school, relationships between pre-transition conflict and post-transition adjustment should be tested. This is a limitation that is addressed in Chapter 4.

In summary, this prospective, longitudinal study advances current research by investigating the relationship between inter-parental conflict occurring immediately following a major developmental transition and later externalising problems. Within this developmental context, it appears that adolescent cognitions pertaining to the parent-child relationship are as important for understanding externalising problems as cognitions about the inter-parental relationship. For the combined sample, it is self-blame attributions, alongside indices of parenting, that consistently link inter-parental conflict with later externalising problems. There are distinct gender differences such that threat appraisals predict boys' externalising problems and self-blame attributions predict girls' externalising problems. Same gender parent-child dyads also appear more important than cross-gender dyads, for predicting externalising problems in the context of inter-parental conflict occurring in the 1st term following the transition to secondary school.

These findings are noteworthy in light of the small but emerging body of evidence that suggests cognitions pertaining to the inter-parental relationship have stronger associations with adjustment than perceptions of the parent-child relationship, when effects are estimated simultaneously. It has been suggested that these findings are a product of a) the behavioural outcome assessed and b) the timing at which inter-parental conflict is measured. The transition to secondary school may lead to the autonomy desired during early adolescence (e.g. Allen & Land, 1999; Eccles et al., 1993; Hill & Tyson, 2009; Lord et al., 1994) being temporarily attenuated by the emotional support required during this transition (e.g. Dubois et al., 1994; Seidman et al., 2003). To test these theories, Chapter 4 will examine the role of inter-parental conflict occurring prior to the transition on externalising problems and on indices of specific school-based adjustment following the transition.



CHAPTER 4

Introduction

Chapter 3 concluded that inter-parental conflict that co-occurs with the transition to secondary school is associated with later externalising problems via cognitive appraisals pertaining to both the conflict and the parent-child relationship. Consistent with previous research, self-blame attributions, rather than threat appraisals, predicted early adolescent externalising problems when these effects were assessed simultaneously (e.g. Grych et al., 2003, Ghazarian & Buehler, 2010).

This chapter seeks to further these findings by bridging the school transition literature with family processes literature. It considers the role of children's cognitions pertaining to family relations in linking inter-parental conflict occurring prior to the school transition with behavioural and school-specific adjustment following the transition. This chapter will investigate relationships between inter-parental conflict and cognitions about the conflict and parent-child relations prior to the transition with indices of pre- and post-transition adjustment. In contrast to Chapter 3, which used a sample of children who had just started secondary school, this chapter will examine effects as children make the transition from primary to secondary school. This will enable consideration of the roles of indices of school specific adjustment, including transition anxiety and transition adaptation, in explaining the link between disruption in family relations occurring prior to the school transition and adjustment problems following the transition.

The Importance of Testing Relationships in the Context of the Transition From Primary to Secondary School

As stated in Chapter 1, the transition from primary (or elementary) school to secondary (or high) school is a period of normative stress that all children experience

and has been described as a particularly pervasive stage (Anderson et al., 2000; Bronfenbrenner, 1979; Roeser & Eccles, 1998). It involves disruption or changes to several aspects of children's routines. These changes have been found to occur most notably within the physical and social environment of the school including lesson structure (Delamont & Galton, 1986; Galton, Morrison & Pell, 2000; Wigfield, McIver, Reuman & Midgley, 1991), class size (Blyth, Simmons & Carlton-Ford, 1983; Harter, Whitesell & Kowalski, 1992; Roderick & Camburn, 1999), peer relationships (Pellegrini & Long, 2002; Pratt & George, 2005) and the quality of student-teacher relationships (e.g. Eccles et al., 1993; Feldlaufer, Midgley & Eccles, 1988; Fergusson & Fraser, 1999).

As a result of these changes the transition process has been described as a source of stress and anxiety that has been consistently associated with declines in scholastic ability. Research has demonstrated declines in children's perception of their work performance, social interaction abilities (e.g. Nottlemann, 1987), scholastic motivation (Delamont & Galton, 1986; Galton et al., 2000; Wigfield et al., 1991) and academic achievement (Alspaugh, 1998; Blyth et al., 1983; Isakson & Jarvis, 1999) across this period of transfer. Studies have also found that children's reports of somatic complaints and school absences increase between primary and secondary school (e.g. Felner, Primavera & Cauce, 1981; Hirsch & Rapkin, 1987).

The process of school transition has been linked to changes in children's psychological well-being, although these findings are less consistent than those for scholastic attainment. Several studies have identified self-esteem, internalising symptoms and externalising problems as consistently vulnerable to change across this transition but the nature of this change varies across studies. Some studies have found adjustment problems to decrease (e.g. Lohaus, Elben, Ball & Klein-Hessling, 2004),

while others have found an increase (e.g. Wigfield et al., 1991), especially in aggression (e.g. Pellegrini, 2002; Pellegrini & Bartini, 2000). Other studies have reported mixed results (e.g. Wallis & Barrett, 1998) and others still have highlighted gender differences such that boys evidence declines in aggression, depressive, anxious and somatic symptoms whereas girls evidence increased symptoms (e.g. Hirsch & Rapkin, 1987). It is clear transition is associated with change in child adjustment but it is less clear whether the change is characterised by a decline or increase in levels of psychological adjustment.

From reviewing the literature it appears that this inconsistency could be a function of the variation in the index of adjustment measured. Self-esteem or self-concept has been frequently assessed and consistently found to decline in the initial post-transition year (e.g. Cantin & Boivin, 2004; Wigfield & Eccles, 1994; Wigfield et al., 1991). However, indices of behavioural and emotional adjustment appear to have been studied less frequently and seem to yield mixed findings (e.g. Hirsch & Rapkin, 1987; Lohaus et al., 2004; Pellegrini et al., 2000, 2002; Wallis & Barrett, 1998). This could be due to the fact that many studies assessing the impact of school transition largely consider factors related to the school such as class climate (e.g. Feldlaufer et al., 1988) or internal to the child such as self-regulation (e.g. Rudolph, Lambert, Clark & Kurlakowsky, 2001) to account for changes in child adjustment. Factors more integral to the family climate are rarely considered. This is a limitation of existing work that will be addressed in the present study.

The Association Between Family Relations and Child Adjustment During School Transition

Research has suggested that when the family environment is unsupportive of the child's changing emotional, developmental and academic needs then the transition

to secondary school will be more turbulent than when the home is calm and cohesive (e.g. Noyes, 2008). Little research has been conducted to examine how links between inter-parental conflict and child adjustment unfold during specific developmental transitions such as the transition from primary to secondary school. Moreover, no research has systematically tested relations between children's cognitions pertaining to inter-parental conflict prior to the transition with their school-based adjustment following it.

As discussed in previous chapters, during times of transition adaptation in family functioning can lead to vulnerabilities within the family system in terms of declines in communication and closeness which may be illustrated by the reported increases in couple and parent-child conflict that occur around this transition (e.g. Eccles et al., 1993; Grolnick, Price, Beiswenger & Sauk, 2007; Harold et al., 2001). Despite increases in family conflict being described as fairly normative during early adolescence and the transition to secondary school, (Smetana et al., 2006) they are often accompanied by perceived declines in support, warmth and closeness in the parent-child relationship at a key time in child development (e.g. Furman & Buhrmester, 1992; McGue et al., 2005).

Declines in support, positive communication and interaction have been associated with declines in children's well-being across the transition. For example, prior to the move, if children perceive reduced parental involvement or increased daily hassles, such as conflict with their parents, they are likely to evidence declines in self-esteem following the transition (Seidman et al., 2003). Similarly, high levels of parent-child rejection prior to the transition have been linked with declines in academic performance and increased school absence in secondary school (Dubois et al. 1994).

Current research that has considered the impact of family relations on child adjustment following transition has largely focused on the parent-child relationship rather than the inter-parental relationship. Parenting behaviours including support, facilitation of child autonomy, conflict, rejection and hostility have all been identified as factors accounting for variation in children's ability to successfully adjust to the transition (e.g. Bronstein et al., 1993; Dubois et al., 1994; Eccles et al., 1993; Lamborn, Dornbusch & Steinberg, 1996; Lord et al., 1994; Ketsetzis et al., 1998; Seidman, et al., 2003).

While this research demonstrates a link between disruption in family relations and child school-based adjustment, it does not consider it within the broader context of the whole family climate. Consistent with a family systems perspective and findings of the family wide model, considering, parenting in the context of inter-parental conflict is likely to explain adjustment during transition more thoroughly than examining either construct in isolation. Parenting behaviours identified in the transition literature are also the behaviours that appear to most consistently mediate the relationship between inter-parental conflict and externalising problems (e.g. Buehler and colleagues, 2002, 2006, 2008; El-Sheikh & Elmore-Staton, 2004; Harold and colleagues, 1997; Ketsetzis et al., 1998; Shelton & Harold, 2008; Putnick et al., 2008). Collectively these studies suggest that inter-parental conflict will increase the risk of children experiencing an unsuccessful transition and manifesting externalising problems in secondary school via two pathways. Based on Chapter 3 and previous research, the presence of conflict is likely to be associated with children's deleterious cognitive appraisals about the conflict. However, it is also likely to spill over to reduce the quality of the parent-child relationship and increase children's exposure to negative parenting practices such as, hostility and rejection, which are associated with

increased externalising problems and impair children's ability to successfully make the transition.

Parenting affecting school transition experience has not previously been explored in the context of inter-parental conflict. It is difficult to infer whether children's perceptions of the inter-parental and parent-child relationship will be directly associated with post-transition adjustment or will affect the experience of the transition process which will in turn predict externalising problems. This is a question that will be addressed in the present study to further understanding of how and why family relations explain variation in children's adjustment to school transition.

The Present Study

This study aims to further the understanding of the mechanisms through which inter-parental conflict is associated with children's school-based adjustment during the transition from primary to secondary school. It seeks to build upon the findings of Chapter 3 and school transition literature that has identified aspects of family functioning as key to understanding children's adaptation to this transition. Analyses are conducted in several stages. First the model tested in Chapter 3 is reanalysed with a younger group of children to assess the role of inter-parental conflict, which occurs in the school year preceding the transition, in levels of externalising problems measured in the first year of secondary school.

Second, the role of increased anxiety about making the transition is conceptualised as an adjustment outcome and relationships between inter-parental conflict and children's cognitions about family relations with transition-related anxiety are tested. Pathways are then estimated between pre-transition anxiety and post-transition externalising problems, including a pathway from self-blame attributions

directly to externalising problems, to further understand the within-child processes that explain the link between pre-transition distress within family relations and post-transition externalising problems in secondary school.

Finally, the model is tested with pathways linking to both behavioural and scholastic adjustment within secondary school to identify the role of cognitions pertaining to family relations play in orienting indices of pre and post-transition adjustment in the context of inter-parental conflict.

Consistent with existing literature that highlights the need to employ a longitudinal design when assessing links between family functioning and child adjustment (e.g. Collins et al., 2000; Cummings & Davies, 2002; Harold et al., 1997; van Goozen et al., 2007) the present study employs both a cross sectional and a prospective, longitudinal approach including measures of initial behaviour problems. This design permits the examination of change in constructs over time while improving the confidence in the conclusion of temporal causality between the predictor and outcome (Grych et al., 2003) while also controlling for a hostile attribution bias (Harold et al., 1997; Crick & Dodge, 1994).

The theoretical model presented in Figure 4.1 illustrates the hypothesised pathways through which inter-parental conflict will be associated with pre and post transition adjustment. Consistent with research demonstrating that threat appraisals are associated with indices of internalising symptoms including anxiety and depression (e.g. Dadds et al., 1999; Grych and colleagues 2000, 2003), it is hypothesised that inter-parental conflict will be associated with children's increased transition-related anxiety via threat perceptions. In line with the findings of chapter 3 and transition literature (e.g. Eccles et al., 1993; Seidman et al., 2003), it is hypothesised that parenting will be associated with transition anxiety. It is further

hypothesised that self-blame attributions will be associated with externalising problems in line with research demonstrating consistent links between self-blame and externalising problems (e.g. Davies & Lindsay 1994; Grych et al., 2003). Finally, it is hypothesised that increased anxiety prior to the transition will be associated with poor adaptation and externalising problems in secondary school given that anxiety associated with the transition has been linked to declines in broad indices of psychosocial functioning (e.g. Felner et al., 1981; Hirsch & Rapkin, 1987; Nottlemann, 1987; Wallis & Barrett, 1998).

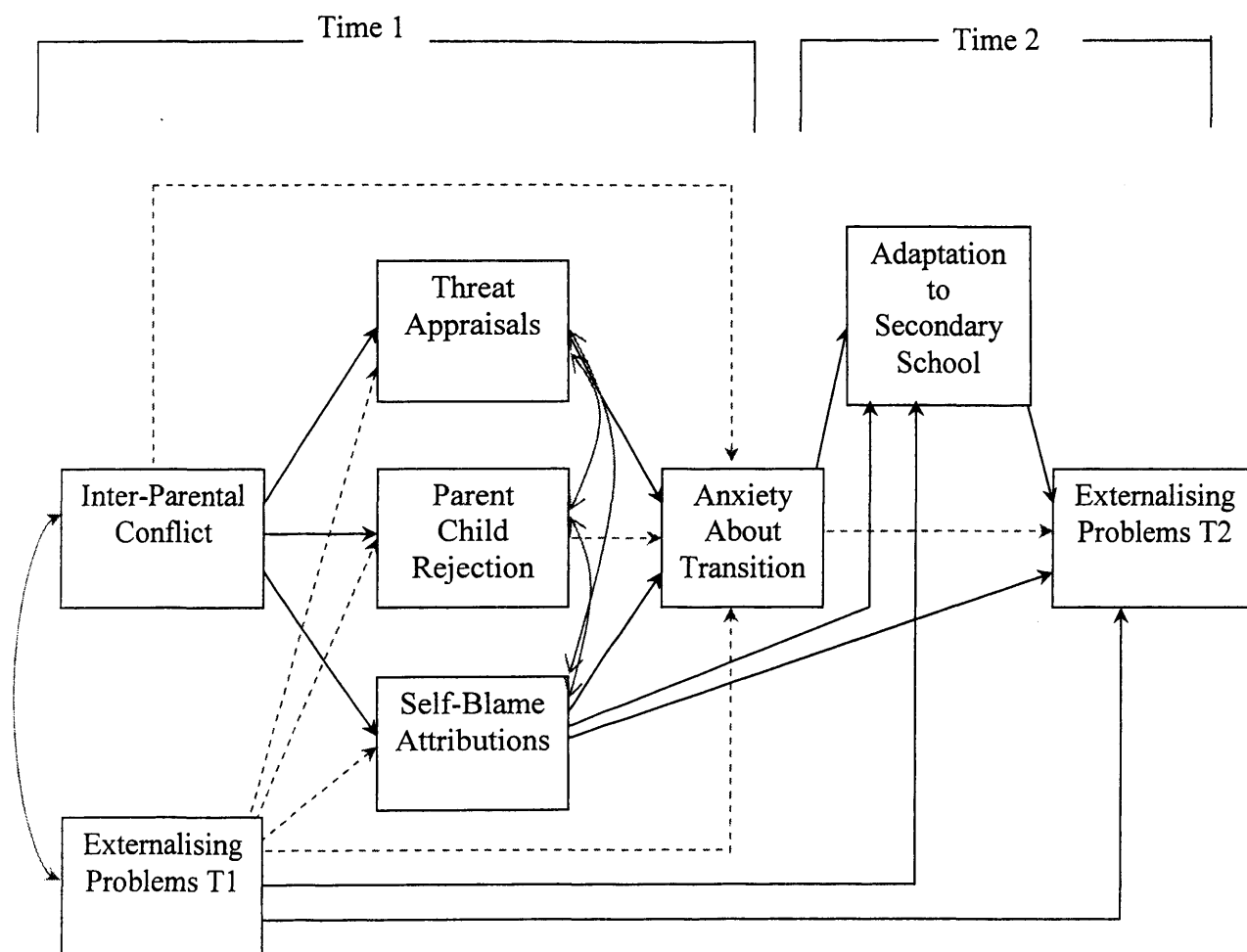


Figure 4.1: Theoretical model indicating the pathways linking inter-parental conflict and child adjustment

Method

Participants

The sample was derived from a two-year longitudinal study of 250 year five and six pupils living in South Wales who were either preparing to make the move to their final year of primary school (year five to year six) or preparing to transition from primary to secondary school (Harold 2005; ESRC RES-000-22-1041). Primary schools were recruited for the present study based on their students' eligibility to transition into the secondary schools recruited for the Welsh Family Study described in Chapter 3. Head teachers of all primary feeder schools were contacted through the secondary schools and those who agreed to participate comprised the sample for the present study. Demographic statistics derived from the present sample suggest that the overall sample was representative of families with a school-aged child living in England and Wales with regards to family constitution and ethnic representation (Social trends, 2009).

Children were retained for the present sample if they were in their final year of primary school (year 6) preparing to make the transition at Time 1. Eighty-two year six pupils and their teachers who had complete information for least one time point (Time 1, 2006 or Time 2, 2007) comprised the sample for the present study. Children were recruited through 11 schools and were aged between 9 and 11 with a mean age of 10.38 years ($SD = .38$) at Time 1, prior to the transition. The sample consisted of 50 boys and 32 girls who were predominantly white and living in intact families (72% living with both biological parents, 15.8% living with one biological and one step-parent, 8.5% living in a single mother headed family and 3.7 % living in an 'other' family environment, such as with adoptive parents or grandparents).

Due to the fact that the present study sought to investigate the impact of inter-parental conflict, children were instructed to answer questions about their parents or the adults they lived with. Children who reported living with their mother only ($N=7$) were included in the present sample if they had provided information about the inter-parental relationship and their relationship with both parents. While many studies investigating the role of inter-parental conflict retain only two parent families for analysis, research suggests that many children from single parent families (due to separation or divorce) are exposed to similar levels of couple conflict, disagreement and aggression (Hanson, McLanahan & Thompson, 1996; Noack, Krettek & Walper, 2001). Conflict between mothers and non-resident fathers has been found to be as detrimental to the quality of the parent-child relationship and child adjustment as inter-parental conflict in two parent families (Dunn, O'Connor & Cheng, 2005; Hanson et al., 1996).

Procedure

After receiving permission from the schools, parents received a letter summarising the project and inviting them and their children to participate. Parents provided written consent for their child to participate in a study investigating the relationship between children's experiences of their home environment, their transition to secondary school and their psychosocial development.

Children completed questionnaires during the course of a normal school day in the presence of at least two researchers, who were available to explain words or questions if necessary, and their teacher, in the summer term just prior to the transition. Questionnaires contained measures relating to the quality of family interaction, parent-child relations, inter-parental conflict, psychological health, relationships with adults and peers in school and perceptions of the school transition. Children were encouraged to speak about how they felt

after completing their questionnaires but no children raised significant concerns following participation.

Teachers completed questionnaires assessing school performance and psychological functioning of the children who completed the study. All teacher questionnaires were returned to the School of Psychology by prepaid post.

Measures

Time 1 Inter-Parental Conflict was assessed using the 17-item Conflict Properties subscale of the Children's Perception of Inter-Parental Conflict scale, (CPIC, Grych et al., 1992). Children answered questions of the Frequency 'My parents often nag or complain about each other around the house', Intensity 'When my parents have an argument, they shout a lot' and Resolution 'My parents still act mean after they have had an argument' of their parents conflict. Response options are 1 'True', 2 'Sort of True', 3 'False' but the subscales were coded so that a high score represented high levels of frequent and intense conflict involving poor resolution, to capture the hostile and destructive, rather than constructive, form of inter-parental conflict. The composite measure of these subscales had good internal consistency for the present sample ($\alpha = .90$).

Time 1 Threat Appraisals were measured using the five-item Threat and six-item Coping subscales of the CPIC (Grych et al., 1992), which include questions such as 'When my parents argue I worry that they might split up' and 'When my parents argue I can do something to make myself feel better'. Response options are 1 'True', 2 'Sort of True', 3 'False', and the combined threat scale derives adequate internal consistency ($\alpha = .83$).

Time 1 Self-Blame Attributions were assessed using the five-item Blame and four-item Content subscales of the CPIC (Grych et al., 1992), which include questions such as 'Even if they don't say it I know I am to blame when my parents argue' and 'My parents arguments are usually about something I did'. Response options are 1 'True', 2 'Sort of

True', 3 'False', and the combined Self-Blame subscale derives adequate internal consistency for the present sample ($\alpha = .86$).

Time 1 Parent-Child Harsh Rejection

In order to capture child appraisals of hostility and rejection in the parent-child relationship, children reported on the Hostile Detachment and Rejection they perceived between themselves and their mother and father respectively, using the eight-item Hostile Detachment and seven-item Rejection subscales of the Children's Report of Parent's Behaviour Inventory (CRPBI; Margolies & Weintraub, 1977; Hostile Detachment- mother $\alpha = .80$, father $\alpha = .81$, Rejection- mother $\alpha = .78$, father $\alpha = .78$). These subscales comprise the negative loadings of Factor I; the Acceptance – Rejection scale of the CRPBI, (Schludermann & Schludermann, 1983) and include questions such as 'Almost always complains about what I do' (Rejection) and 'Spends very little time with me' (Hostile Detachment). Response options include 1 'True', 2 'Sort of True' and 3 'Not True' and questions were coded so that a high score indicated a high level of harsh-rejecting parenting. Children's scores for their relationship with their mother and father were combined to form a composite measure of Parent-Child Harsh Rejection, which had good internal consistency ($\alpha = .92$).

Times 1 and 2 School-Based Aggression

Teachers provided an index of children's school based aggression at Time 1 and 2 by completing the 20-item Aggression subscale of the Teacher Report Form of the Child Behaviour Check List (TRF; CBCL; Achenbach & Rescorla, 2001). Questions included 'Disobedient at school' and 'Gets in many fights' and response options were 0 'Not True', 1 'Sometimes True', 2 'Very True'. This measure had good internal consistency at both time points (Time 1 $\alpha = .94$, Time 2 $\alpha = .92$).

Antisocial Behaviour

Children reported on their antisocial behaviour before and after the transition by completing the nine-item Buss and Durkee (1957) Trait Hostility measure of Antisocial Behaviour, which asks questions such as 'When someone makes a rule I don't like I want to break it' and 'If someone hits me first I hit them back really hard'. Children were asked to report how much each statement was like them and response options range from 1 'Not at all' to 5 'Exactly'. Internal consistency was acceptable at both time points (Time 1 $\alpha = .80$, Time 2 $\alpha = .85$).

Externalising Problems Child and teacher reports were combined to form a composite measure of children's externalising problems that had good internal consistency at both time points (Time 1 $\alpha = .91$; Time 2 $\alpha = .90$).

Time 1 Anxiety about School Transition

Prior to the transition, children were asked about their expectations regarding the school environment in secondary school. This measure was developed specifically for the School Transition Study (Harold, 2006). Items were developed based on existing research and government reports that identify work, lessons and friends as key anxiety provoking areas during the transition from primary to secondary school (e.g. Galton, Grey & Rudduck (DfEE), 1999; Galton et al., 2000; Pellegrini & Long, 2002; Pratt & George, 2005). In addition, research that has been conducted since this project has used very similar questions to enquire about children's perceptions and experiences of the transition process (e.g. Trend, 2007). The use of such measures provides support for the notion that these questions are assessing common areas of concern for children during this developmental transition.

The complete measure comprised ten questions that assessed children's excitement and anxiety about the transition to secondary school. The present study used seven items that focused on children's anxiety about the move. These seven items included questions

such as ‘Worry that you may not be able to cope with the work’ and ‘Worry that you might not find nice friends’ and response options ranged from 1 ‘disagree a lot’ to 4 ‘agree a lot’ (for the full list of items used see Appendix 3). This scale had good internal consistency for assessing transition related anxiety in the present sample ($\alpha = .92$).

Time 2 Adaptation to Secondary School

This measure was developed for the School Transition Study (Harold, 2006), but was also grounded in existing research that has highlighted issues surrounding disparities in work, lessons and school environment as influencing children’s poor adjustment to secondary school (e.g Anderson et al., 2000; Galton, et al., 2000, 2003; Rice, 2001; Simmons, Burgesson, Carlton-Ford & Blyth, 1987; Wigfield et al., 1991). This measure includes eight items that cover positive and negative feelings of aptitude and ability in relation to schoolwork, lessons and the child’s school environment. The present study used five items focussing on children’s perceptions of poor adaptation to their new school environment. These items included questions such as ‘Feel that you struggle to cope with the work’ and ‘Feel that the new subjects are too difficult’ and response options range from 1 ‘Disagree a lot’ to 4 ‘Agree a lot’ (a full list of items appears in Appendix 3). This scale had acceptable internal consistency for assessing children’s perceptions of their adaptation to secondary school in the present sample ($\alpha = .86$).

Missing Data Imputation

Twenty one per cent of the available year six sample was excluded for attrition or not completing questions about inter-parental conflict. Missing Value Analysis (MVA) was then conducted on the remaining data set demonstrating that a maximum of 8.5% of the child reported data were missing across study constructs while a maximum of 26% of teacher-reported data were missing.

Data were largely missing at random (MAR) within the child-reported variables, as is the case in most family studies (Acock, 2005). Further investigation illustrated that there was no systematic pattern to the missingness of the few variables that did not meet MAR assumptions. Demographic variables including family type, child ethnicity, age and gender did not explain the missingness, nor were any factors relevant to children's behaviour associated with the missing teacher reported data. As a result of the percentages and patterns of missingness, it was considered that the data were suitable for missing data imputation (Levine Coley et al., 2008) using a Maximum Likelihood (ML) approach (Roth, 1994).

Missing data were imputed using Expected Maximisation (EM) in SPSS. This is a ML approach, which assumes the missing data meets MAR assumptions and creates a single imputed data set with no missing values. This process is based on observed relationships between variables and produces a less biased estimate of parameters when the data is MAR than deletion methods or other forms of single imputation such as mean substitution (Acock, 2005; Fox-Wasylyshyn & El-Masri, 2005).

Results

Preliminary analyses

The means and standard deviations for the combined sample and boys and girls along with *t* tests of mean differences between boys and girls scores are presented in Table 4.1. As shown in Table 4.1, externalising problems were significantly different such that boys' mean scores were higher than girls' at Time 1 ($t(80) = 4.24, p < .01$) and Time 2 ($t(80) = 3.82, p < .01$). There were also trend like differences between boys' and girls' mean perceptions of mother-child rejection with higher scores for boys compared to girls ($t(80) = 1.84, p < .10$) and between boys and girls transition anxiety with higher means for girls compared to boys ($t(80) = -1.96, p < .10$).

Table 4.1: Means, standard deviations and *t* test results for study construct. Combined sample *N* = 82, Boys *N* = 50, Girls, *N* = 32.

Variable	Combined		Boys		Girls		<i>t</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
Time 1 (2006)							
1. Inter-Parental Conflict	27.66	7.45	28.51	7.84	26.32	6.70	1.31
2. Externalising Problems	21.33	7.00	23.71	6.66	17.61	5.79	4.24**
3. Threat Appraisals	20.27	5.39	20.85	5.13	19.35	5.74	1.23
4. Harsh-Rejecting Parenting	38.89	8.54	39.77	9.63	37.50	6.38	1.76
5. Mother-Child Harsh Rejection	19.12	4.44	19.83	5.11	18.01	2.87	1.84 ^a
6. Father-Child Harsh Rejection	19.77	4.62	19.94	4.83	19.50	4.34	0.42
7. Self-Blame Attributions	11.56	3.18	11.74	3.49	11.29	2.64	0.62
8. Transition Anxiety	14.73	6.02	13.70	5.83	16.33	6.01	-1.96 ^a
Time 2 (2007)							
9. Transition Adaptation	9.36	3.56	9.26	3.81	9.51	3.19	-0.30
10. Externalising Problems	23.16	7.29	25.44	6.33	19.61	7.35	3.82**

Note: ** $p < .01$, ^a $p < .10$.

Preliminary analyses of levels of externalising problems within the sample

Preliminary analyses were conducted to explore the range in problems across this sample as well as to investigate change in levels of problems between pre and post transition.

Much like the post-transition sample assessed in Chapter 3, the majority of children in the present sample scored within the normal range of aggressive behaviour but there were also several children who received a score in the borderline or clinical range of aggressive behaviour.

At Time 1, 56.1% of the sample, comprised of 23 boys and 23 girls, were rated as 0 by their teachers, while 41.5% (26 boys and 8 girls) scored in the normal range of

between 1 and 9. 1 boy (1.2% of the sample) received a score of 16 indicating that he had borderline clinical range of aggressive behaviour and was approaching the clinical range; whilst 1 girl (1.2% of the sample) received a score of 25 placing her in the clinical range of school based aggressive behaviour.

At time 2, no children scored in the clinical range and the maximum score was only 14 but only 45.1% of the sample (24 boys and 13 girls) scored 0 while 50% (23 boys and 18 girls) scored within the normal range of aggressive behaviour. 4.9% of the sample (3 boys and 1 girl) received a score of between 10 and 14 indicating that they were borderline, or approaching borderline, clinical range of aggressive behaviour. As such, despite the decline in individual scores of aggressive behaviour, the overall sample appears to show a significant increase in externalising problems between pre and post transition, as indicated by the paired samples *t* test ($t(81) = -3.10, p < .01$).

Table 4.2 illustrates the inter-correlations between all study constructs for the combined sample at both time points. Gender differences in the magnitude of associations are not examined in this study because of the comparatively small sample sizes for boys ($n = 50$) and girls ($n = 32$), respectively.

For the combined sample, inter-parental conflict was positively associated with children's perceptions of threat ($r = .48, p < .01$), harsh-rejecting parenting ($r = .38, p < .01$), mother-child rejection ($r = .35, p < .01$), father-child rejection ($r = .37, p < .01$) and self-blame ($r = .32, p < .01$) at Time 1, prior to the transition to secondary school. All hypothesised mediating variables were positively correlated ($r = .33, p < .01$ - $r = .42, p < .01$)

Table 4.2: Inter-correlations for all study constructs for the combined sample. $N=82$

Study Variable	1	2	3	4	5	6	7	8	9	10
Time 1 (2006)										
1. Inter-Parental Conflict	-									
2. Externalising Problems	.28*	-								
3. Appraisals of Threat	.48**	.19	-							
4. Harsh-Rejecting Parenting	.38**	.17	.42**	-						
5. Mother-Child Rejection	.35**	.22 ^a	.47**	.94**	-					
6. Father-Child Rejection	.37**	.11	.33**	.94**	.77**	-				
7. Self-Blame Attributions	.32**	.24*	.46**	.47**	.48**	.40**	-			
8. Transition Anxiety	.32**	.01	.36**	.32**	.34**	.26*	.32**	-		
Time 2 (2007)										
9. Transition Adaptation	.16	.31**	.18	.25*	.28*	.20 ^a	.17	.46**	-	
10. Externalising Problems	.13	.64**	.22 ^a	.21 ^a	.21 ^a	.18	.35**	.20 ^a	.49**	-

Note: ** $p < .01$, * $p < .05$, ^a $p < .10$, variable 4 is a composite measure of 5 and 6.

Child Adjustment and Adaptation

Prior to the transition, inter-parental conflict was positively associated with transition anxiety ($r = .32, p < .01$). Hypothesised mediating variables were also associated with transition anxiety (Threat appraisals $r = .36, p < .01$, parent-child rejection $r = .32, p < .01$, mother-child rejection $r = .34, p < .01$, father-child rejection $r = .26, p < .05$ and self-blame attributions $r = .32, p < .01$). Inter-parental conflict was not significantly associated with either transition adaptation ($r = .16, p > .10$) or externalising problems ($r = .13, p > .10$) following transition. Two of the five hypothesised mediators were significantly associated with adaptation (parent-child rejection $r = .25, p < .05$ and mother-child rejection $r = .28, p < .05$). Father-child rejection was marginally associated with transition adaptation

($r = .20, p < .10$) but treat appraisals and self-blame attributions were not significantly associated with adaptation ($r = .18, p > .10$; $r = .17, p > .10$, respectively). The only index of family functioning that was significantly associated with externalising problems in secondary school was children's attributions of self-blame ($r = .35, p < .01$). Transition anxiety was significantly associated with adaptation to secondary school assessed one year later ($r = .46, p < .01$), while adaptation was associated with externalising problems ($r = .49, p < .01$).

Structural Equation Modeling

Structural equation modeling (SEM; LISREL 8.50, Joreskog & Sorbom, 1996) using maximum likelihood estimation was used to test the relationships between the manifest constructs illustrated in Figure 4.1. The initial test assessing the direct effect between inter-parental conflict and externalising problems was non-significant when initial symptom levels were controlled ($\beta = -.05, p > .10$). The same relationship was found for adaptation to secondary school when Time 1 externalising behaviour problems were included as a predictor ($\beta = .07, p > .10$). Indirect effects could be tested according to criteria delineated by MacKinnon and colleagues (2002) describing an indirect effect as one in which a predictor variable was associated with an intervening variable, which in turn affected the outcome variable.

The initial relationship between inter-parental conflict and transition related anxiety was significant while considering Time 1 externalising problems as a predictor ($\beta = .35, p < .05$). Cognitions could therefore act as mediators of the pre-transition relationship between conflict and anxiety.

Criteria set out by Bollen (1989), suggest that a parameter-to-N ratio of 2:1 is adequate for the estimation of any proposed model. In the present analyses there were 82 participants and a maximum of 29 parameters estimated for the full model indicating that

there was sufficient power to detect effects (82/29 gives a ratio of 2.8 to 1). To improve confidence that effects were not missed as a function of low power, the full model was also analysed piecemeal using multiple regression analysis and the pattern of effects remained the same.

Analyses proceeded in three steps: First, relationships between pre-transition inter-parental conflict and cognitions with post-transition externalising problems were tested (Figure 4.2). Second, relationships between pre-transition inter-parental conflict, cognitions and transition anxiety were tested (Figure 4.3i) and then developed to include a pathway between pre-transition anxiety and post-transition externalising problems (Figure 4.3ii) and an additional pathway from self-blame attributions directly to externalising problems (Figure 4.3iii). Third, the model tested in Figure 4.3iii was expanded to include pathways from pre-transition self-blame and anxiety to post-transition school specific adaptation and externalising problems (Figure 4.4).

These models were analysed including measures of mother and father child harsh rejection separately. However, results remained the same as the patterns of effects derived using the composite measure of parent-child harsh rejection and so models containing the composite measure are reported throughout the rest of this chapter.

Inter-Parental Conflict and Children's Externalising Behaviour Problems: The Role of Children's Cognitions.

As shown in Figure 4.2, inter-parental conflict was associated with children's self-blame attributions ($\beta = .28, p < .05$) which were, in turn, associated with post transition externalising problems ($\beta = .21, p < .05$), while controlling for their pre-transition behaviour ($\beta = .59, p < .01$). This pathway did not form a significant indirect effect ($\beta = .01, p > .10$). Unlike Chapter 3, no significant effects were found from parent-child harsh rejection ($\beta = .00, p > .10$) or threat appraisals ($\beta = .01, p > .10$) The goodness of fit indices for this model

indicated an acceptable fit to the data ($\chi^2 (1) = 2.43, p=.12, CFI = 0.99, GFI = 0.99, AGFI = 0.79, RMSEA = 0.13$).

Inter-Parental Conflict and Transition Related Anxiety: The Role of Children's Cognitions

Figure 4.3i tested the mediating role of children's cognitions pertaining to the inter-parental and parent-child relationships in the association between inter-parental conflict and anxiety about school transition.

Including children's appraisals in the model reduced the association from inter-parental conflict to anxiety to non-significance ($\beta = .17, p > .10$). Self-blame attributions, but not threat appraisals or parent-child rejection mediated the link between inter-parental conflict and pre-transition anxiety. Inter-parental conflict was associated with self-blame attributions ($\beta = .28, p < .05$), which in turn, were associated with transition related anxiety ($\beta = .28, p < .05$), although this was a non-significant indirect effect ($\beta = .01, p > .10$).

Figure 4.3ii shows the results when the pathway between pre-transition anxiety and post-transition externalising problems was included in the model. Even after controlling for initial symptom levels, pre-transition anxiety predicted post transition externalising problems ($\beta = .20, p < .05$). The fit of this model to the data was acceptable ($\chi^2 (4) = 6.39, p = .17, CFI = 0.99, GFI = 0.98, AGFI = 0.85, RMSEA = 0.08$). However, when the direct pathway from self-blame to externalising problems was included in this model (Figure 4.3iii), the pathway from anxiety to externalising problems was no longer significant ($\beta = .13, p > .10$) nor was the pathway from self-blame to externalising problems ($\beta = .16, p > .10$). The fit of the data to this model was acceptable ($\chi^2 (3) = 3.53, p = .32, CFI = 1.00, GFI = 0.99, AGFI = 0.89, RMSEA = 0.04$).

Inter-Parental Conflict and Externalising Behaviour Problems: The Role of Children's Cognitions Pertaining to Family Relations and School Specific Indices of Adjustment

In the absence of indirect effects identified in Figure 4.3iii, the final model (Figure 4.4) tested the role of indirect effects occurring between transition anxiety and externalising problems operating via a specific measure of children's perceived adaptation to the demands of secondary school. Self-blame attributions mediated the relationship between inter-parental conflict and pre-transition anxiety ($\beta = .28, p < .05$, $\beta = .28, p < .05$; indirect effect $\beta = .01, p > .10$). The indirect effect from inter-parental conflict to externalising problems was also apparent in this model operating via self-blame attributions ($\beta = .28, p < .05$, $\beta = .19, p < .05$), although this indirect effect was non-significant ($\beta = .00, p > .10$). After controlling for initial behaviour problems, self-blame had a significant indirect effect on post-transition adaptation via anxiety about the transition ($\beta = .28, p < .05$, $\beta = .50, p < .01$; indirect effect $\beta = .12, p < .05$). In addition, anxiety about the transition had a significant indirect effect on post-transition externalising problems via perceived adaptation to secondary school ($\beta = .50, p < .01$, $\beta = .31, p < .05$; indirect effect $\beta = .15, p < .05$).

This model demonstrated a good fit to the data ($\chi^2 (6) = 5.33, p = .50$, CFI = 1.00, GFI = 0.98, AGFI = 0.90, RMSEA = 0.0) and increased the proportion of explained variance in externalising problems by almost 10% compared to the analyses presented in Figure 4.2, which did not account for indices of transition specific adjustment in predicting post-transition externalising problems.

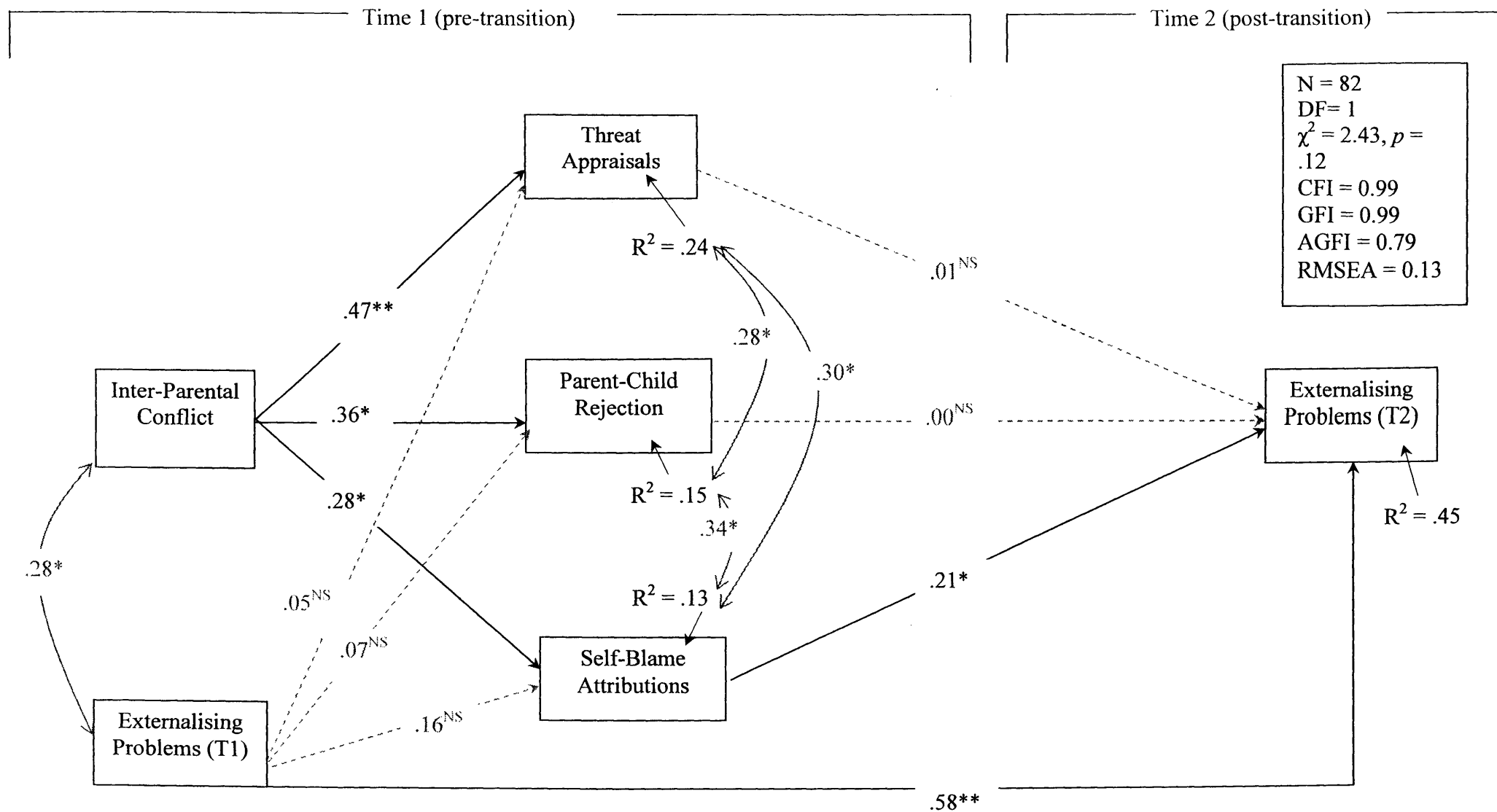


Figure 4.2: Tests of indirect effects of inter-parental conflict on children's externalising behaviour problems using SEM analysis. ^{NS} Non-Significant * $p < .05$, ** $p < .01$.

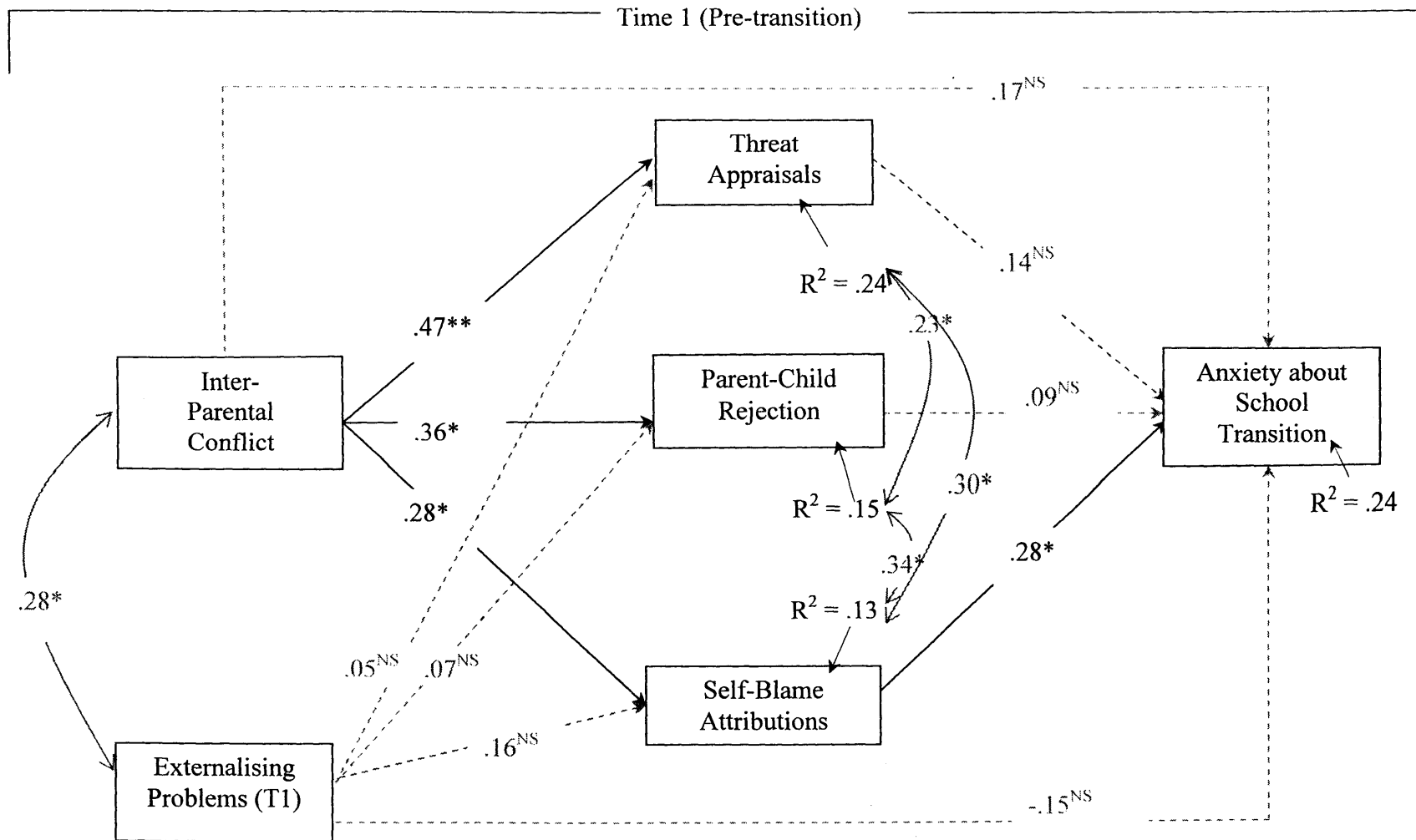


Figure 4.3i: Tests of indirect effects of inter-parental conflict on children's transition anxiety using SEM analysis. ^{NS} Non-Significant * $p < .05$, ** $p < .01$.

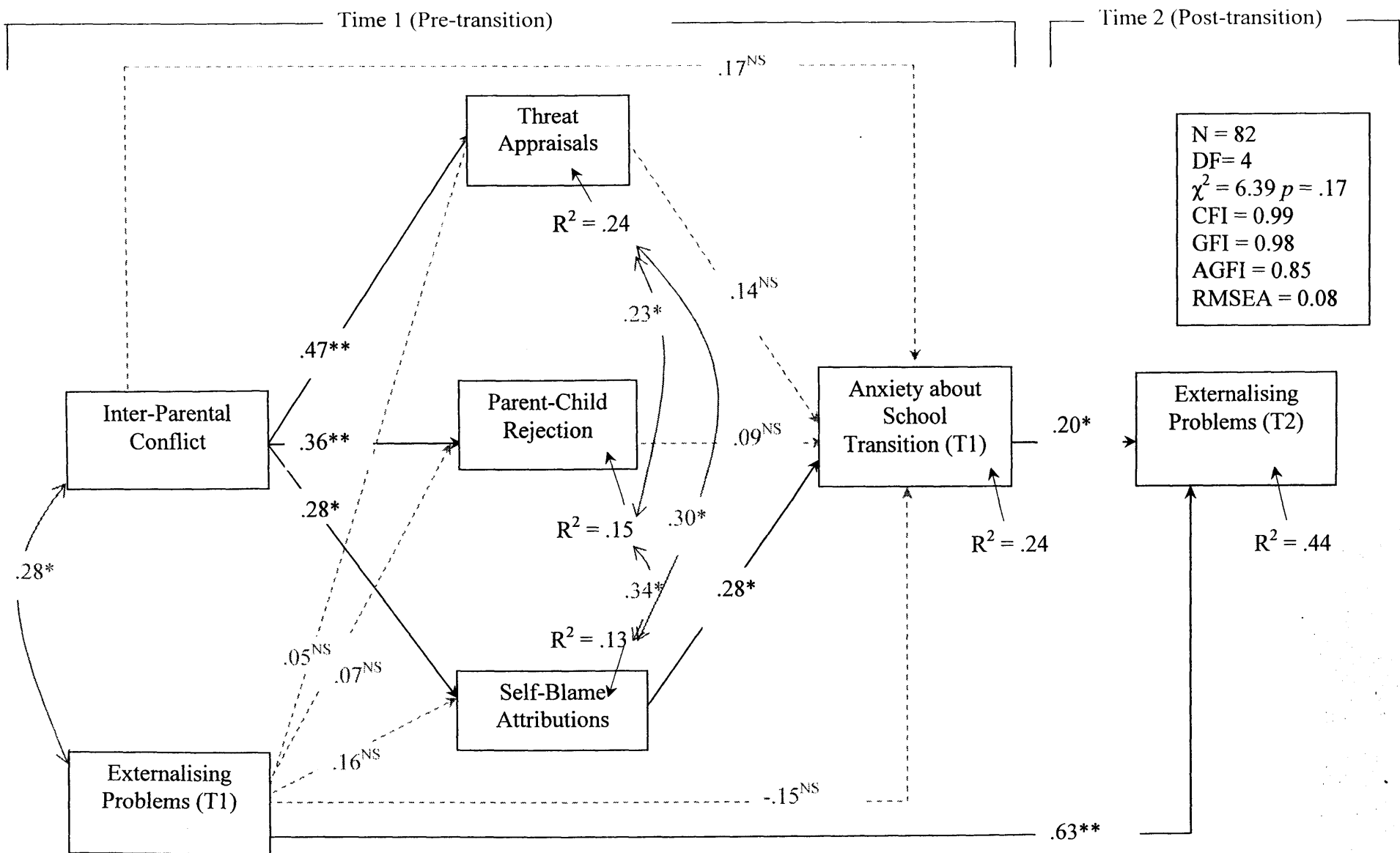


Figure 4.3ii: Tests of indirect effects of inter-parental conflict on children's externalising behaviour problems using SEM analysis. ^{NS}
 Non-Significant * $p < .05$, ** $p < .01$.

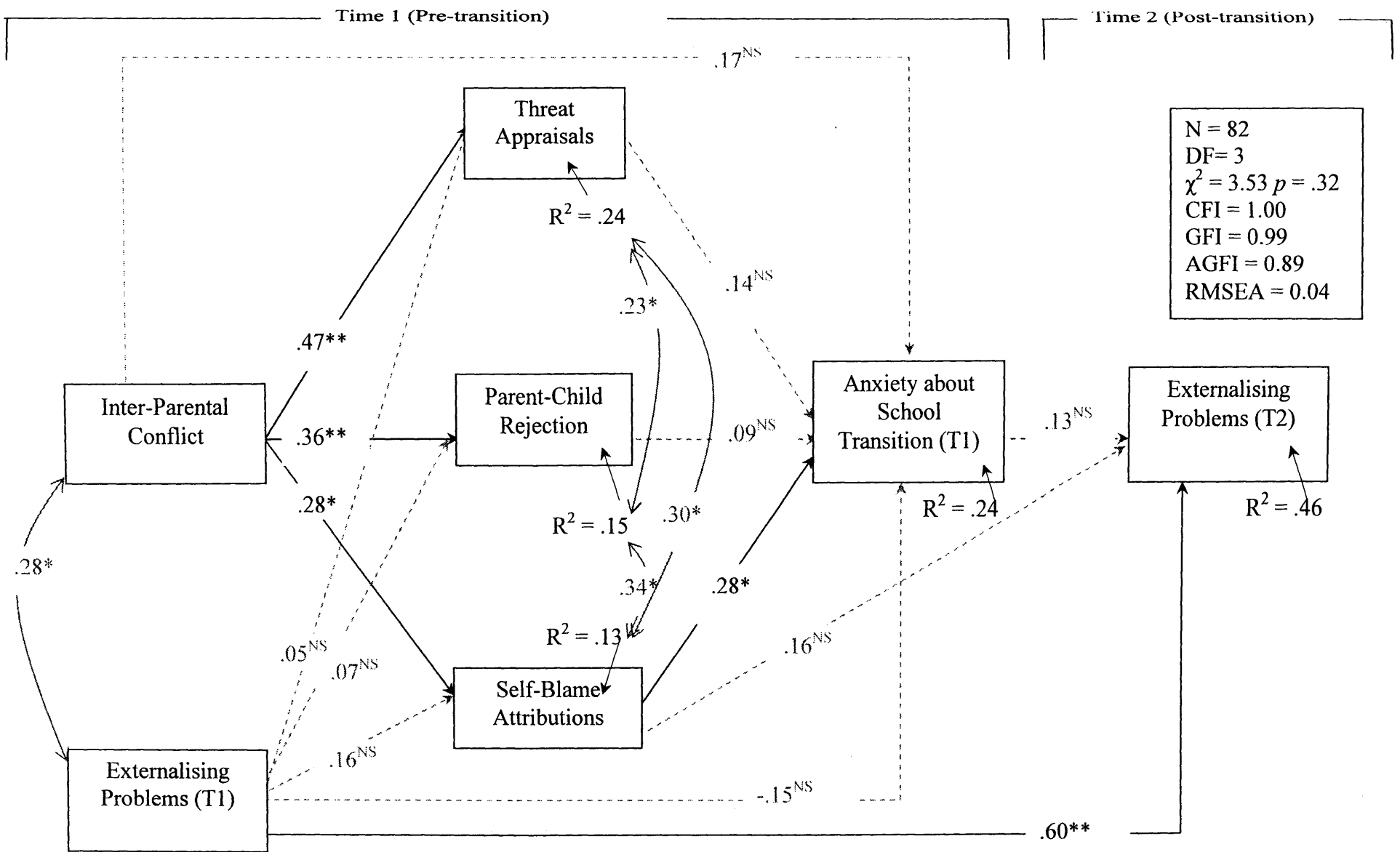


Figure 4.3iii: Tests of indirect effects of inter-parental conflict on children's externalising behaviour problems using SEM analysis.

^{NS} Non-Significant * $p < .05$, ** $p < .01$.

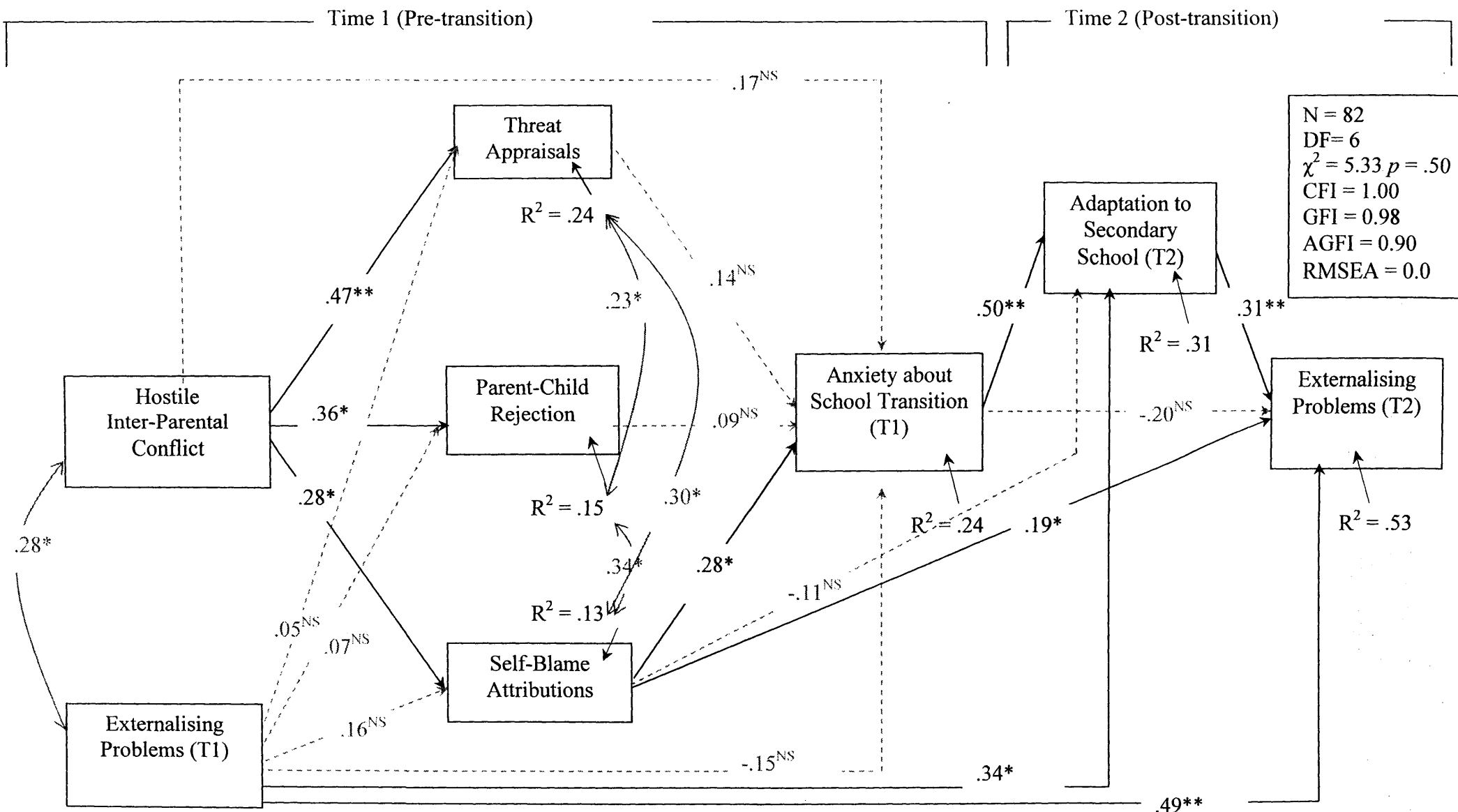


Figure 4.4: Tests of indirect effects of inter-parental conflict on children's externalising behaviour problems using SEM analysis. ^{NS} Non-Significant * $p < .05$, ** $p < .01$.

Discussion

The present study explored the direct and indirect effects of inter-parental conflict occurring prior to the transition from primary to secondary school on children's post-transition behaviour and school-based adjustment, while controlling for initial externalising problems. A specific aim of this study was to build on the findings of Chapter 3 and test the pathways through which pre-transition inter-parental conflict was associated with adaptation to secondary school. An additional aim was to test whether measures of school specific adjustment, identified in the transition literature as relevant to understanding children's well-being in early adolescence, further explained the link between inter-parental conflict and externalising problems. Results indicated that pre-transition inter-parental conflict was initially associated with externalising problems via self-blame attributions. However, findings also demonstrated that children's self-blame attributions mediated the relationship between inter-parental conflict and pre-transition anxiety. Transition related anxiety, in turn, had an indirect effect on externalising problems via poor transition adaptation.

The findings generated from the first step of these analyses are consistent with the literature demonstrating associations between self-blame attributions and externalising problems (e.g. Ablow et al., 2009; Fear et al., 2009; Fosco & Grych, 2007; Grych et al., 2003; McDonald & Grych, 2006). The findings also concur with recent research testing the relationship between children's social cognitions about inter-parental conflict and academic attainment, illustrating that self-blame is the most consistent predictor of adjustment problems over and above parenting (e.g. Harold et al., 2007). These findings are surprising for two reasons. First, considering externalising problems as the outcome, Chapter 3 and the wider transition literature

suggest that parent-child relationships are important factors for orienting adjustment to school (e.g. Dubois et al., 1994; Lord et al., 1994; Seidman et al., 2003). Second, anxiety is theorised to be a reflection of internalised distress and threat appraisals have often been found to be more strongly associated with internalising symptoms than self-blame attributions (e.g. Atkinson, Dadds, Chipuer & Dawe, 2009; Dadds et al., 1999; Grych et al., 2003). The findings of the present study therefore contrast with previous work but attest to the importance of children's self-blame attributions in predicting behavioural and school specific adjustment.

It is possible that the salience of responsibility attributions (self-blame) for successful adaptation to secondary school in the present study could be a direct reflection of the timing with which conflict was measured. Research has suggested that parent-child and inter-parental, child-centred conflict reaches a peak in correspondence with the transition into adolescence and secondary school (e.g. Eccles et al., 1993; Harold et al., 2001; McGue et al., 2005; Smetana et al., 2006). Just prior to the transition, when the family is preparing to make the most reorganisation to accommodate the child's changing needs (Cox & Paley, 1997; Eccles et al., 1993), it is likely that children are exposed to an increase in child-centred conflict that they genuinely feel more responsible for. Child-centred conflict has been associated with increased levels of self-blame attributions compared to conflict that centres around parents' own problems such as work or finances (Grych, 1998). Given previous findings linking self-blame with school specific functioning (Ghazarian & Buehler, 2010; Harold et al., 2007) and externalising problems (e.g. Ablow et al., 2009; Fear et al., 2009; Fosco & Grych, 2007; Grych et al., 2003; McDonald & Grych, 2006) it is plausible to consider that in this developmental context, children's behaviour is most

likely to be informed by self-blame attributions in the context of inter-parental conflict.

The second set of findings advance the transition literature and bridge key principles with family process literature in several ways. Previous transition literature exploring links between family relations and school-based adjustment test family relations prior to transition and adjustment following it (e.g. Dubois et al., 1994; Lord et al., 1994; Seidman et al., 2003). Anxiety coupled with a stressful transition process has also been linked to declines in emotional, behavioural, somatic and academic adjustment in secondary school (e.g. Anderson et al., 2000; Alspaugh, 1998; Blyth et al., 1983; Felner et al., 1981; Hirsch & Rapkin, 1987; Wallis & Barrett, 1998; Wigfield et al., 1991). However, the transition literature has rarely connected these findings in a way that has been tested in the present study.

The findings showed that higher levels of anxiety about school transition had an initial direct effect on post-transition externalising problems. However, when this pathway was simultaneously tested with the path from self-blame attributions, neither construct had a direct effect on post-transition externalising problems. This finding was somewhat surprising but should be interpreted in the context of a relatively strong stability between the estimate of pre- and post-transition externalising problems. In the final model, which included the indirect effect from transition anxiety to externalising problems, via an index of school specific adjustment, the magnitude of the stability coefficient between Time 1 and 2 externalising problems was lower. In this assembly of hypothesised pathways linking inter-parental conflict with externalising problems assessed one year later, self-blame was significantly associated with post-transition externalising problems. This is indicative of two pathways through which cognitions pertaining to inter-parental conflict are associated with post-

transition externalising problems. First, self-blame attributions were directly associated with externalising problems. Additionally, there was an indirect association with externalising problems via increased anxiety about the school transition. Self-blame attributions mediated the relationship between inter-parental conflict and increased anxiety prior to the transition. Anxiety about school transition was, in turn, associated with externalising problems via perceptions of poor adaptation to the transition. This suggests that increased inter-parental conflict prior to the transition predicts poor adaptation and externalising problems in secondary school, in part, by increasing the level of perceived anxiety associated with the process. This finding bridges the ideas delineated above by demonstrating that *both* family relations and transition anxiety are associated with adaptation to transition. However, transition anxiety can be viewed in the context of family relations whereby perceptions of inter-parental conflict are linked with increased anxiety, which predicts poor adaptation and externalising problems in secondary school.

A final point to note is that adaptation to secondary school was predicted by pre-transition externalising problems. This finding highlights how disruptive behaviour in primary school can inform children's ability to adapt to the new academic routine and poses as a risk factor for children's poor adaptation to secondary school. This is consistent with previous research and suggests that children's behaviour in primary school is associated with their initial adjustment to the transition and also their long-term behavioural and adaptation problems once in secondary school (e.g. Anderson et al., 2000; Belsky & MacKinnon, 1994).

Limitations

The present study provides significant advances to previous research that has investigated the role of family relations in children's adaptation to the transition from

primary to secondary school. It uses a longitudinal, process-oriented approach to advance the findings of Chapter 3 by demonstrating that inter-parental conflict occurring prior to the transition appears as detrimental to adaptation in secondary school and externalising problems as post-transition inter-parental conflict. However, there are several limitations of the present study that should be considered.

The sample size was too small to analyse the models separately by gender. Research has demonstrated gender differences in the impact of inter-parental conflict on children's cognitions and adjustment (Davies & Cummings, 1994; Cummings, et al., 1994; Grych et al., 2003; Richmond & Stocker, 2007) and also in children's reactions to school transition (Blyth et al., 1983; Cantin & Boivin, 2004; Ferguson & Fraser, 1999; Hirsch & Rapkin, 1987; Wigfield et al., 1991). Chapter 3 also identified distinct pathways from inter-parental conflict and later externalising problems for boys and girls, and the present study alluded to mean level differences in boys' and girls' anxiety about the transition. To explore whether inter-parental conflict operates via different cognitions and whether anxiety exerts a different effect on girls' and boys' post-transition adjustment, future research should work with a larger sample size to permit the analysis of the theoretical model separately by gender.

There were several methodological limitations to the present study that also affected Chapter 3. These shall not be repeated in any detail as they have been thoroughly described in Chapter 3 but they include single rater bias resulting in increased method variance, and the inference of causality among concurrently measured constructs. In response to the rater bias, similar research has demonstrated that parent and child report of several of the constructs studied in this chapter yield the same pattern of effects (e.g. Grych et al., 2003; Walper & Schwarz, 2001). Moreover, it is argued that children's appraisals of family relationships play a significant role in

orienting their psychological adjustment (e.g. Crockenberg & Forgays, 1996; Grych et al., 2003).

Causality cannot be statistically inferred when constructs are all measured within time and even when measured across time research has presented reciprocal effects between parenting and child behaviours (e.g. Belsky et al., 2007). However, some research that has explored reciprocity in the parent-child relationship has demonstrated that that irrespective of a child's predisposition for aggressive behaviour, parent-child conflict and inconsistent parenting behaviours maintain children's externalising behaviour over time (e.g. Burt et al., 2005; O'Connor et al., 1998). The present study therefore hypothesises causality in the direction of inter-parental conflict preceding cognitions pertaining to it, which, in turn, precede anxiety about the transition.

The final limitation to be considered relates to the exclusive focus on family attributes for informing child adjustment to school transition. Research has suggested that there are may be social and organisational discontinuities between the primary and secondary school environments that play a key role in orienting child adjustment to the transition and also interact with family factors (Anderson et al., 2000; Eccles, 2004; McLaughlin & Clarke, 2010; Rice, 2001). A main aim of the present study was to understand of the role of family relations in children's adjustment to this key normative transition. However, it must be acknowledged that transition is a school-based event and research has suggested that proximal actions exert a greater effect on behaviours within the same context than distal actions (Wentzel, 2002). An investigation of characteristics of the school environment that are pertinent to the school transition may further understanding of variation in children's adaptation. This is an area that will be considered in greater detail in Chapter 5.

In summary, the present study has bridged the gap between two distinct research literatures; one examining family processes that inform children's externalising problems and the other scrutinising the impacts of the transition from primary to secondary school on child psychological health. It demonstrates that children's cognitions pertaining to the inter-parental relationship, specifically self-blame attributions are important for understanding pre- transition anxiety and post-transition adjustment. Furthermore, this study has shown that children's increased anxiety about making the transition can act as a mechanism linking family functioning to transition specific and behavioural adjustment in secondary school.

These findings suggest that it is important to consider factors within the family but also factors specific to the school to more completely account for school-based adjustment. Therefore, it seems important to examine children's perceptions of school-based factors during the transition, rather than just their perceptions of anxiety and adjustment. Including an examination of the physical environment and social aspects of school life purported to change during the transition (e.g. Delamont & Galton, 1986; Eccles et al., 1993; Fergusson & Fraser, 1999; Roderick & Camburn, 1999; Pratt & George, 2005; Wigfield et al., 1991) may provide insights into the specific aspects of the school transition that evoke the anxiety exacerbated by self-blame attributions for inter-parental conflict in this study.

To test this notion, Chapter 5 will examine children's qualitative descriptions of school characteristics that appear to help and hinder their preparation for the transition to secondary school. It will also consider these perceptions in light of the

findings presented in Chapters 3 and 4 relating to the role of children's cognitions pertaining to family relations and post-transition adaptation.

CHAPTER 5

Introduction

This thesis has explored how children's attributions about, and responses, to inter-parental conflict are associated with externalising problems at secondary school. Chapters 3 and 4 showed the importance of children's social cognitions about family functioning for orienting their adjustment within the school, during a period of normative life stress. What has yet to be explored is the role of characteristics of the school environment prior to transition in orienting children's ability to adapt to the school transition. This chapter aims to draw attention to the fact that the school is a primary institution in children's social development (Bronfenbrenner, 1977) and, together with the family environment, plays an important role in orienting children's externalising problems and post-transition adjustment.

Consistent with the principles of family systems theory (Cox & Paley, 1997) described in Chapter 1, it is considered that the family system is part of a larger system comprising of social institutions that influence child development either directly or via their impacts on family functioning. Bronfenbrenner's (1977) ecological framework featured prominently in this aspect of the family systems theory and made great advances in demonstrating the extent to which the family and external social institutions including schools, communities, government and the media interact to inform the functioning within each system and ultimately individual development. The ecological framework identifies four systems: the microsystem, mesosystem, exosystem and macrosystem. This chapter will briefly discuss the two most relevant systems for conceptualising the relationship between the home and school that has consistently been described as orienting children's school-based behaviour (e.g. Eccles & Harold, 1993; Hill & Tyson, 2009; Hill & Taylor, 2009).

Bronfenbrenner (1977) delineated the links between the microsystem including the child, the family and the school and the mesosystem, which represents the inter-relationships

between each primary institution of socialisation. His framework suggests that children's development is informed by the family and the school individually but also by the home-school interface. This suggests that institutions are reciprocally governed by each other and that specific characteristics of the school environment may influence the extent to which family factors can orient children's school-based adjustment, and vice versa. A clear example of this is during the school transition when the child's school environment is in a state of transition and reorganisation, which is associated with an increased risk of poor school-based adjustment in the context of disruption within family relations (e.g. Lord et al., 1994; Eccles et al., 1993; Rice, 2001; Seidman et al., 2003). Chapters 3 and 4 have investigated specific characteristics of family relations associated with children's post-transition adjustment. This chapter will explore specific characteristics of the school environment associated with children's adjustment that may act to reduce or enhance children's risk of developing post-transition externalising problems in the context of inter-parental conflict.

School-Based Factors Impacting Adjustment to the Transition from Primary to Secondary School

It has been suggested that the transition from primary to secondary school can be challenging to navigate because it involves disruption and discontinuity to several aspects of children's school-based routines (e.g. Galton et al., 2003). This disruption appears to affect social and academic aspects of the school environment (Anderson et al., 2000; Rice, 2001).

The Role of Inter-Personal Social Relationships

The quality of student-teacher interactions has been shown to decline across the early years of secondary school (Eccles, Lord & Midgley, 1991; Reddy, Rhodes & Mulhall, 2003) and relations with teachers have been reported to be more stressful by secondary than primary pupils (Murray-Harvey, 2010). The quality of student-teacher relationships may

decline, in part, as a result of the discontinuity between primary and secondary teaching strategies (e.g. Eccles et al., 1991; Galton et al., 1999; 2003). Despite the introduction and development of the national curriculum there is still marked discontinuity between primary and secondary styles of teaching (Galton et al., 1999; 2003). Many secondary teachers value a 'fresh start' approach where all children are taught at the same (lower) level regardless of their primary school achievement (Anderson et al., 2001). This may be associated with brighter pupils feeling unmotivated and anxious about the curriculum discontinuity following the transition (Evangelou et al., 2008; Galton & colleagues, 1999; 2003).

Poor student-teacher relationships have been associated with aggressive behaviour (Hamre & Pianta, 2001; Ladd & Burgess, 1999; Stipek & Miles, 2008), potentially explaining the increase in behavioural problems following school transition (e.g. Pellegrini, 2002; Pellegrini & Bartini, 2000; Wigfield et al., 1991). Negative interactions have also been associated with declines in motivation and increased anxiety, withdrawal and a range of somatic complaints (Murray-Harvey, 2010). Conversely, positive student-teacher relationships characterised by care, support and warmth have been associated with a range of positive outcomes including emotional well-being, motivation and success in school (e.g. Hamre & Pianta, 2001; Roeser, et al., 2000; Wentzel, 1999).

Research has highlighted the role of children's social cognitions in understanding the association between school-based relationships and behaviour problems during this period. Perceived support and teacher availability have been associated with increased motivation to learn and self-esteem as well as decreased depression (Reddy et al., 2003; Roeser et al., 2000). It is possible that a change in children's perceptions of relationships with teachers between primary and secondary school explains the apparent decline in support and availability that has been documented across the transition.

Friendship groups can also change drastically across the transition, as children have to interact with a larger peer group in multiple classrooms (Anderson et al., 2001; Jones & Wassell, 2005). Deterioration in friendships established at primary school has been described as a natural process due to children seeing less of each other with the change of schools (Azmitia, Lippman & Ittle, 1999). However, changes to friendship groups have been described as a source of distress and anxiety both prior to the transition and once children are in secondary school (e.g. Pellegrini & Long, 2005; Pratt & George, 2005).

Prior to the transition, children discuss concerns about being separated in secondary school and talk about fears of whether they will stay friends and how they will keep in contact (Pellegrini & Long, 2005). Following the transition, children often talk of new friendships they have made and the importance of supportive peer relationships during early adolescence and the transition to secondary school (e.g. Azmitia et al., 1999; Evangelou et al., 2008; McLaughlin & Clarke, 2010). Despite many positive experiences, numerous children describe friendships that have ended and experiences of bullying once they have started secondary school (Evangelou et al., 2008; Pellegrini and colleagues, 2000, 2002 a,b; Pratt & George, 2005). These findings highlight the transient and potentially distressing nature of peer relationships during transition.

The Role of Structural Aspects of the School Climate

Changes in the physical environment of the school have been associated with a decline in psychological well-being. During the transition, children often have to move from a small intimate social environment in primary school to a large unfamiliar secondary school environment (Anderson et al., 2000; Jones & Wassell, 2005). In year six (age 10-11 years old), children are the oldest and most educated pupils in the school, but in secondary school, they become the smallest and youngest in the school (Blyth et al., 1983; Roderick & Camburn, 1999).

In addition, there are marked shifts in the lesson structure between primary and secondary school which often lead to distinct differences between children's expectations and actual experiences of their new school environment (e.g. Delamont & Galton, 1986; Galton et al., 2002; Wigfield et al., 1991). The disparity between expectations and the reality of secondary school life can be further exacerbated by transition days. Many children experience transition days prior to the move in which they are introduced to the school, some teachers and some lessons. Although these transition activities are designed to be enjoyable (Delamont & Galton, 1986; Galton et al., 2002; Wigfield et al., 1991) and have been described positively by children and parents (Evangelou, et al., 2008; Galton et al., 1999), they do not accurately reflect the typical day-to-day structure of the curriculum. It has been suggested that this disparity between children's initial impression of school and their experience of daily school life may partly account for declines in their scholastic motivation and academic attainment in the first year of secondary school (e.g. Delamont & Galton, 1986; Galton et al., 2002).

As a result of these shifts in social relationships and in the physical school climate that do not fit with the child's emotional or academic needs (Eccles et al., 1993) it has been suggested that around 10% of all children have difficulty adjusting to secondary school life. This initial difficulty can result in long-term problems including school drop-out, exclusion and placement in pupil referral units (Jones & Wassell, 2005).

In summary, it appears that the transition to secondary school is challenging for students for four main reasons. Disruption and declines in the quality of relationships with teachers and with peers appear to be associated with anxiety prior to the transition and distress and declines in motivation in secondary school. Changes in lesson structure and the school environment also appear to have an impact on children's sense of academic self-competence and scholastic motivation. It has been suggested that student-teacher

relationships (although the same may also be said for peer relationships, lesson structure and class environment) have been consistently acknowledged as important but there has been a neglect of the specific details of this relationship 'as a focus for policy or practice development' (p. 93, McLaughlin & Clarke, 2010). In order to develop effective interventions to support children's transition from primary to secondary school it is necessary to identify factors that help or hinder navigation of the transition.

It is clear that children's perceptions of their social environment orient their psychological adjustment (e.g. Crick & Dodge, 1994; Grych & Fincham, 1990). Investigating children's perceptions of specific aspects of the school environment that are helpful and unhelpful during the transition is likely to be important for explaining variation in adjustment. However, this study is also interested in relationships between the home and school environment. Previous chapters have described how, during the transition to secondary school, an incompatible stage-environment fit occurs that is applicable to both the family and school environment at this time (Eccles, 2004; Eccles et al., 1993). Both parents and teachers appear to perceive social environments in different ways to young adolescents in terms of the levels of autonomy and responsibility they are prepared to permit compared to the levels adolescents feel capable of handling (e.g. Eccles et al., 1993; Lord et al., 1994). It is likely that parents and teachers will have a different perception, compared to children, of the socio-emotional and academic needs of the pupils during the school transition. In addition, this thesis has demonstrated how disruption to family relations is associated with children's perceptions of how challenging the school transition will be and their adjustment to school. It is proposed that the effects of challenging family relations will pervade into the school environment to influence children's perceptions of school-based relations as helpful or unhelpful during the transition.

The Present Study

The primary aim of this study is to further understanding of when and why the transition to secondary school is challenging by exploring the specific aspects of the school climate that children find helpful and unhelpful to ease their experience. An additional aim of this study is to examine the notion of disparity between children's needs and opportunities afforded by the home-school interface. This study will explore parents and teachers views of aspects of the school environment that are helpful and unhelpful for children's successful transition preparations. It will also examine the role of children's cognitions pertaining to family functioning in orienting their perceptions of school-based social relationships.

A qualitative approach is employed to test data generated from a series of open-ended questionnaire responses. The open-ended questions used were designed as part of the broader research design for the School Transition Study by the research director. They were designed to meet the political agenda of the research funding whilst also representing a brief, efficient way of gathering comparable qualitative responses from a large number of participants comprising three distinct demographic groups experiencing the transition. It is not ideal to use open-ended questions as part of a questionnaire for gathering detailed responses from which to orient further research. As such, rather than provide a platform from which to conduct research, these open-ended questions provided data that could be analysed to broaden the conclusions drawn in the thesis and provide a richness and depth to the understanding of factors informing the transition experience that could not be gathered from quantitative data alone (Rutter et al, 2010).

Questions were framed in the context of a phenomenological perspective to uncover perceptions of school based-factors that informed the process of transition children, parents and teachers were actually experiencing. A phenomenological perspective tests the lived experience of participants and consequently provides a deeper and more accurate

understanding of the meaning of the phenomena of interest compared to methods of analysis employing a retrospective perspective (e.g. Astin & Long 2009; Goulding, 2005; Ryan, Coughlan, & Cronin, 2007).

Qualitative methods are considerably less popular than quantitative methods across a range of disciplines due to their lack of generalisability, subjectivity to researcher bias and anecdotal presentation (Hanson & Grimmer, 2007; Ryan et al., 2007). However, it has been argued that qualitative and quantitative methods work in a complementary manner to provide greater insight into the behaviour being studied, develop meaning and contribute to a more holistic and detailed understanding of social phenomena than the use of either method separately (Hanson & Grimmer, 2007; Langhout, 2003; Patton, 2002). Qualitative methods can typically be used to generate questions, which can be further quantified in large-scale quantitative analyses or they can be used to expand upon quantitative findings and elucidate meanings ascribed to them, as in the present study (Rutter et al., 2010).

Qualitative research aims to 'understand the dynamics of social life and the linkages between processes and outcomes' (p. 391 Astin & Long, 2009; Denzin & Lincoln, 2000) by considering peoples' perceptions of events and the broader contextual factors that may influence them. In this sense, the aims of qualitative data are very similar to the aims of Cummings and Davies' (2002) description of a process-oriented approach to analysing family-based research. Cummings and Davies' (2002) theory posits that it is important to consider dynamic processes that link risk factors to outcomes within a broader developmental or social context. It is anticipated that the qualitative analysis of parents', children's and teachers' reports of their lived experience of school transition will compliment the process-oriented analyses conducted in the preceding chapters and provide a more holistic understanding of the factors that make school transition most challenging.

Method

Sample

The data for these analyses derive from a longitudinal study comprising of 250 year five and six pupils, their parents and teachers, living in South Wales, United Kingdom (Harold, 2006-2007, RES-000-22-1041). This study includes a sample of 100 year six children (boys $N= 58$; girls $N= 42$) and 93 parents (Fathers $N= 36$; Mothers $N= 57$) who participated in the School Transition Study during the summer term of year six just prior to their transition. Data is also included for six teachers who returned questionnaires from the original sample of 11 primary feeder schools (two year six teachers and four primary school head masters) and five teachers from six recipient secondary schools (three heads of year seven, two transition co-ordinators). This sample was purposive in that children were only included if they were in year 6 at Time 1 and could report on their lived experience of the transition and also responded to at least one of the research questions. Their parents and teachers were included in the analysis if they too responded to at least one of the research questions. Selecting participants purposively in this manner, to meet the requirements of the study, allows for an analysis of a range of immediate experiences, improving generalisability of the identified core features of that experience (Goulding, 2005).

Measures:

Participants in this study responded to three open ended questions about school transition. Questions asked participants to report the helpful and unhelpful aspects of the transition process as well as make suggestions for future actions. Questions presented to children included:

- 1) *'What have you found most helpful about the things teachers at your school have done to prepare you for the move to secondary school?'*

2) *'What have you found least helpful about the things teachers at your school have done to prepare you for the move to secondary school?'*

3) *'What do you think the school could do in the future to help children like you prepare for the move to secondary school?'*

Questions presented to parents and teachers covered exactly the same topics but were phrased slightly differently. For example the helpful question presented to parents was

'What have you found most helpful about the things the staff at your child's school have done to prepare you and your child for his/her move to secondary school'

and the same question for teachers was

'What have you found most helpful about the things the staff at your school have done to prepare pupils for the move to secondary school?'

Procedure:

After obtaining parental consent, children completed questionnaires during the course of the normal school day. The questionnaires contained quantitative measures relating to family interaction, parent-child relations, inter-parental conflict, psychological health, children's relationships with adults and peers in school and the perceptions of moving to secondary school as well as the three open ended questions listed above. Children were encouraged to speak about how they felt after completing their questionnaires but no concerns were raised by any of them.

Parents were sent a questionnaire pack asking them to report on family interaction, parenting, marital satisfaction, parent and child psychological health, economic conditions and family demographics, and the school transition process as well as a stamped addressed envelope in the post. The year teacher or head master/ head of year completed a questionnaire relating to current and proposed transition policies. All teacher questionnaires were returned to the School of Psychology by prepaid post.

Data Analysis:

Questionnaire responses were entered into Nvivo 8 (QSR International, 1995), a software package for the analysis of qualitative data, and analysed using both deductive and inductive content analysis to support generalisations made about the data (Seale & Silverman, 1997). Nvivo 8 was used to store and categorise the data as such qualitative data analysis software packages have considerably speeded up the process of storing data, coding it and linking themes, which is specifically helpful for large volumes of data, such as that included in the present study (Quinn-Patton, 2002; Ryan, et al., 2007; Smith & Short, 2001; Webb, 1999). The standardisation of functions offered in Computer Assisted Qualitative Data Analysis Software (CAQDAS) programs (Quinn-Patton, 2002) can also contribute to more systematic analysis of themes improving validity of findings (Seale & Silverman, 1997). However, the data for the present study was also partially analysed by hand prior to being entered into Nvivo to ensure that the researcher was fully immersed in the data. This facilitates a more thorough understanding of themes (Burnard, 1991; Webb, 1999) and greater reliability in the identification of categories (Cavanagh, 1997).

Based on existing research that has explored the role of the school environment in child development, deductive or directed content analysis was used in the first instance to code themes such as teacher support, peer relationships, transition days and comprehensive style lesson materials. Deductive content analysis is used when theory or research exists about a phenomenon and the researcher wishes to retest the theories to confirm or expand them (Elo & Kyngas, 2007; Hsieh & Shannon, 2005). The existing theories can be used to direct the questions that are asked and the themes that are coded within the data and can then be used to inform the operational definitions or meanings given to each category (Hsieh & Shannon, 2005).

Once themes were coded using deductive content analysis, the data were reanalysed to search for uncoded data and a process of inductive content analysis was carried out to include all emergent themes, not just the predicted ones, and improve the reliability of results (Hsieh & Shannon, 2000; Seale & Silverman, 1997). Inductive content analysis involves reading through and annotating the data before organising the annotations into categories and sub- categories. The aim is to reduce the data into manageable amounts and to provide a parsimonious way of describing it to improve understanding of its meaning (Cavanagh, 1997; Hsieh & Shannon, 2005). Following the categorisation of all emergent themes, the data was re-read and the labelling of categories was discussed and agreed upon with an additional member of the research team to ensure validity of themes analysed (Hsieh & Shannon, 2005; Quinn-Patton, 2002).

The data was analysed in both a quantitative and qualitative fashion to ensure representativeness of the sample and data by demonstrating frequency of responses and also exploring the themes on a more individual level (Seale & Silverman, 1997). Analysis proceeded in four main steps: first a model was created in NVivo 8 to illustrate the overarching themes that had emerged for children, parents and teachers to each of the three research questions. Second, graphs were produced illustrating the percentages of responses for parents and children for each of the overarching or parent level themes identified during coding and presented in the models. Although these graphs represent a numerical representation of the data they allow for the analysis of the most frequent or core theme to emerge for each group of respondents. They also allow for the comparison of core themes across groups and the identification of continuity or disparity in core themes for parents compared to children. These themes were further explored using excerpts of raw data to illustrate how they were generated from parents' and children's reports of their lived experiences of the transition.

Third, a coding matrix was constructed using NVivo 8 to investigate how themes were informed by attributes pertinent to the investigation. Gender has been consistently highlighted in the transition literature as orienting differences in children's adjustment to their new school environment (e.g. Blyth et al., 1983; Hirsch & Dubois, 1992; Hirsch & Rapkin, 1987; Pellegrini & Long, 2002). In addition, this thesis is primarily concerned with understanding the mediating role of children's social cognitions pertaining to family relations in the link between inter-parental conflict and externalising problems. The attributes assigned to responses in the coding matrix were 1) gender, 2a) appraisals of inter-parental conflict, 2b) threat perceptions, 2c) parent-child harsh rejection and 2d) self-blame attributions. Two groups of children were created based on gender and for each of the four appraisal dimensions. With regard to the four appraisal dimensions, one group comprised the top 10% of scores for each dimension representing children reporting the most challenging family relations. The second group comprised the remaining 90% of scores as the comparison group. This facilitated an assessment of the association between children's perceptions of family relations and their interpretation of the school environment.

Results for gender were converted into percentages of responses for each theme and presented graphically to explore differences in boys' and girls' response. To examine the impact of children's social cognitions, the two groups' reports of teacher behaviour were converted into percentages and presented graphically. Teacher behaviour was the only theme to be cross-examined by social cognitions, as it was the most frequently reported theme by children as a whole group and by boys and girls separately. Considering student-teacher relationships in this way permitted the investigation of children's perceptions of social relations across the home and school domains. Comments from each group were also discussed to further elucidate specific aspects of themes identified by children experiencing a challenging home environment prior to the transition.

Finally, primary and secondary teacher responses were analysed using graphical representations of percentages of responses and excerpts of raw data. Analysing teacher responses separately from family responses allowed for the identification of themes highlighted within the school context and continuity or disparity between 1) primary and secondary institutions and 2) the home and school environment.

Results

Most Helpful Aspects to Aid School Transition

Q1: 'What have you found most helpful about the things teachers/staff at your school have done to prepare you/your child/pupils for the move to secondary school?'

To answer this question, a model was generated in Nvivo 8 (Figure 5.1) to illustrate the overarching themes reported among children, parents and teachers. This model does not illustrate a hierarchy of responses or any form of frequency. It simply highlights the core themes to emerge from the dataset as a whole and the consistency among raters for each theme. The top level of the model reveals the key aspect of the question i.e. helpful aspects, the second level identifies the overarching themes that were coded in the data e.g. teacher behaviour for each group of participants. This level does not represent sub-themes that were coded, such as specific aspects of teacher behaviour; it simply illustrates all parent level themes that were described by participants in their responses to each respective question. The following levels of the model illustrate the raters who described each theme.

As shown in Figure 5.1, the themes that most consistently emerged from the responses of all groups of participants were 1) lesson material, 2) teacher behaviour and 3) transition days. Members of the family and school appear to be equally aware of school factors that are helpful to children making the transition. However, parents appear to have more in common with children's views of helpful aspects than teachers but also seem to value

many of the more organisational factors of the transition process that teachers describe, such as parent-teacher evenings.

Helpful Themes Described by Family Members

Findings of Figure 5.1 were expanded upon to demonstrate the helpful theme most often reported by family members. Figure 5.2 presents the frequency of reports of helpful themes identified by parents and children in the form of a bar chart.

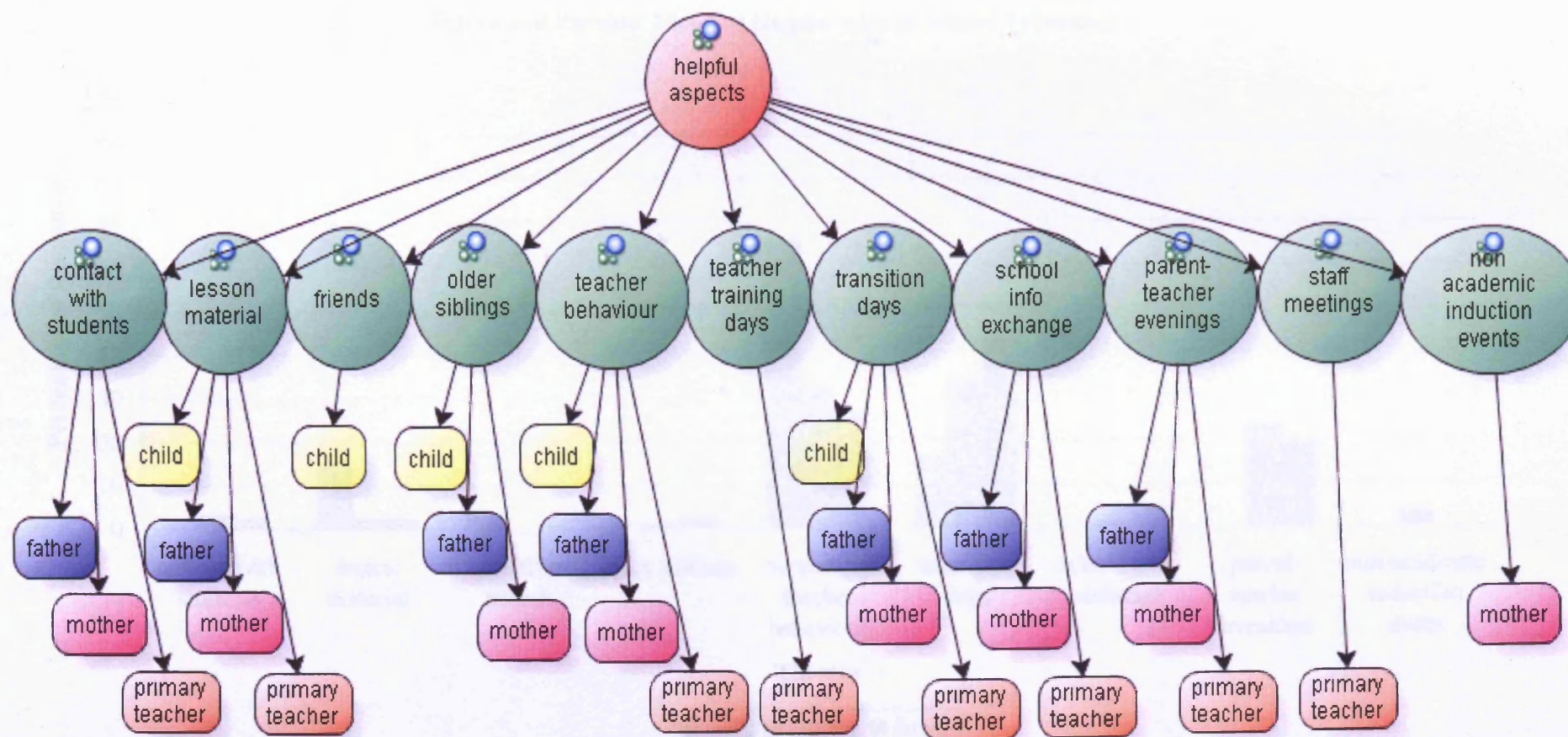


Figure 5.1: Diagrammatic representation of the overarching themes emerging from children's, parents' and teachers' views of the most helpful things that have been done to aid transition.

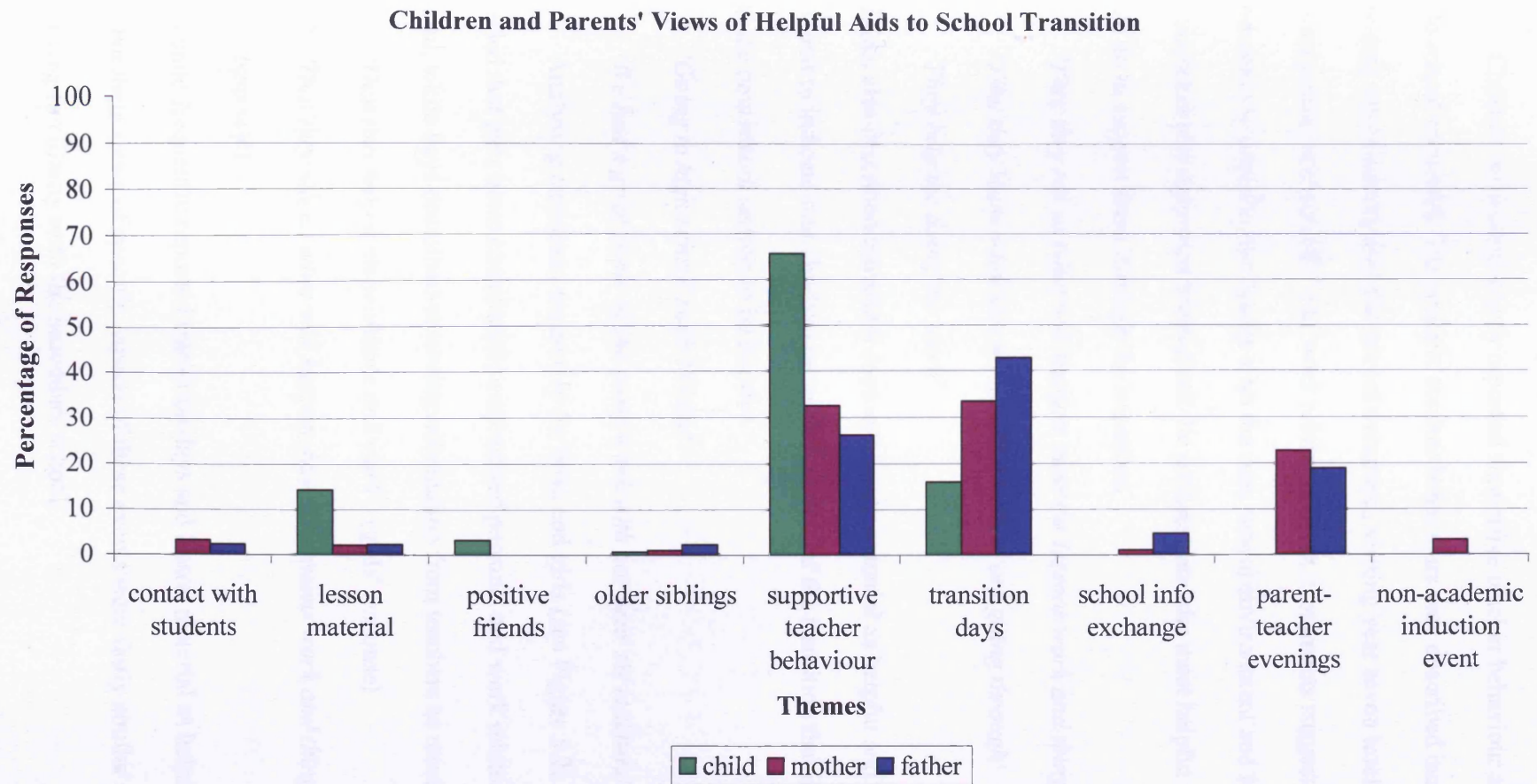


Figure 5.2: Bar chart illustrating helpful themes identified by parents and children

Child responses

Children most consistently reported supportive teacher behaviour as the most helpful aid to school transition. The specific teacher behaviours they described included teachers providing information about the school transition, visiting year seven teachers, encouragement and personal and work related support. Comments suggested that receiving information to improve familiarity with the new school environment and feeling emotionally and academically supported throughout the process were the most helpful things teachers could do to support them through the transition.

'That they tell us what will happen, how the lessons work and things like that'

'That they know what you mean and what you are going through'

'They help me doing my work'.

Children also described transition days and lesson material as helpful and comments again appeared to indicate that children perceived aspects of the transition that improved familiarity with the new school setting to be helpful.

'Going to high school each Friday'

'We had a go at some of the comp work with our year six teachers'

Analysing responses separately for boys and girls (see Figure 5.2i in Appendix 4) revealed that girls more consistently emphasised personal and work related support as helpful, while boys described receiving information from teachers as most helpful.

'That they help with problems and work'. (girls' response)

'That they tell us what will happen, how the lessons work and things like that' (boys' response)

Boys more frequently reported transition days and lesson material as helpful compared to girls but their views of specific aspects of these events were fairly similar and related to improving familiarity with the secondary school.

'Going to the high school each Friday' (boys' and girls' response)

'In school the bridging units because it gives me a good idea of what I will be doing' (girls' response)

'The fact that we've seen some of the work we will be doing and have done some year 7 work' (boys' response).

Finally, children's perceptions of supportive teacher behaviour were analysed in relation to their cognitions pertaining to family relations (See Figure 5.2ii in Appendix 4). Although children who had higher scores on measures of conflict properties, threat appraisals, self-blame attributions and parent-child rejection did not cite supportive teacher behaviour more frequently than their classmates, there was a difference in the types of behaviour they reported most often. Comments indicated that experiencing the most challenging family environment was associated with children reporting teachers providing work related and personal support as most helpful during the transition compared to their classmates who more consistently reported the provision of information about the new school as most helpful.

'Then you say you are scared they tell you it will be ok' (top 10% group)

'I have found the most helpful is where the teachers help when I am stuck' (top 10% group)

'That they explained about [Secondary School] B and they prepared us for secondary school and warned us about different things' (main sample)

Parent Responses

Parents most frequently cited transition days, supportive teacher behaviour and parent- teacher evenings as helpful with very few parents having rated lesson material as important. In terms of transition days, parents' comments mirrored the theme of children's

comments that visiting the high school to improve familiarity was most helpful for aiding transition.

'Weekly visits to high school has been invaluable' (mother response)

'Weekly visits to high school' (father response)

Mothers and fathers consistently described teachers providing information, encouragement and support as helpful; they generally described the provision of information as helpful more frequently than support.

'Talking to them often about what will be expected of them' (mother response)

'Information booklets' (father response)

'Encouraged my child about high school and retold positive stories and advice on how to deal with negative situations' (mother response)

'Year 6 teacher has been exceptional with our son bringing out the best and preparing him for senior school' (father response)

Finally, both mothers and fathers consistently rated parent-teacher evenings as helpful, commenting on the open evenings for parents and children.

'Meetings to let parent and child know what to expect' (mother response)

'Visiting the school and meeting the teachers and touring the school' (father response)

These results illustrate a degree of consistency between parents' and children's views of specific aspects of supportive teacher behaviour and transition days that facilitate a smooth transition.

Helpful Themes Described by Members of School Staff

Figure 5.3 highlights a disparity between primary and secondary teacher responses.

Primary teachers identified school information exchange as helpful followed by lesson material, transition days and parent and staff meetings. Conversely secondary teachers

appeared to have more in common with children's views of what is helpful for the transition, most frequently identifying supportive teacher behaviour followed by transition days and school information exchange.

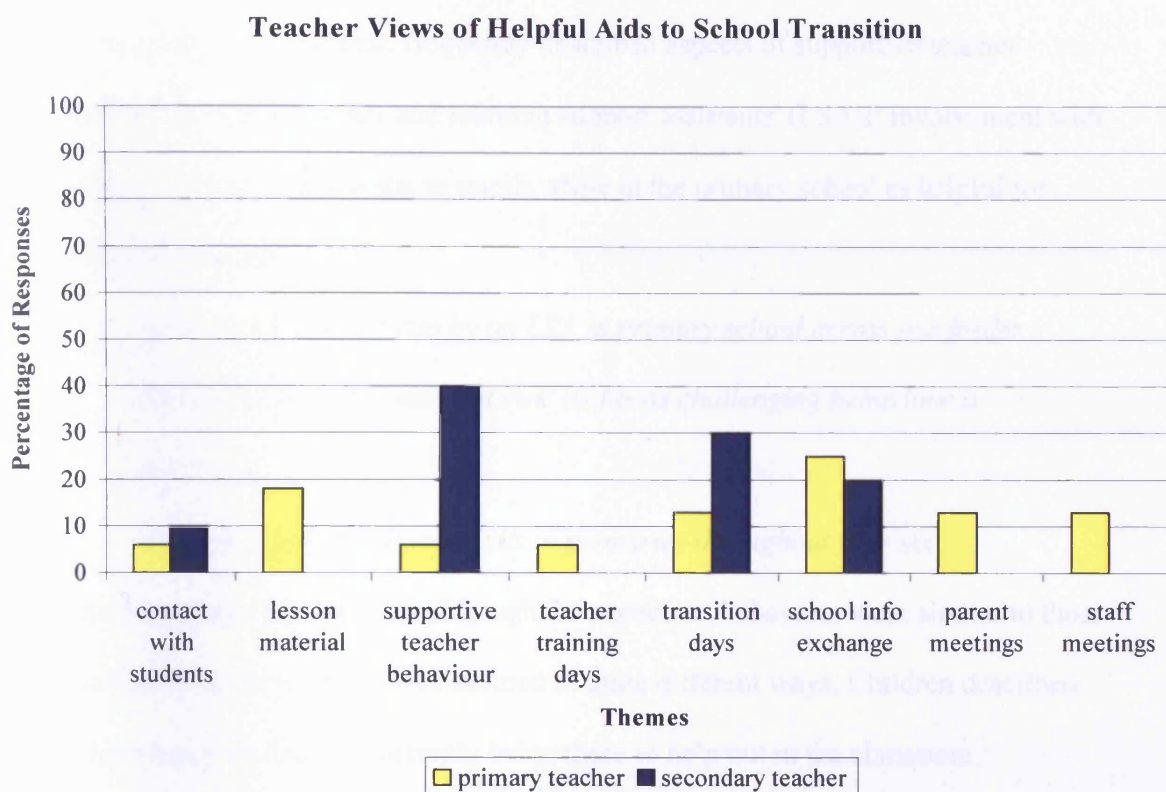


Figure 5.3 Bar chart illustrating helpful themes identified by members of staff in primary and secondary schools

Primary and secondary teachers both commented on the value of school information exchange and transition days for helping children's transitions in similar ways:

'Schools working collaboratively during the school year to share pupil information' (primary response)

'Exchange of information with primary staff' (secondary response)

'Visits to secondary schools by pupils' (primary and secondary response)

The continuity among responses appears to end here. Primary staff consistently described lesson material, in terms of bridging units of work, which begins in Year six and is completed in Year seven, as helpful to improve familiarity.

'Music and maths projects especially valid work started in years 6 completed in year 7 gives continuity and familiarity'

Secondary staff, by contrast, frequently described aspects of supportive teacher behaviour including teacher and learning support assistants' (LSA's) involvement with pupils as well as teacher visits to pupils while in the primary school as helpful for easing the transition.

'Behavioural project run by an LSA in primary school across our feeder school. Those pupils most 'at risk' as far as challenging behaviour is concerned'

'Assistant head of schools visits to primaries throughout year six'

These comments illustrate that although the aspects of behaviour were similar to those identified by children, they were defined in quite different ways. Children described teacher support as teachers actively being there to help out in the classroom.

Secondary teachers described support in a much more formal and targeted way aimed only at those children who were evidencing behaviour problems, which was also echoed in a primary school teacher's comments:

'Anonymous questionnaire on a scale of 1-5 "how do you feel about moving to comprehensive school in September?" Further work then qualified support staff in groups, nurtured children who were feeling apprehensive.'

Least Helpful Aids to School Transition

QU2: 'What have you found least helpful about the things teachers/staff at your/your child's school have done to prepare you/your child/pupils for the move to secondary school?'

Figure 5.4 illustrates the themes identified by children, parents and teachers describing the least helpful characteristics of the school environment to aid the transition. Unlike helpful themes, there is little consistency between raters about factors that are unhelpful to children making the transition to secondary school. Parents and children agree that negative teacher behaviours are unhelpful but parents and teachers also highlight administrative and organisational factors as detrimental for children's successful transition, which children don't mention. Instead, children describe factors more specific to their school experience, such as workload, friends, siblings, poor transition preparation and school environment, as unhelpful.

Unhelpful Themes Described by Family Members

Figure 5.5 supports the findings of Figure 5.4 by demonstrating that the only theme consistently reported by children and parents is unsupportive teacher behaviour. It furthers this finding by illustrating that unsupportive teacher behaviour is the most consistently reported unhelpful aid to school transition reported by children *and* mothers.

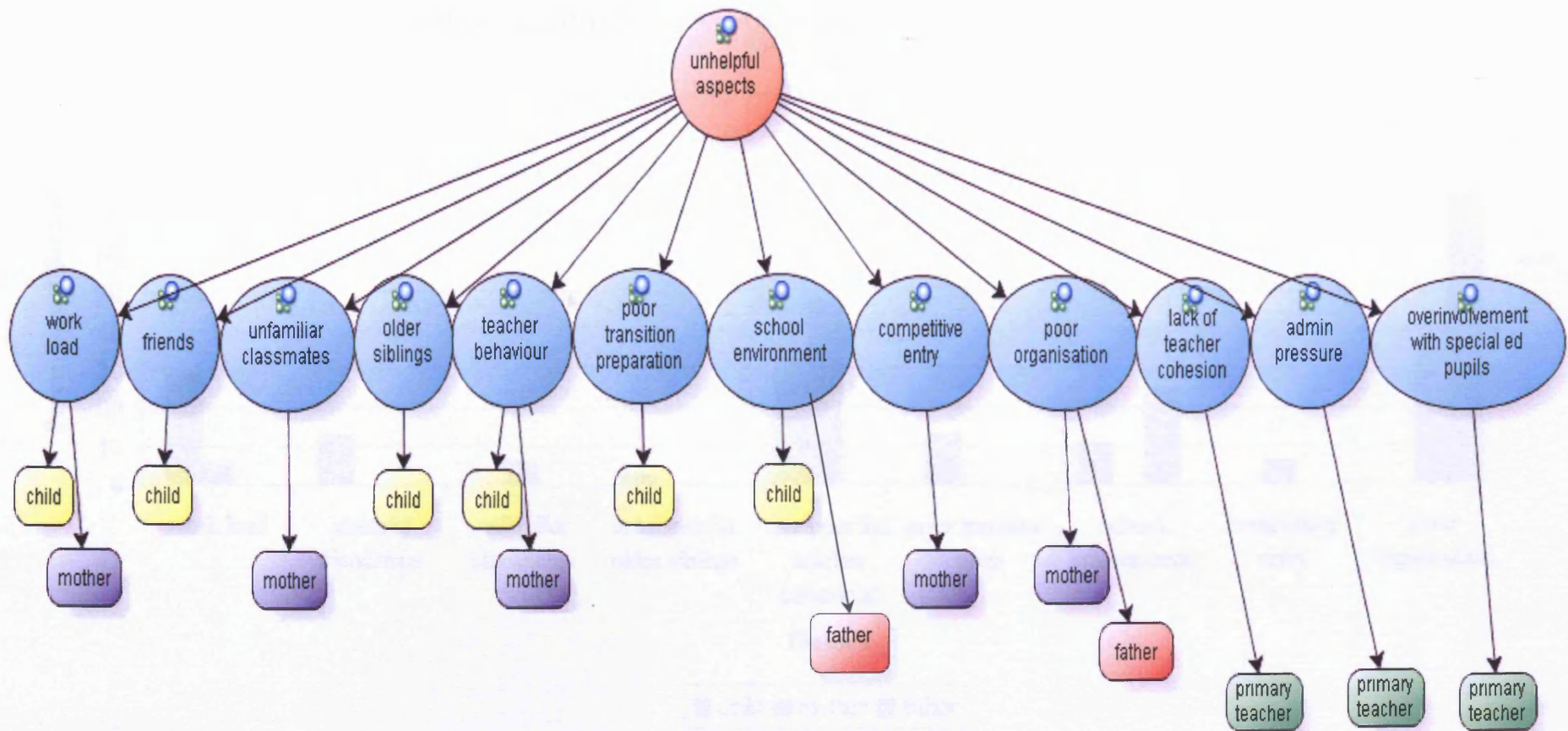


Figure 5.4: Diagrammatic representation of the themes identified as unhelpful by children, parents and teachers

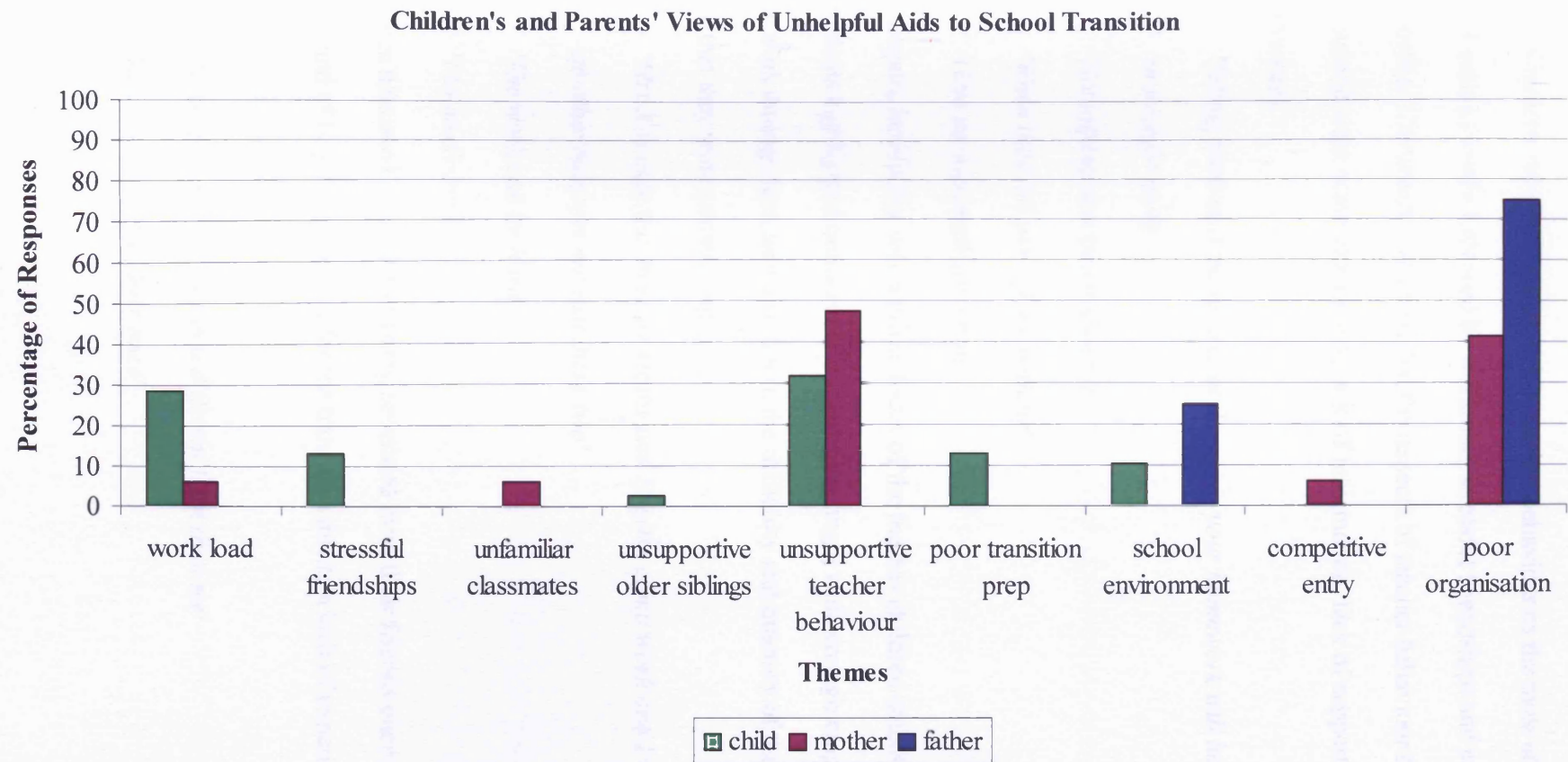


Figure 5.5: Bar chart illustrating themes of unhelpful aspects of the school setting identified by children and parents.

Child responses

Children reported unsupportive teacher behaviour as the most unhelpful aspect of the school setting closely followed by workload, stressful friendships and poor transition preparation. Comments indicated that the aspects of teacher behaviour they perceived to be least helpful were scare mongering, lack of information, lack of support and over-involvement.

'Telling them bad things like at the comp your homework will have to be in straight away'

'Not talking that much about it'

'When they tell you off for nothing'

'Give me too much attention'.

Once again, familiarity was a prime focus of the themes children consistently identified. Comments highlighted concerns about not covering a wide enough range of comprehensive style work during class, and also about the difficulty and quantity of the secondary school work that they were completing.

'Mrs X is only teaching us Maths and English comp work and I want to be able to do other subjects not just these two'

'The work can be hard'

'Too much work'

Children discussed concerns of being separated from their friends once in the secondary school and of being unprepared for the transition due to a lack of experience in the new school

'All my best friends are in a different form than me'

'We've only visited their once'.

Children's responses were analysed separately for boys and girls and illustrated some interesting differences (see Figure 5.5i in Appendix 5). Unsupportive teacher behaviour and workload remained the most consistently reported themes for boys and girls. However, more girls' responses included workload whereas boys more frequently cited unsupportive teacher behaviour as unhelpful. Within these themes boys commented on negative teacher behaviours as most unhelpful for easing the transition whereas girls commented on lack of support.

'Shouting at you' (Boys' response)

'When I didn't understand the work and the teachers was not in the class' (Girls' response).

With regard to workload, girls frequently described not doing appropriate work, which left them feeling unprepared for the transition whereas boys more often commented on the quantity and challenge of prospective work.

'Not doing the activities we are doing when we get to comprehensive school E.

We did the ones we already do' (Girls response)

'The work can be hard', People telling me there's loads of homework' (Boys response).

Finally, children's perceptions of unsupportive teacher behaviour were analysed based on their cognitions pertaining to family relations (see Figure 5.5ii in Appendix 5). Results suggested that children reporting the highest levels of negative family relations more consistently described unsupportive teacher behaviour as unhelpful to the transition than their classmates. When the comments were analysed, children experiencing the top 10 % of negative cognitions pertaining to family relations most consistently commented on teachers' scare mongering, not providing enough information and being over-involved compared to

their classmates who more frequently reported teachers being too strict as the least helpful teacher behaviour.

<i>'Not talking that much about it'</i>	}	(Top 10% group)
<i>'Give me too much attention'</i>		
<i>'Saying it will be hard'</i>		
<i>'Shouting at you' (Remaining sample).</i>		

Parent Responses

Figure 5.5 illustrates that mothers consistently reported unsupportive teacher behaviour and poor organisation as the least helpful aids to school transition. Comments relating to unsupportive teacher behaviour indicated that mothers highlighted several different aspects including scare mongering, lack of support, poor information dissemination and breaking up friendships.

'Reminding children that they will be expected to behave in their new school gives them a fear of a stricter regime'

'Not preparing children enough for secondary school'.

'Lengthy speeches from the head teacher and senior staff'

'Junior school headmasters attitude towards peer groups i.e.mix of friends in tutor groups'.

Fathers more consistently reported poor school organisation as unhelpful than mothers but comments were similar for mothers and fathers and described the lack of opportunities to attend parent-teacher meetings due to poor organisation of their timing.

'Times of parents evenings etc' (mother response).

'The times of the meetings' (father response).

Fathers also commented on the strictness of the new school environment as being unhelpful for children's preparations for the transition.

'Very strict school guidelines'.

Unhelpful Themes Described by Members of School Staff

Teacher responses of unhelpful themes were not considered quantitatively as so few teachers described any aspects of the school setting as unhelpful. Instead, this section describes themes identified in Figure 5.4 and qualifies them with quotes of teacher comments. Primary teacher responses were largely concerned with administration and inter-school information exchange. There was no consistency across primary school teacher responses or between primary and secondary themes. Primary school teachers commented on how pressures exerted by secondary schools and outside organisations were unhelpful to prepare children to move up to their new school, commenting on administration pressures and lack of inter-school cohesion.

'Deadlines for data from LEA. All data is transferred school to school as a matter of course'

'Secondary teachers are not always appreciative of time restraints in primary schools. Literacy transition units are quite demanding'.

Conversely, the solitary theme identified by secondary school teachers related to the role of negative primary school teacher behaviour, stating lack of support as unhelpful to prepare the children for the move.

'Not enough time spent at the primary school to talk to those pupils who are especially concerned'.

Although this response is somewhat consistent with children and mothers' views of the role of unsupportive teacher behaviour as unhelpful to aid the transition, this was the

response of only one secondary school teacher where all four other representatives did not highlight anything unhelpful that staff had done to prepare children for their transition. In addition, it identifies a weakness within the primary system rather than identifying anything unhelpful that secondary teachers had done during the transition process.

Future Actions that could Aid School Transition

QU3: *'What do you think the school could do in the future to help children like you/like your child/pupils prepare for the move to secondary school?'*

Figure 5.6 illustrates the level of consistency among raters for recommendations about the actions schools could take to help children successfully transition in the future. There was consistency across all four raters for more transition days, but parents also agreed with children about the importance of having greater contact with students, work structure being more consistent and receiving supportive teacher behaviour. Once again, teachers' primary focus was on improving transition policy and not their interpersonal contact with students. The most striking finding of these themes is the fact that there is such a strong degree of consistency among family members compared to teachers. This model represents a distinct difference between the home and the school environment.

Future Action Themes Described by Family Members

Figure 5.7 builds on the findings of the model by demonstrating that parents were fairly consistent in their reports of more transition days, better contact with students and supportive teacher behaviour being actions that could aid students transitioning in the future. Of the four agreed themes identified in Figure 5.6, parents were most consistent in their views that more transition days should be included for future transition and least consistent in their views of improving continuity in work structure. Conversely, children most frequently cited supportive teacher behaviour as important to aid future transition and least frequently identified better contact with students.

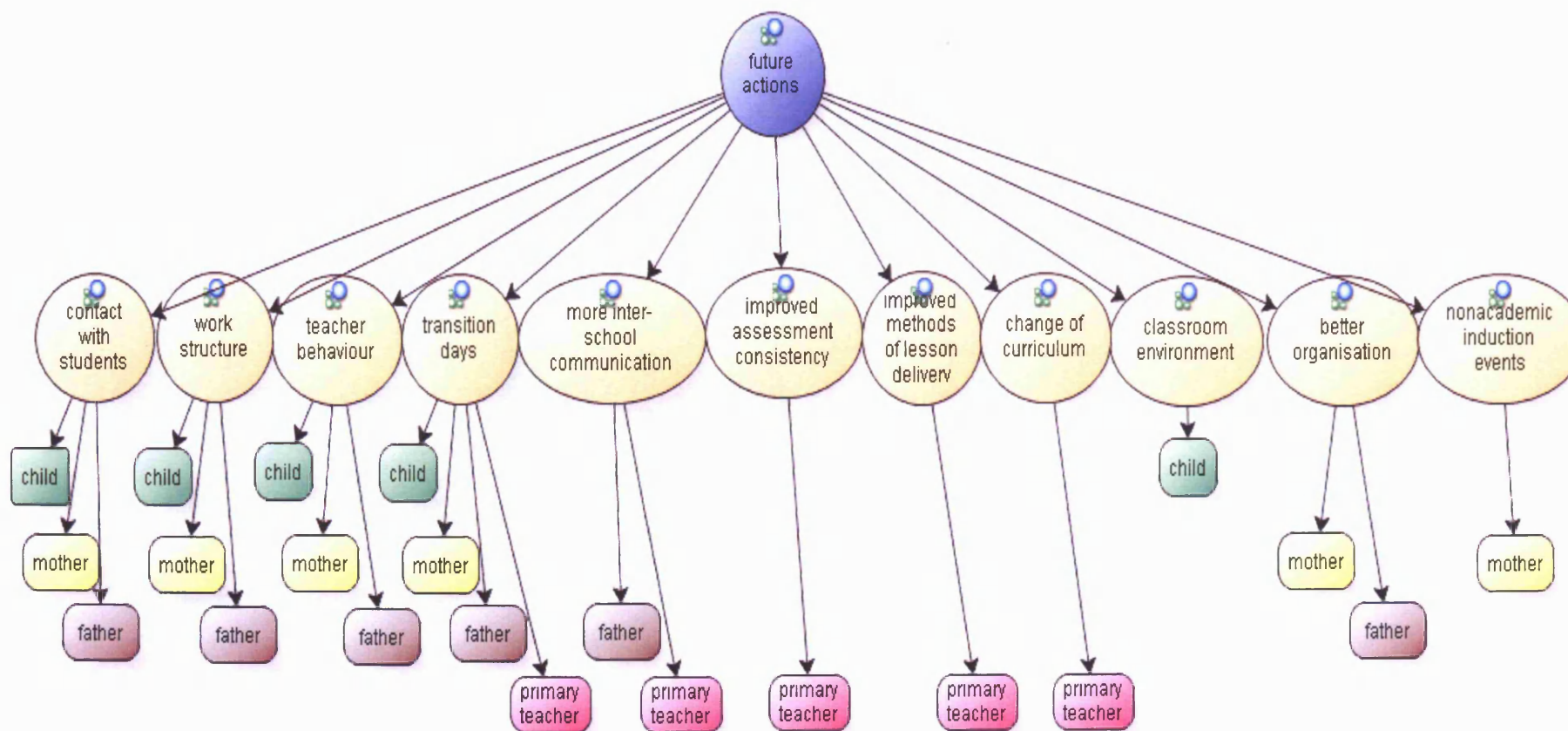


Figure 5.6: Diagrammatic representation of the themes for future actions identified by children, parents and teachers

Children's and Parents' Views of Future actions to Aid School Transition

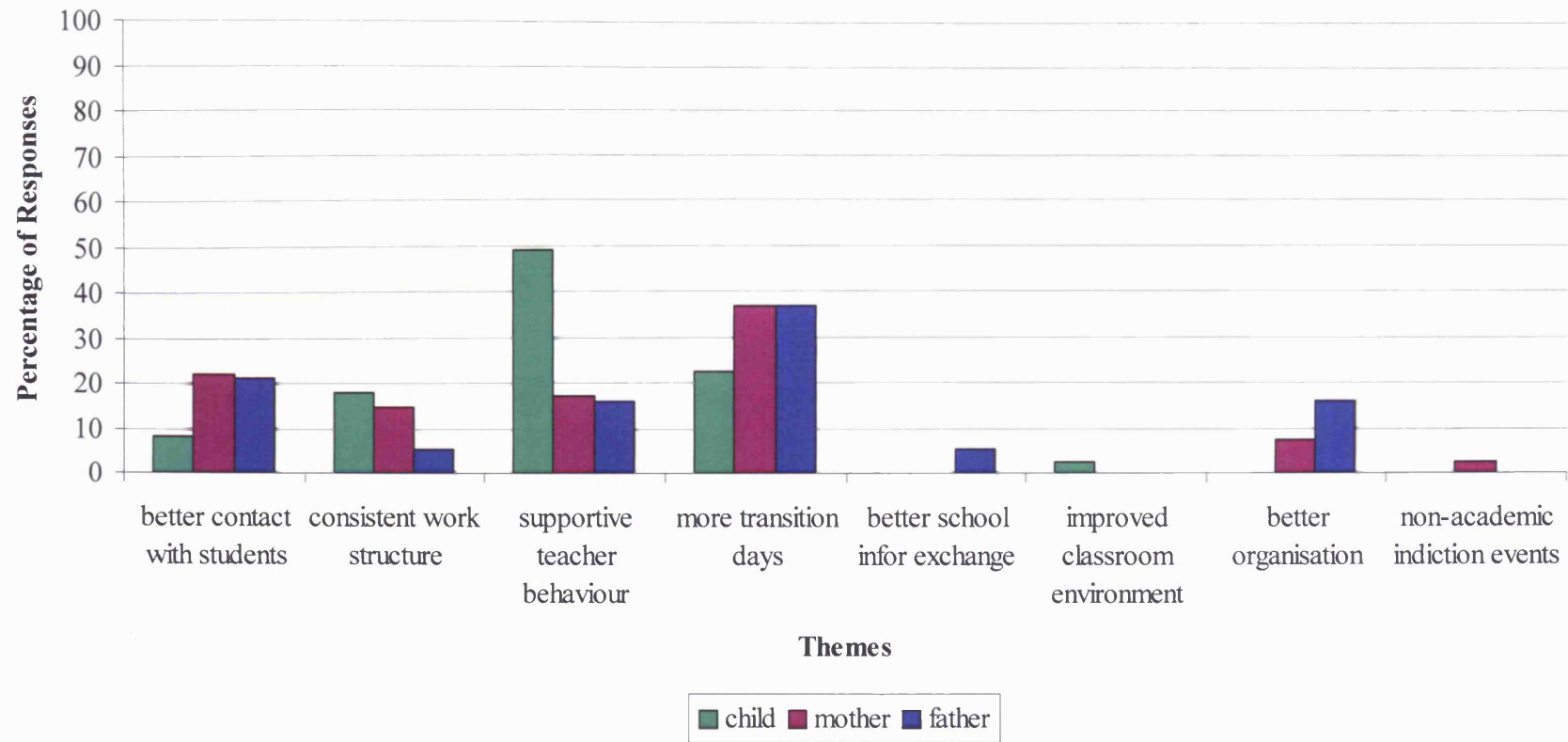


Figure 5.7: Bar chart illustrating the future actions to aid transition identified by children and parents

Child Responses

Themes frequently cited by children followed the pattern of suggesting actions that would improve children's familiarity with the new school and support them through the process. The aspects of supportive teacher behaviour identified as important for the transition process included appropriate support, providing more information, encouragement and visits from high school teachers.

'Don't bottle feed or not push enough so that they're not yet ready to go into high school'

'I think they could prepare them better by explaining what to do better'

'Encouraged them that it's going to be all right'

'Getting a few more teachers to come in so they find it easier and get to know a few more teachers'

Many children also said that teachers should continue to behave in the same way as they were doing a good job of preparing children for the transition.

'They should just carry on doing what they are doing'

For transition days, those children who visited their new school several times stated that they should carry on having multiple visits to the new school whereas children who had only experienced one transition day suggested that more transition days would be helpful.

'Schools should carry on with the trips to the high school on a Friday'

'More time at the actual school'

Children also said that there should be more consistency with the work between schools to better prepare them for the secondary school and that children should have more opportunity to meet other students who were or would be attending the same secondary school.

'Give them work from secondary school to show them what it's like'

'Bring in pupils from secondary school to our school so they can tell us about'

their experience'

Children's responses were analysed separately for boys and girls (see Figure 5.7i in Appendix 6) but the themes identified followed the same pattern for both groups as for children as a whole group including supportive teacher behaviour, more transition days, consistent work structure and better contacts with students. Comments relating to the aspects of these themes were also similar for boys and girls. For example, within teacher behaviour, more boys described teacher information as an important future action compared to girls whereas more girls described teacher support as important. However, both boys and girls commented on how teachers should provide information by talking about the event more and provide appropriate support by pushing them as if they were secondary pupils.

'Tell us a bit more' (boys response)

'Talk more about it' (girls response)

'Some of the teachers could push you harder' (boys response)

'Act like we are in secondary school' (girls response)

Children's perceptions of the role of supportive teacher behaviour as a helpful future action were analysed based on their cognitions pertaining to family relations (see Figure 5.7ii in Appendix 6). Results indicated that children reporting the top 10% of inter-parental conflict and self-blame attributions reported supportive teacher behaviour as important for the future transition more frequently than their classmates in the remaining sample. However, the aspects of this theme that they identified did not differ to those reported by their classmates and included maintaining current transition practices, providing appropriate support, more information and encouragement.

'If you don't understand a question, teachers should go over it with you and test you at the end of the week'

'Teach them lots of things to get them ready for high school'

'Saying all good things'.

Parent Responses

Mothers and fathers identified similar aspects of the themes identified in Figure 5.7. Both parents suggested that children should have more opportunities to visit the secondary school, have more contact with year seven pupils to hear their experiences and teachers should be more focused on easing children's transition anxieties and mentally preparing them for the move.

'Have a few more induction days' (Mother response)

'More induction days-more than 1 day' (Father response)

'Ask year 7 pupils to revisit their junior schools to talk to year six pupils about their experiences' (Mother response)

'More year 7 to visit year 6 to talk about what happened to them' (Father response)

'Ask children individually whether they have any concerns or worries that they want to talk about. Ask them if they have any friends they'd like to be in the same class as' (Mother response)

'Ensure that children are aware of the move in plenty of time to avoid children forming unrealistic views of secondary school' (Father response)

Mothers and fathers also talked about the importance of improving continuity in work structure between primary and secondary school to better prepare children for the step up in expectations, and improving the organisation of the process. Mothers described work consistency as important more frequently than fathers, whereas fathers described organisation more frequently.

'Introduce more structure to lessons in year 6. Introduce homework diaries and increase amount of homework as they receive a lot in year 7'. (Mother response)

'Better introduction into the subjects the new school will teach them' (Father response)

'Help parents to visit by letting them bring younger siblings' (Mother response)

'Anything! Stop leaving it to the recipient secondary school' (Father response)

Future Action Themes Identified by Members of School Staff

Figure 5.8 represents a marked disparity between the views of school staff and children about actions that should be taken to improve the transition process for future pupils. The most consistently reported themes by primary and secondary teachers were better school information exchange and more transition days.

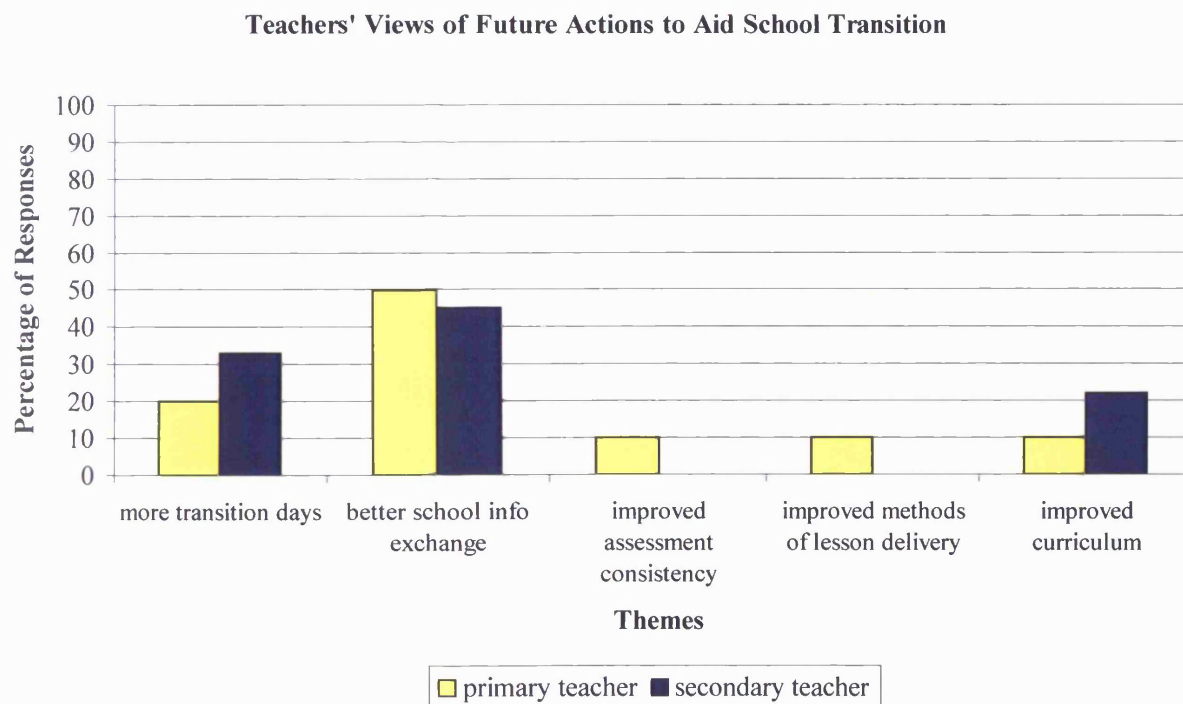


Figure 5.8: Bar chart illustrating future action themes identified by members of school staff

Although primary and secondary teachers reported on transition days as being an important future action to aid transition, only secondary teachers reported on the need for

more opportunities to visit the new school whereas primary school teachers described having longer individual visits.

'More days spent at secondary school' (secondary response)

'The secondary school is proposing a five day transfer session' (primary response)

Primary and secondary teachers had similar views of the type of information exchange that would improve school transition policies and both discussed the need for meetings between primary and secondary members of staff and having joint schemes.

'Staff key stage 2/3 work much closer together in terms of sharing pupil

knowledge and teaching strategies' (primary response)

'Opportunities for year 6/7 teachers to spend quality time in each others classrooms'

(secondary response)

However, primary staff members repeatedly commented on other aspects of continuity in teaching styles including assessment consistency and methods of lesson delivery whereas secondary staff commented more frequently on having an improved curriculum.

'Moderation of assessment standards and techniques across all schools' (primary response)

'Curriculum transition needs further development but this issue is being addressed at the moment' (secondary response).

These comments reflected an emphasis on school policy that was a feature of many teachers' responses.

Discussion

The present study was designed to further understanding of factors that help and hinder children's preparations for one of the most challenging transitions of their lives.

Collectively, the results demonstrate the importance of students' perceptions of teacher

behaviours to orient their preparations for the transition and highlight a disparity between children's, parents' and teachers' perspectives on the hallmarks of supportive teacher behaviour.

Children in the present study described three of the four most consistent factors identified within the transition literature as most and least helpful in preparing them to transition. They included: (1) student-teacher relationships; (2) lesson material and (3) familiarity with classroom or school environment afforded by transition days and bridging units (e.g. Evangelou et al., 2008; Galton, and colleagues, 1999, 2003; Jones & Wassell, 2005).

The Role of the Student-Teacher Relationship

Student perceptions of teacher behaviour were by far the most important and consistently identified helpful and unhelpful aspect of the school transition process. Student-teacher relationships have repeatedly been described as key for supporting children's successful adjustment within school and to challenging school-based tasks (e.g. LaGuardia & Ryan, 2002; Roeser et al., 2000; Wentzel, 1999). However, it has been suggested that existing understanding of the facets of teacher behaviour that are important for students is insufficient and that 'more clarity [of such facets] is needed in arguing for the strength of the relationship-achievement-adjustment connection' (p. 105, Murray-Harvey, 2010).

A recent review found that the facets of teacher behaviour students valued the most included support, fairness, respect, trust, listening and positivity (McLaughlin & Clarke, 2010). The findings of this study showed that support and encouragement were considered important behaviours with children describing both work and personal related support as helpful. Equally, a lack of support and encouragement characterised by a lack of empathy for the challenge children were undertaking were frequently reported to be unhelpful for preparations. Children also described teachers listening to their problems or anxieties about

transition as helpful whereas scare mongering and not being positive or empathetic about the transition experience were described as unhelpful. Perhaps interestingly, one of the most and least helpful behaviours centred on teachers providing information about expectations, standards and structure of the new school. Consistent with previous research that described teachers providing students with information about the new school as key to improving their preparedness for the move (Anderson et al., 2000), the most helpful thing teachers could do to assist transition preparation for children in the present study was to provide information on what they could expect of their new school. Conversely, the least helpful thing teachers could do was not talk about it enough. This finding suggests that during transition children want to be supported but in addition to inter-personal relations they also need their teachers to be source of information to ease their anxieties.

The Role of Familiarity with the School Setting

Transition days and secondary style lesson material were also consistently described as influential for transition preparation. From the comments children made regarding lesson material and transition days, it is clear that they want to feel more familiar with their new school environment by spending more time in the school and completing secondary school level class work in all subjects, not just core subjects. This is a finding that echoes previous work conducted by the Department for Children, Schools and Families (e.g. Evangelou et al., 2008) but that still appears to be neglected in transition based policies with bridging units that are limited to core subjects (e.g. Braund, 2007) and single day induction events. Children also reported lesson material as unhelpful in terms of the quantity and difficulty of some tasks. Consistent with previous findings, this suggests that although they want to have more secondary style lessons, work-related support afforded by teachers may also be important to help children cope with it (McLaughlin & Clarke, 2010).

The Role of Child Gender

The present study expanded these findings further by exploring boys' and girls' views separately. Boys and girls reported the key themes described above to the same degree so that teacher behaviour, lesson material and transition days were the factors most frequently commented on. Consistent with the idea that gender differences follow distinct patterns attributable to gender socialisation differences (e.g. Brody, 2001; Crick & Dodge, 1994; Davies & Lindsay, 2004; Davies & Windle, 1997; Snyder, 1998; Zahn-Waxler, 2000) the present study illustrated some differences in boys' and girls' perceptions of specific aspects of themes. Overall, girls were more interpersonally oriented and concerned about being unprepared for the secondary school, whereas boys were more focused on physically exploring the new school environment and negative teacher behaviours that undermined their social/academic identities within the class. This suggests that the variation in boys' and girls' psychological adjustment to transition (e.g. Blyth et al., 1983; Hirsch & Dubois, 1992; Hirsch & Rapkin, 1987; Pellegrini & Long, 2002) may be a result of different mediating mechanisms linked to instrumental and interpersonal factors of the school environment respectively.

The Role of Perceived Family Relations on Perceptions of School Relations

An additional strength of this study was to consider the impact of children's social cognitions relating to relations within the home on their views of the most influential aid to school transition, relations with teachers. Results illustrated that children reporting the most negative family relations in terms of intense, frequent and poorly resolved inter-parental conflict that they felt responsible for, described negative teacher behaviours, including scare mongering and providing a lack of information, as unhelpful to aid their transition. Conversely these children described supportive teacher behaviours, including personal and

work-related support, as helpful for preparing them for the transition more frequently than their classmates.

In support of previous research, it seems that children's negative self-attributions pertaining to family relations generalise to the school environment and perceptions of student-teacher relationships rather than being limited to the family environment (e.g. Mackinnon-Lewis et al., 1994). It is possible that these children are more likely to perceive social interactions in a negative way demonstrating negative attributions across contexts (Crick & Dodge, 1994). This finding is consistent with conclusions drawn in a recent review which suggested that improving student-teacher relationships around the time of transition may be especially beneficial for the well-being of more vulnerable children (McLaughlin & Clarkè, 2010) who have to cope with negative family relations.

The consistency of findings with previous research marks a clear strength of the present study as the vast majority of existing work considering the role of family factors in children's perception of the school environment is based in the United States (e.g. Dubois et al., 1994; Lord et al., 1994; Seidman et al., 2003). The findings of the present study, therefore, imply that the importance of student-teacher relationships during the transition, especially for children experiencing challenging family relations, may be universal and not limited to children following the American schooling system.

Parents and Teachers Perceptions of the Transition

Finally, the present study considered the views of parents and teachers about the most influential school-based factors for children's transition preparations to strengthen understanding of perceptions of the transition within the home environment compared to within the school environment. Parents were aware of the importance of teacher support and transition days for children's successful transition preparations. However, they tended to place greater emphasis on the role of school transition days than supportive teacher behaviour

as helpful and future action themes. In addition, parents described organisational and policy based issues as influential with fathers describing poor organisation as the least helpful school factor to prepare children for transition. This finding could be a result of parents being more aware of the administration side of the transition process than children. However, the fact that parents described parent evenings that children were invited to as particularly helpful, suggests that their understanding of what is helpful may be somewhat different to children's.

Perhaps unsurprisingly, teachers seemed to have the least in common with children in terms of what they viewed as helpful, unhelpful or required in the future highlighting a strong disparity between the home and school perceptions of the transition process. Members of staff were very focused on specific policies that had been put in place to foster adaptation to transition such as inter-school communication and improving aspects of the curriculum. Although such actions would be likely to improve consistency in work and lesson structure across schools, which would ultimately benefit students, comments described above indicated the distinct focus on policy rather than improving inter-personal student-teacher relationships that exists within the school environment. Previous research has concluded that advancements to the curriculum and the introduction of bridging units are insufficient to improve children's adjustment to secondary school without also improving school-based relationships (Braund, 2007; McLaughlin & Clarke, 2010).

It is interesting that primary teachers did not report a greater understanding of their supportive role as they have been found to have a greater emotional understanding and warmth towards their students than secondary school teachers who are limited in the time they spend with pupils (Hargreaves, 2000). However, this finding is consistent with previous research that has demonstrated how teachers and school principals are less likely to report student-teacher relationships or behaviours to benefit the student as 'in role' behaviours and

more likely to consider them as extras (Belogolovsky & Somech, 2010). The finding that teachers do not report their support as helpful may be a result of their focus on their academic and pedagogic role rather than their inter-personal role towards students. However, improving the support they provide students with prior to the transition may be the most effective way to reduce the declines in socio-emotional and academic well-being following it.

Consistent with previous findings, this study demonstrated inconsistency between primary and secondary school staff in terms of what they perceived to be helpful, unhelpful and what was needed to improve future transitions (e.g. Evangelou et al., 2008; Galton et al., 1999, 2003). In addition, there were cases illustrating a culture of blame from secondary staff claiming that primary staff were not doing enough to support children through the transition. These findings provide support to research which has suggested that primary and secondary teachers have little contact with each other, do not value each others' teaching strategies or perceptions of students' learning abilities (e.g. Galton et al., 1999; Jones & Wassell, 2005). However, an interesting point to note is that findings of the present study also demonstrated inconsistency among primary and secondary staff, with less than half of the staff members within a school domain agreeing on any single point. This would suggest that an initial place to start improving continuity between schools to aid the transition may be to attempt to gain some uniformity at least among primary feeder schools and their receiving secondary school, if this is not possible across an entire Local Education Authority.

In addition, findings in the present study illustrated a distinct inconsistency among children, parents and teachers about factors that are particularly unhelpful to aid children to successfully prepare for the transition. As much as it has been argued that is important to understand the particular facets of the school environment and school-based relationships that help children during this time (McLaughlin & Clarke, 2010), it seems apparent that more information is also required to inform teachers, and policy makers, about what is *not* helpful

to children preparing to transition. Developing a more cohesive understanding across the home-school interface about actions and behaviours that are not helping children to transition may contribute to significant inroads in improving the transition process and in assisting children to adjust more successfully to their new school.

Limitations

The present study has provided further insights into the specific facets of school characteristics that help and hinder children to make a successful transition from the point of view of family members and school staff. Using a purposive sample and employing a rigorously administered qualitative analysis using deductive and inductive content analysis, findings can be considered representative of a transitioning population and generalisable (e.g. Seale & Silverman, 1997; Goulding, 2005). However, there are three main limitations that need to be considered with the present study.

First, the data was generated by asking three fairly leading questions as part of a questionnaire rather than as part of an interview or focus group, which are more common procedures for collecting qualitative answers to specific inquiries (e.g. Goulding, 2005; Sim, 1998; Sofaer, 1999). The present study was designed to identify answers to a specific topic by asking structured questions much the same as the aims of focus groups and structured interviews (e.g. Sim, 1998; Sofaer, 1999). However, the aim was to generate data that had the potential to inform future school transition policies. It was, therefore, necessary to work with a large group of participants from a range of school settings in order to improve the external validity of findings so that they could be generalised to a wider population in a similar way to quantitative data (Flick, 1998). Focus groups and interviews are typically conducted with small samples (e.g. Sim, 1998) because of the time it takes to gather and analyse the data

(Luna-Reyes & Anderson, 2003) and although they have been described as more valuable they are less representative of the wider population (Seale & Silverman, 1997).

In addition, questionnaires were used as opposed to interviews as this study employed traditional scientific research criteria, which aims to minimise investigator bias in the collection of data (Quinn-Patton, 2002). By using open-ended questions in a confidential questionnaire, researcher bias was minimised. As a result, participants should be more likely to have provided a true and typical range of views, improving the representativeness of the findings (Astin & Long, 2009).

The second limitation to consider is that the majority of staff members in this study were either head masters, heads of years or transition co-ordinators who generally tend to have a more business-like approach to the school environment compared to teachers in non-management roles (Belogolovsky & Somech, 2010). It is possible that if the academic staff had all been class teachers there may have been more of an understanding of the importance of their role as a source of support or carer emerging in the data. However, both primary and secondary teachers who commented on the importance of supporting vulnerable children through the transition referred to an intervention that was run by Learning Support Assistants, rather than actual teachers, and was very formal. Moreover, the finding that academic members of staff are more focused on policy and administration based aspects of transition is consistent with previous work (e.g. Evangelou et al., 2008; Galton et al., 2003). It seems, therefore, that teachers may either be genuinely unaware of the importance of interpersonal support between them and their students for children's successful preparation for the transition, or just consider organisation level behaviours to be more important.

The final limitation to be considered relates to the presentation of results. This chapter was designed to employ a qualitative analysis that added richness and a deeper understanding of the specific facets of school based factors that influence children's transition experience

(Flick, 1998; McLaughlin & Clarke, 2010; Murray-Harvey, 2010). Using graphs to represent numerical aspects of the data may be considered quantitative in approach rather than qualitative. However, the decision was made to include graphical representation of the data for several reasons: 1) graphs were used to ensure representativeness of the data by demonstrating frequency of responses to show that all emergent themes were considered and not just the rare themes that told an original story (Seale & Silverman, 1997); and 2) qualitative and quantitative methods have long been described as complimentary and capable of generating a more holistic picture rather than distinct methods of analysis (e.g. Denzin, 1978; Hanson & Grimmer, 2007; Langhout, 2003; Patton, 2002; Rutter et al., 2010). The themes that have been generated in this study, particularly in relation to specific teacher behaviours and children's views of what does not help them to prepare for the transition, could be effectively employed in future quantitative research to investigate the extent to which they generate to a large representative sample of schools (Rutter et al., 2010). Resulting evidence could then be used to accurately inform policy and practice and improve the stage-environment fit between children's needs and level of support provided by the school environment (Eccles et al, 1993, 2004) during the transition process, benefiting children across a broad range of schools.

Summary and Conclusions

In summary, the transition to secondary school is often a time of change, stress and isolation when children need consistency, support, and positive teacher relationships (Tobbell, 2003). It is also a time of poor communication between (and among) primary and secondary schools and between the home and school environment (Galton et al., 1999; Jones & Wassell, 2005) at a time when children would benefit from increased communication to smooth the transition by addressing contextual and developmental needs (Eccles et al., 1991, 1993, 2004; Galton et al., 1999; Jones & Wassell, 2005).

The most important conclusions to be drawn from this study are that children want to be supported and encouraged by their year six teachers. The student-teacher relationship is optimally characterised by encouragement, personal *and* work-related support, listening, providing information about the new school and trying to keep it a positive rather than frightening experience. This finding may be especially true for children who are experiencing heightened levels of conflict within the home that they feel responsible for and who appear more vulnerable during school transitions (McLaughlin & Clarke, 2010).

The results also demonstrate that children want to feel familiar with their new school environment by having more contact with the students in their form class and new school in general, more opportunities to spend time in their new school and complete the type of work they will be doing in multiple subjects prior to the move. In addition, they want their teachers to help them gain this familiarity by openly talking about the new school, easing their anxieties and providing them with guidance and assistance when completing higher-level work.

Collectively, these findings can be applied to interventions to foster adaptation to secondary school by improving the level of familiarity children feel they have with their new school and enhancing the support they have from their teachers. Such actions may reduce children's sense of anxiety and potentially inhibit the decline in emotional, academic and behavioural difficulties that have been found to occur following the transition (e.g. Alspaugh, 1998; Blyth, et al., 1983; Hirsch & Rapkin, 1987; Isakson & Jarvis, 1999; Lohaus, et al., 2004; Reddy et al., 2003; Wigfield et al., 1991).

CHAPTER 6

Through a series of interconnected studies this thesis has explored the role of children's perceptions of family relations and school-based factors in orienting indices of their school-based functioning during the transition to secondary school. It has investigated the extent to which perceptions of the inter-parental versus parent-child relationship explain variation in externalising problems, anxiety about making the transition and the perceived role of teacher behaviours as helpful or unhelpful in preparing children to transition. It has also highlighted the unique impacts of specific facets of the school environment that orient preparations for the transition to secondary school and are associated with school-based externalising problems in the context of inter-parental conflict. This chapter presents an overview of the direction of investigations that this thesis has followed, summarises the key empirical findings and discusses methodological and measurement issues related to the studies included in the thesis. This chapter also delineates directions for future research, policy and practice by highlighting strengths and weaknesses of current political and practice procedures, in light of the findings presented.

Summary of Key Findings

This thesis began by discussing the social, emotional and financial costs of externalising problems located primarily within the school environment to the child, the family and the community. A primary aim was to explore the role of family factors that have been identified as contributing to variation in externalising problems in order to identify targets for intervention and family based policies. To investigate the pathways through which family relations are associated with children's externalising problems during a key period of life transition, this thesis combined two

key literatures to examine the relative role of children's perceptions of their parent's relationship and their relationship with their parents. Chapter 1 delineated the historical perspectives of the pathways through which the inter-parental relationship can orient children's behavioural development and illustrated that family relations can influence children's school-based adjustment. It was concluded that inter-parental conflict was associated with increased externalising problems both directly and indirectly via a spill over effect from the quality of inter-parental relations to parent-child relations. Furthermore, specific facets of parenting behaviour, including hostility, rejection and neglect or detachment, were identified as mediators of the relationship between inter-parental conflict and children's externalising problems. However, Chapter 1 illustrated that parenting practices often did not fully mediate the relationship between inter-parental conflict and externalising problems.

In response, Chapter 2 introduced the role of the child, in terms of their social cognitions relating to inter-parental and parent-child relationships, in the association between inter-parental conflict and externalising problems. Conclusions were drawn to suggest that self-blame attributions were a particularly salient mediating mechanism linking inter-parental conflict to externalising problems during late childhood and early adolescence. Chapter 2 also highlighted the importance of considering child and parent gender as further accounting for variation in relationships between inter-parental conflict, cognitions and externalising problems. Finally this chapter, developed themes identified in Chapter 1 regarding the role of life transitions in shaping family relations and child functioning. It discussed literature identifying the transition to secondary school as a particularly challenging time for children and their families and illustrated the paucity of research that had explored the mechanisms through which inter-parental conflict was associated with children's adjustment during

this transition. Together, Chapters 1 and 2 identified unanswered questions relating to the role of children's cognitions about the inter-parental versus parent-child relationship for orienting children's externalising problems in secondary school. These questions provided a theoretical platform from which to develop the empirical studies that followed.

Collectively, Chapters 3, 4 and 5 provided an insight into the pathways through which children's understanding of family relations are associated with their behaviour and adjustment in school. Chapter 3 highlighted the importance of young adolescents' cognitions pertaining to the inter-parental *as well as* the parent-child relationship. For the full sample of adolescents, self-blame attributions and parent-child rejection mediated the relationship between inter-parental conflict and externalising problems. When analyses were conducted separately for boys and girls and included mother and father-child rejection, results illustrated key differences influencing the pathways linking inter-parental conflict to adolescents' externalising problems. Perceptions of the mother-child relationship and self-blame attributions mediated the association between inter-parental conflict and girls' externalising problems whereas perceptions of the father-child relationship and threat appraisals predicted boys' externalising problems. This chapter provided support for research that has suggested that fathers are important, especially for boys' well-being (e.g. Cowan & Cowan, 2008; Nelson & Coyne, 2009; Rutter et al., 2010; Webster-Stratton et al., 2001) and that mother-daughter and father-son relationships may be qualitatively different in the context of stressful situations such as inter-parental conflict (e.g. Kaczynski, et al. 2006; Shelton & Harold, 2008). In addition, this chapter suggested that adolescents' perceptions of these relationships may be equally as important as their perceptions of the meaning of inter-parental conflict, which

occurs following transition, for explaining variation in levels of externalising problems.

Chapter 4 added to these findings in several ways. First, results demonstrated that self-blame attributions were a consistent predictor of externalising problems assessed one year later, in secondary school, when children were exposed to inter-parental conflict prior to the school transition. Second, in the context of pre-transition inter-parental conflict, self-blame also predicted specific indices of scholastic functioning relating to the transition, which were, in turn, associated with school-based adjustment and externalising problems. Including children's perceptions of the school-based factors, transition-related anxiety and perceived adjustment to secondary school, increased the proportion of explained variance of post-transition externalising problems assessed in the context of inter-parental conflict.

Both Chapters 3 and 4 supported research suggesting that externalising problems steadily increase across the transition, reaching a peak during early adolescence (Pellegrini, 2002; Pellegrini & Bartini, 2000). Collectively the chapters illustrated an increase in externalising behaviour between year 6 (pre secondary school transition) and Year 9 (pre GSCE transition) with the highest maximum score of aggressive behaviour within the clinical range, and highest overall mean levels of externalising problems being recorded in Year 9 pupils. Although the change in mean levels of externalising problems over time were minimal, both chapters illustrated that children's social cognitions accounted for a proportion of this change predicting variation in Time 2 externalising problems over and above initial symptom levels. These results provide support for the need to consider children's perceptions of family relations when seeking to ease the transition and reduce school-based behaviour problems.

Chapter 5 took a further step towards providing a holistic investigation of the home and school-based factors that contribute to children's adjustment during school transition. Employing a thematic analysis of qualitative data, this chapter investigated the aspects of the school environment that contribute to children's preparations for the transition. It also considered the influence that family relations have on children's views of the most helpful and unhelpful factors. This chapter was grounded in school transition literature but expanded existing findings by illustrating specific facets of school-based factors that have been described as helpful or unhelpful to aid transition. Results illustrated that teacher behaviours, including levels of personal and work related support, the provision of information about the secondary school, and offering encouragement about children's abilities, were most consistently described by children as helping or hindering their preparations for the move. Children also frequently described factors that improved familiarity with the new school structure and environment, such as school transition days and completing secondary school style work, as helpful for their transition preparations.

Parents, especially mothers, appeared to be quite aware of how helpful or unhelpful teacher behaviours, transition days and lesson material were for children's preparations. Teachers, however, appeared to have the least in common with children in terms of their understanding of what helped and hindered children during this time. Their focus was consistently on administrative factors, such as inter-school communication, with little attention being given to their role as a source of practical and emotional support to ease children's anxieties and smooth the transition process. There was also little consistency across or among primary and secondary school domains illustrating a clear target for intervention strategies designed to facilitate inter-school consistency and minimise the challenge of transition. Lastly, this chapter

demonstrated distinct differences between perceptions of teacher behaviours as helpful and unhelpful for those children experiencing the most distressing family relations compared to their classmates. Consistent with previous findings (e.g. McLaughlin & Clarke, 2010), results suggested that those children who perceived high levels of inter-parental conflict and rejecting parenting behaviours, were more frequently affected by their teachers' behaviour prior to the transition to secondary school. This finding also provides support for the concept that trait negativity or hostile attribution biases generalise across social domains (e.g. Crick & Dodge, 1994; Fincham & Bradbury, 1992), and suggests that targeted interventions could be used to reduce the challenge of school transition for such students by helping them to reappraise social situations.

Collectively, the findings of the thesis have informed a theoretical understanding of links between the home-school interface and child adjustment that can be summarised in Figure 6.1.

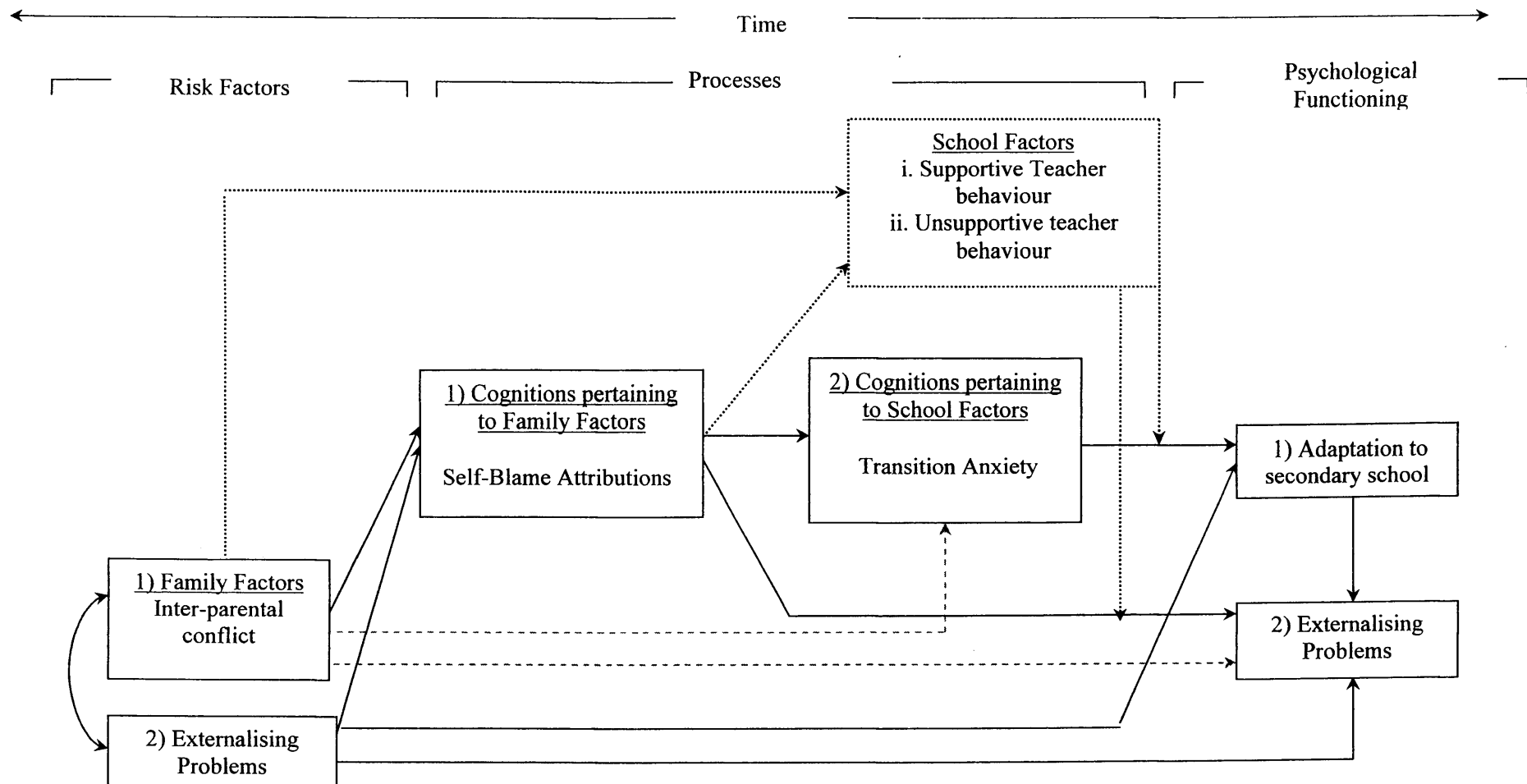


Figure 6.1: Revised model summarising the key pathways and processes linking inter-parental conflict to post transition externalising problems identified within the thesis

As Figure 6.1 shows, several results to emerge from the analyses differed from the hypothesised pathways identified in Figure 2.3. The four main differences illustrated in this model concern 1) the social cognitions pertaining to family factors, 2) the dual pathway linking cognitions to externalising problems, 3) the lack of gender as a moderator and 4) the proposed role of only teacher behaviour as a moderator.

Perhaps the key finding to be reflected upon is the fact that self-blame was the only consistent mediator of the relationship between inter-parental conflict and externalising problems across both samples. Self-blame was also the most consistent cognition informing perceptions of teacher behaviour in relation to transition preparation. In support of the findings emanating from the small but emerging body of research (e.g. Ghazarian & Buehler, 2010; Harold et al, 2007), it appears that children's attributions of responsibility for inter-parental conflict are the most salient predictor of school based functioning, including externalising problems.

Conceptually, this finding may reflect the impact of the typical reorganisation to family dynamics that occurs during this developmental transition. Patterns of rising externalising problems appear to co-occur with rising levels of child centred inter-parental conflict around the transition to adolescence and secondary school (e.g. Eccles et al, 1993; Harold et al, 2001; McGue et al, 2005; Pellegrini, 2002; Pellegrini & Bartini, 2000; Smetana et al, 2006). As such, it is plausible that self-blame would become the most salient mediating mechanism for young adolescents as it has been strongly associated with child centred inter-parental conflict (Grych, 1998) as well as externalising problems (e.g. Ablow et al, 2009; Fear et al, 2009; Fosco & Grych, 2007; Grych et al, 2003; McDonald & Grych, 2006), as discussed in chapter 4.

Concretely, the findings of this thesis suggest that during the transition to secondary school, young adolescents may be exposed to increased levels of child-

centred inter-parental conflict, which will be associated with externalising problems via their self-blame attributions. Additional research is required to confirm this but findings imply that, in this developmental context, it is the content of inter-parental conflict, and the responsibility attributions that accompany it, rather than the level of threat or impairment to parent-child relations, that may be more predictive of school-based maladjustment.

The second difference to be noted is the dual pathway linking self-blame to externalising problems. Results indicated that while self-blame attributions maintain a direct effect on externalising problems, they also exert an indirect effect. In the context of inter-parental conflict, self-blame was associated with heightened levels of transition anxiety, which predicted post transition externalising problems via poor adaptation to the new school environment. It is recognised within clinical practice that externalising problems can often be a product of anxiety surrounding a novel situation and/or the individual's perceptions of their ability to perform and cope with the associated challenges (e.g. Ball, Bush & Emerson, 2004; Griffiths, 2010). This finding is supported and extended by the present studies, illustrating that heightened levels of anxiety about school transition are a risk factor for externalising problems operating via perceptions of poor adaptation to the novel school environment. The dual pathway presented in Figure 6.1, therefore, identifies both cognitions pertaining to family *and* school features as risk factors and potential targets for intervention.

Finally, the change in identified moderators between Figures 2.3 and 6.1 must be discussed. Gender is no longer identified as a moderator as it did not act as a significant moderator of pathways from inter-parental conflict to self-blame or from self-blame to externalising problems in either of the samples. Previous research has suggested that girls are more likely than boys to feel responsible for conflict, which is,

in turn, associated with externalising problems (e.g. Brody, 2001; Cummings et al, 1994; Gych et al, 2003; Zahn-Waxler, 2000). However, although Chapter 3 indicated that self-blame was a significant predictor of externalising problems for girls and not for boys, this pathway was not significantly moderated by gender due to large variations in scores for both boys and girls. Therefore, by only including self-blame as a mediating cognition, gender could not be considered a moderator. In addition, it is proposed that self-blame can act as a consistent mediator of the link between inter-parental conflict and externalising problems for girls and boys making this developmental transition, as suggested by the findings for full sample analysis in both Chapters 3 and 4.

The last change to be considered pertains to the proposed moderator emanating from the qualitative analysis. Despite the qualitative data not informing quantitative analyses in this thesis, the key finding is considered an important direction for future research to identify factors that can help young people through this transition. Children's perceptions of supportive and unsupportive teacher behaviour were consistently identified as orienting preparations for school transition, particularly for children experiencing the highest levels of perceived inter-parental conflict that they felt responsible for. Research highlights the importance of the quality of student-teacher relationships as a key factor in children's school based functioning (e.g. Hamre & Pianta, 2001; Ladd & Burgess, 1999; Murray-Harvey, 2010; Pellegrini, 2002; Pellegrini & Bartini, 2000; Wentzel, 1999; Wigfield et al, 1991). Furthermore, it has been suggested that teachers are a stable non-parental role model for young adolescents and that their ability to provide support and guidance is especially important for promoting school-based functioning and well-being when there is a lack of support within the home environment (e.g. Eccles, 2004; Eccles,

Lord & Roeser, 1996; Murray-Harvey, 2010; McLaughlin & Clarke, 2010; Roeser et al, 2000). When this research is coupled with the findings of Chapter 5, it is proposed that teacher behaviour is perhaps the most important school-based factor that could interact with children's perceptions of family relations to orient their preparation for, and adjustment to, secondary school. As a result, it maintains a place in Figure 6.1 but is distinguished as a proposed, rather than concrete finding, to reflect the fact that it has yet to be empirically tested.

This model, and the research that informs it, illustrates several targets at which policy and practice could be successfully targeted to assist children making the transition. Despite the advances this thesis has made for the understanding of associations between family relations and children's school-based adjustment during a key period of normative life stress, there are some shortcomings that need to be considered.

Limitations and Future Directions

The methodological limitations of the studies conducted in this thesis, such as single rater bias, the assumption of causality among concurrently measured constructs and the use of questionnaires as opposed to interviews, have been addressed in each of the respective chapters and will not be re-evaluated here. The main aim of this section is to illustrate the theoretical limitations of the conclusions that have been reached and future directions for research.

The key limitation is that this thesis has not empirically tested the moderating effect of key school-based factors, identified as easing the transition, in the relationship between family functioning and children's externalising problems. A primary aim of this thesis was to consider the inter-play between the home and school

environment for orienting children's school-based externalising problems across the transition. Results have illustrated that all children, but perhaps especially emotionally vulnerable children, place a great deal of importance on supportive teacher behaviours to help them prepare for the transition (Chapter 5). In support of this finding, there is a wealth of research documenting how influential supportive student-teacher relationships are for indices of children's emotional, behavioural and scholastic well-being, especially during early adolescence and the transition from primary to secondary school (e.g. Baker, 2006; Eccles, 2004; Hamre & Pianta, 2001; Roeser, Midgely & Urdan, 1996; Wentzel, 2002).

Children who reported experiencing the highest levels of negative cognitions pertaining to family relations most frequently described teachers providing personal and work related support as helpful to prepare them for the transition. Moreover, research has suggested that such teacher behaviours are key for facilitating successful transitions and minimising negative reactions to transition including behavioural problems (e.g. Anderson, et al., 2000; Eccles, 2004). It is therefore considered a limitation that this thesis was unable to explore the moderating properties of teacher support in the models that were tested because of a lack of a standardised, valid measure of teacher support. To address this limitation and more thoroughly explore the role of the home-school interplay, future research should seek to develop a specific measure of supportive behaviour for *one* teacher, such as the year six teacher in primary school or the form tutor in secondary school.

In the Welsh Family and School Transition Studies, a measure of school support from the Iowa Youth and Families Project (Melby et al., 1998) was used that asked questions about the adults in the school rather than just one teacher. Findings of this thesis and current research seem to indicate that it is children's relationship with

their year six teacher that is important for their preparedness for the transition to secondary school. Similarly, declines in closeness to a teacher across the transition have been associated with declines in motivation and increased behavioural problems (e.g. Anderson et al., 2000; Eccles and colleagues, 1991, 1993, 2004; Murray-Harvey, 2010). Employing a questionnaire tailored to one specific teacher may, therefore, be more likely to elicit a true representation of any buffering effects that supportive teacher behaviour has. Measures of student teacher relationships do exist and have been successfully applied to the study of student relationships with a single teacher (e.g. Student-Teacher Relationship Scale; STRS, Pianta, 1992; Pianta & Nimetz, 1991; Pianta & Steinberg, 1992). However, the STRS is traditionally used to ask teachers about their perceptions of their relationships with students rather than to assess students' perceptions. In addition, this measure has been used with elementary-school aged children (Hamre & Pianta, 2001) but not specifically with children making the transition into secondary school. More work is therefore required to apply the findings of Chapter 5 to develop and validate an effective measure of positive and negative facets of the student-teacher relationship according to students who are preparing to make, or have experienced, the transition from primary to secondary school.

A second limitation is the use of relatively homogeneous samples across studies, which limited the investigation of the role of the home-school interface across different family constitutions. Previous research has illustrated how the level of involvement that parents have in their child's education can vary as a function of social economic status. Lower SES has been described as a risk factor limiting parents' ability to support their children emotionally and academically (Rice, 2001). Differences in parental involvement have been associated with variation in difficulty

transitioning (Anderson et al., 2000) and declines in motivation and academic achievement in secondary school (e.g. Eccles & Harold, 1993; Hill and colleagues 2004a, b, 2009). In addition, a great deal of research has illustrated that economic strain and low social economic status has been linked to declines in the quality of inter-parental and parent-child relationships as well as indices of children's mental health, behaviour and academic achievement (e.g. Barnes et al, 2006; Conger and colleagues 1992, 1994, 2000; Ford et al., 2003). Variation in social economic status is therefore likely to be associated with children's increased exposure to inter-parental conflict, parental rejection and heightened transition anxiety and problems adjusting to secondary school. To explore the relative impact of social economic status and identify whether children of lower SES are at heightened risk of presenting increased school-based externalising problems in the context of inter-parental conflict, the models presented in this thesis could be re-tested with a more socio-economically diverse sample. Stacked model comparisons could then be conducted to assess whether inter-parental conflict was associated with externalising problems via different pathways and, indeed, whether teacher support was a more or less protective factor in this context for children from different social economic groups.

An additional limitation of employing such a homogenous sample was the fact that the majority of children were living with both biological parents. Due to the nature of the research questions being asked it was important to study children who could report on levels of inter-parental conflict and relations with both parents. Two parent families therefore comprised the majority of the samples used. In addition, the majority of these families were comprised of two parents who were biologically related to their children and did not permit for comparisons among other types of two-parent families such as step, adoptive or assisted reproduction families.

Research has shown it is that the quality family relationships, including levels of inter-parental conflict, that orient child adjustment over and above family type (e.g. Borrine, Handal, Brown & Searight, 1991; Harold & Murch, 2004; Kelly, 2000) but many children living in step-and even single parent families report higher levels of inter-parental conflict than their counterparts in intact families (e.g. Barber & Lyons, 1994; Borrine et al., 1991; Dunn et al., 1995; Hanson et al., 1996; Noack et al., 2001). In addition, traumatic or stressful family experiences have been associated with declines in parenting quality that may account for child adjustment problems over family type. For example marital breakdown has been associated with declines in parenting quality that persist for years after a divorce (Hetherington et al. 1989, 1998; Kelly & Emery, 2003). Parent-child negativity has been found to account for variation in child psychopathology over and above family type (O'Connor, Dunn, Jenkins, Pickering & Rasbash, 2001) and in the context of inter-parental conflict, parent-child rejection appears to be particularly pertinent for indices of adjustment for children living in step-parent families (Shelton, Walters & Harold, 2008).

Research has also explored the role of infertility struggles and In Vitro Fertilisation resulting in one or more parents not being biologically related to their children, in the quality of parent-child relationships and child development (e.g. Golombok et al., 1999, 2001, 2003). A collection of such studies suggested that parent-child relationship qualities and child cognitive and behavioural development were largely similar across genetically and non-genetically related families (e.g. Cook, Bradley & Golombok, 1998; Golombok, Murray, Brinsden & Abdalla, 1999; Golombok et al., 2002). It was concluded that the main difference in parenting strategies between families who had experienced assisted reproduction and natural conception families was a positive one with mothers expressing consistently more

warmth and emotional involvement towards their children (e.g. Golombok et al, 2002; Owen & Golombok, 2009). However, one study did demonstrate an exception to this finding illustrating a higher proportion of IVF mothers compared to adoptive and natural conception mothers, who were enmeshed with their 11-12 year old children (Golombok et al., 2002).

This finding suggests that some children born through assisted reproduction may be at increased risk for experiencing a poor stage environment fit (Eccles et al, 1993) between their emotional needs for, and maternal provision of, autonomy during the transition to secondary school. Given the growing concern in the family climate and cognitive and behavioural development of children born through assisted reproduction (Golombok et al., 1999, 2002) this family type marks an additional comparison group that could be considered in future research exploring links between inter-parental conflict and children's externalising problems following the transition. To examine the potential differences in the pathways and processes linking inter-parental conflict and externalising problems during the transition to secondary school, future research could actively recruit sufficient numbers of biologically related, step, single and non-genetically related family types and re-test the theoretical models presented in Chapters 3 and 4.

The final limitation of the empirical chapters is a minor consideration but one that may shed more light on the home-school interplay in future work. The samples employed attended many schools in the South Wales area and during the school transition study, in particular, it was obvious that each school varied on the quality of its transition procedure. Most schools had a transition day and some schools organised secondary teacher visits to the primary schools. However, there were two schools that had enthusiastic members of staff who were very involved in easing the transition

process by employing multiple transition days that lasted for the whole of the summer term and visiting pupils prior to the transition and interviewing them to ensure they had settled in following the move. The students described these processes particularly favourably in their responses of helpful aids to prepare them for the transition in Chapter 5.

Existing research has suggested that it is the school environment and the unfamiliarity and distinct changes between the small intimate environment of the primary school compared to the large intimidating secondary school climate that influences children's maladjustment following the transition (e.g. Anderson et al., 2000; Eccles et al., 1993, 2004). In addition, Chapter 5 supports recent research indicating that improving familiarity with the new school environment by allowing children to visit it regularly, providing them with information about the structure and climate of it and supporting them in their preparations to make the transition are key for successful adaptation (e.g. Anderson et al., 2000; Eccles, 2001; McLaughlin & Clarke, 2010). It is plausible to hypothesise that children experiencing higher levels of transition preparation in the present studies would be less likely to feel anxious about the transition and more likely to adjust successfully to it. Clearly family relations would have an influence on this but it is possible that the transition procedures may interact with the association between family relations and externalising problems as suggested in Figure 6.1. To further elucidate the roles of the home-school interface, future research could compare the role of children's cognitions pertaining to family relations on their scholastic adjustment and externalising problems for children in highly supportive school environments compared to the schools that employ minimal transition procedures.

Implications for Policy and Practice

These limitations notwithstanding, the corpus of work presented in this thesis has significant implications for policy and practice, especially for a UK population. Recent work has demonstrated the extent to which sound social science research can contribute to the development and improvement of policy and practice designed to support family functioning and child well-being (e.g. Cowan & Cowan, 2008; Rutter et al., 2010). These papers suggest that governments and practitioners within the US, UK and all industrialised countries have shown a heightened interest in strengthening family relations to tackle issues of child maladjustment (Cowan & Cowan, 2008). However, it has been posited that there is a distinct difference in the focus of policies to strengthen family relations between the UK and US with the former more consistently seeking to improve parenting behaviours and the US focusing on the couple relationship and working to strengthen the quality of inter-parental relationships (Cowan & Cowan, 2008).

Indeed, in the most recent review conducted in the UK (Rutter and colleagues, 2010), the conclusion was drawn that there is strong evidence for the need to support parent-child relationships. The British Academy review (Rutter et al., 2010) revisited the debate on family type and suggested that poor quality parenting puts children at heightened risk of developing antisocial behaviour over and above family type. It also highlighted the importance of the father-child relationship for child well-being and the importance of good quality parent-child relationships among biological as well as step-parents. The review suggested that prevention strategies were necessary to reduce levels of antisocial behaviour among youth and that 'intervention strategies to improve parenting might well constitute effective means of prevention' (p.150, Rutter et al., 2010). However, the authors did make the argument that in order for parenting

interventions to be successful they must have a broad focus that also considers the wider family context. Understanding specific elements or principles of interventions that are effective, and the groups of people who would benefit most from each individual, or combination, of strategies, would ensure greater success rates of the programs. For example, Rutter and colleagues (2010) suggested that families from low incomes where family conflict, parental depression and poor parenting was more likely and children were at heightened risk of developing antisocial behaviour may benefit most from such programs. However, benefits would be dependent on the availability of specialised services accompanying the program including financial incentives and prolonged support to encourage parents to continue attending sessions and maintain any behavioural gains. A key message of the British Academy report was that sound evidence-based parenting programs were an important step towards fostering the well-being of families and reducing antisocial behaviour (Rutter et al., 2010).

Legislation has been developed and implemented that consistently highlight the importance of good parenting and detail different ways that the governments propose to support parents to help children. Examples of these policies include the Parenting Action Plan developed by the Department for Training and Education (Welsh Assembly Government, 2005), Every Parent Matters developed by the Department for Education and Skills (2007), and the Children's Plan for Families and the Support for all: the Families and Relationships green paper proposed by the Department for Children Schools and Families (2008 and 2010 respectively). These policies illustrate a clear focus within UK government on parenting and in a variety of ways they all state that 'parents and the home environment they create are the single

most important factor in shaping their children's well-being, achievements and prospects' (p.1 Every Parent Matters paper, DfES publications, 2007).

In comparison, government policies within the United States seem to be developing more of a focus on the family as a whole. The key message of a review conducted on American studies is that policy and interventions must keep the family as a system in mind by focusing on improving the couple relationship rather than just narrowly focusing on the parent-child relationship (Cowan & Cowan, 2008). The authors acknowledged the impact of the parent-child relationship on child well-being but proposed a five-domain model describing the ways in which the quality of relationships affect child adaptation. The domains included the quality of mother and father-child relationships as well as the ways in which couples communicate and support each other. The model also highlighted the importance of the transmission of family relationship quality across generations from grandparents down to children as well as each family members' individual mental health and the level of life stress and extra-familial social support available to family members. Cowan and Cowan (2008) conclude that children's positive development is not just a product of good parenting and that American based evidence suggests that intervening at the couple level has stronger more sustained effects than intervening at the parent-level alone.

Consistent with this view and the principles of the family systems perspective (Cox & Paley, 1997), the research conducted in this thesis would seem to offer support for the need to consider the family as an interconnected system. In line with the conclusions drawn by Rutter and colleagues (2010) evidence suggests that declines in the quality of the parent-child relationship are a risk factor for children's increased aggressive and antisocial behaviour (e.g. Beuhler and colleagues 2002, 2006, 2008). However, in line with the argument made by Cowan and Cowan (2008),

this risk factor may be best viewed in the context of the inter-parental relationship (e.g. Cox & Paley, 1997; Harold et al., 1997; Shelton & Harold, 2008).

A key point to note here is that this thesis has illustrated that children may be at increased risk of exposure to, and maladjustment as a result, of dysfunctional family relationships in specific developmental contexts, such as transitions. Policy designed to improve child well-being including those described above and the Every Child Matters legislation (Department for Education and Skills, 2003) highlights the need for early intervention, especially for at risk children. This is clearly an aspect of policy that has been strongly adhered to with politicians discussing the financial benefits of intervening early and the large funds allocated to intervention programs dedicated to treating children in the early years such as the Incredible Years programs in the UK (Hutchings & Colleagues 2004, 2007, 2008) and US (Webster-Stratton, 1994).

However, this thesis posits that during periods of normative life stress such as the transition from primary to secondary school, children may be more vulnerable to the effects of compromised inter-parental and parent-child relationships. In light of the findings presented here it, it would be negligent to focus efforts entirely on working with families with young children. Moreover, during school transitions, the school environment and relationships with schools have a key role to play in children's adjustment, which also interacts with the home environment (e.g. Anderson, et al., 2000; Eccles, 2004; Seidman et al., 2003; Chapter 5). Both the British Academy report (Rutter et al., 2010) and the paper delineating American policy (Cowan & Cowan, 2008) designate a section to discuss the importance of social support afforded by institutions, such as schools, and the impact of the home-school interface on children's well-being and ability to cope with school-based

demands. To this end, policy makers and practitioners in the UK and US have made advances in developing policies and interventions to strengthen the home-school interface and improve children's chances of life success within school.

Over the past decade, legislation in the UK and the US has identified the importance of parent involvement in children's education. Examples of UK based policies include the Every Child Matters paper (Department for Education and Skills, 2003), the Working Together for Good behaviour in Schools, the Pupil and Parent Guarantees and the Behaviour and the Role of the Home School Agreement (developed by the Department for Children, Schools and Families, 2009, 2010 and 2010 respectively). US government legislation relating to children's education is led by the US Department for Education which has produced policies such as The Partnership for Family Involvement in Education (2000) and Schools Involving Parents in Early Postsecondary Planning (ACT Policy Report, 2004). However, the most overarching policy that relates to children's education and parental involvement is the No Child Left Behind Act (2001), which the U.S. government uses to guide their spending of billions of dollars on education each year (Bouffard & Weiss, 2008) to ensure academic success for all children.

Each of these policies contain sections on the importance of parental involvement and support in their child's schooling to help them complete their qualifications, maintain or strive for high grades and successfully transition from school into further education or work. They all seek to provide parents with more information about subjects and school structure in the hope that having more information about the importance of school will help parents to encourage their children to work harder. The British policies also have a consistent focus on the fact that schools should feel confident in parental support such that parents will ensure

their children 'attend school regularly, are ready to learn and behave well' (The Pupil and Parent Guarantee, 2010). They go as far as listing a home-school agreement whereby parents are expected to sign a school behaviour policy, work to ensure that they are parenting their child in accordance with the school rules to reduce classroom disruption and may even be subjected to a parenting order if they do not meet these requirements (Working Together for Good Behaviour in Schools, 2009; Behaviour and the Role of Home School Agreements, 2010).

Collectively, these policies illustrate an awareness of the importance of the family relations (albeit the parent-child relationship) for children's behaviour and performance within school. However, despite the education departments commissioning research on the impact of school transitions (e.g. Evangelou et al., 2008; Galton et al., 1999; 2003; Gulati & King, 2009; Page, 2008; Taverner et al., 2001), there is little evidence to suggest that policies have been developed to strengthen family relationships or the home-school relationship, specifically to ease the transition from primary to secondary school. The body of research presented in this thesis has demonstrated that this is a key transition in a child's life that is not encompassed in the early years phase of development. Findings have demonstrated that children's awareness of inter-parental conflict and hostile- rejecting parenting during this transition put them at increased risk of adjusting poorly to the move and of increased externalising problems. By considering the research presented here, policies could be developed that effectively reduce behaviour problems in secondary school environments, following the transition. Previous attempts to ease the challenge by targeting structural aspects of the school, such as the national curriculum, have been unsuccessful (e.g. Braund & Driver, 2005). Instead policies may benefit from

employing the evidence base to strengthen family relations and the home-school relationship during the critical period surrounding this normative life stress.

Fortunately, the state of the practice field appears to be more cohesive with research findings. In 2008, the Department for Education Lifelong Learning and Skills commissioned the People and Work Unit to conduct a rapid evidence assessment of the interventions available to improve children's school behaviour and attendance (Sims, Bowen & Holton, 2008). Their results indicated that there was no single strategy that could be employed by schools to effectively reduce behaviour and attendance problems. Instead the most effective programs employed a wide range of different methods in unison. These methods almost always included a combination of community within the school environment, support for pupils, teachers and parents and information given to parents about the school policies to improve the home-school interface. This review considered interventions that reduced behaviour problems in school in general. However, in contrast to the lack of transition-specific policies described above, it appears that many interventions have been designed to ease the transition from primary to secondary school by supporting children through it and by involving parents in the process. Table 6.1 illustrates examples of the aims, principals and outcomes of transition specific intervention programs that have been delivered to UK and US samples.

Table 6.1: Details of interventions designed to reduce children's behaviour problems during the transition from primary to secondary school.

Reference	Sample and program Demographics	Aims and Objectives	Delivery & Assessment	Behavioural Outcomes
Bronstein, P., Duncan, P., Clauson, J., Abrams, C.L., Yannett, N., Ginsburg, G., Milne, M. (1998). Preventing middle school adjustment problems from lower-income families: A program for aware parenting. <i>Journal of Applied Developmental Psychology</i>, 19, 129-152.	9-12 year old children with low academic achievement and from low SES backgrounds making the transition to middle school - Group based parent education program run separately for single mothers and couples 2 hours per week for 11 weeks U.S.A	- To improve Aware Parenting of adolescent youths - To improve parent-child interactions - To improve children's sense of self-worth, classroom behaviour and academic performance	- Male and female co-facilitators for the couples group - Female co-facilitators for the single mothers group - Facilitators included one clinical psychologist and the designer of the program - All facilitators were trained by the designer and worked from a manual - Baseline assessment immediately prior to intervention, post intervention assessment and one year follow up assessment	<u>Post test</u> - Declines in children's externalising behaviour - Significant differences between treatment and control children's externalising behaviour problems <u>One-year follow up</u> - Increases in children's externalising behaviour problems but levels were better than pre-intervention levels and significantly different from controls
Conduct Problems Prevention Research Group (2000). Merging Indicated and Universal Prevention Programs: The Fast Track Model. <i>Addictive Behaviours</i>, 25, 913-927.	- Children starting school identified by parents and teachers as high risk for problem behaviour - Children transitioning into middle or junior high school - Fast Track program- Adolescent specific - RCT - Indicated prevention program for at risk children K-10 - Class based universal prevention program K-5/6 2hour monthly group sessions U.S.A	- To reduce frequency, severity and latency of onset of adolescent problem behaviours in a high risk sample - Test the efficacy of a complex combined indicated and universal prevention program - Identify factors that moderated or mediated successful prevention for children in the universal versus combined program.	- For the Indicated component Program developers held sessions for parents and youth separately as well as parent youth meetings within the school - For the Universal component parents and youth had separate meetings and topics to cover - Base line behavioural tests and post intervention follow up	- Results are in the preliminary stages but are promising - Indicated program resulted in reductions in children's conduct problems, improvements in social skills and improved parenting - The Universal program resulted in reductions of overall classroom aggression but this was only reported for the first grade group not the adolescent group.

Table 6.1 continued: details of interventions designed to reduce children's behaviour

problems during the transition from primary to secondary school.

Reference	Sample and Program Demographics	Aims and Objectives	Delivery & Assessment	Behavioural Outcomes
Elias, M.J., Gara, M.A., Schuyler, T.F., Branden-Muller, L.R. & Sayette, M.A. (1991). The promotion of social competence: Longitudinal study of a preventive school-based program. <i>American Journal of Orthopsychiatry</i>, 61, 409-417.	10-12 year old children preparing to make the move from primary to middle school - RCT - Improving Social Awareness Social Problem Solving project - Two year elementary school based primary prevention - Group based program U.S.A.	- To promote social competence - To ease the transition to middle school	- Elementary school staff delivered the program within class. - Two groups had the program delivered with high fidelity - Two groups had the program delivered with moderate fidelity - One control cohort with no program delivery - Behavioural, academic and self competence measured in high school	- Children who received the program had higher levels of pro-social behaviour and lower levels of antisocial, socially disordered and self-destructive behaviour 4-6 years following the program in high school than their counterparts in the control group. - Control girls were more likely to engage in tobacco use whereas control boys were more likely to have self-destructive behavioural problems - Program children had improved social behaviour and work performance and effects were strongest in the high fidelity groups.
Felner, R.D., Favazza, A., Shim, M., Brand, S., Gu, K., & Noonan, N. (2001). Whole school improvement and restructuring as prevention and promotion: Lessons from STEP and the Project on High performance Learning Communities. <i>Journal of School Psychology</i>, 39, 177-202.	- Students making the transition to middle or secondary school - RCT - School Transition Environment Project (STEP) - Whole school program - Reorganisation and restructuring of the secondary school's ecology U.S.A.	- To facilitate successful adaptation to the transition from elementary to middle/junior high school and from junior high to high school - To reduce adaptational demands and increase coping resources available to students	- Teachers deliver lessons to STEP students within STEP classrooms - Non-step students act as control group - Baseline and post transition assessments	STEP students showed significantly lower levels of social, behavioural and substance abuse related experiences following the transition compared to controls who evidenced increased delinquent and substance abuse problems

Table 6.1 continued: details of interventions designed to reduce children's behaviour

problems during the transition from primary to secondary school.

Reference	Sample and program Demographics	Aims and Objectives	Delivery & Assessment	Behavioural Outcomes
Jones, H., & Wassell, C. (2005). Transition: A global Issue. Accessed from lead author via helen1.jones@Wrexham.gov.uk on 5/11/09	10-12 year old children preparing to transition to secondary school identified by schools as at risk for emotional or behavioural problems. - Bryn Alyn Transition Project - Student Assistance Program school based weekly meetings for term prior to transition and one term following transition U.K.	- To reduce child behaviour problems and reduce the number of breakdowns in year 7 placements - To ease the transition from primary to secondary school	- Steering group comprising Assistant Head, Head of Year 7, Ancillary support worker school EP, LEA coordinator of the SAP met to coordinate project - LEA coordinator of SAP led the child focused activities - Baseline Test during induction day and following the last session of the program	- Eased transition with pupils adjusting faster than predicted and engaging in pro-social behaviours within the class - Children who remained in the group maintained their placements in year 7 and were not excluded for behavioural problems.
- Lochman, J. E. & Wells, K.C. (2002). Contextual social-cognitive mediators and child outcome: A test of the theoretical model in the Coping Power Program. <i>Development and Psychopathology</i>, 14, 945-967. - Lochman, J.E. & Wells, K.C. (2004). The Coping Power Program for preadolescent aggressive boys and their parents: 1-year follow-up. <i>Journal of Consulting & Clinical Psychology</i>, 72, 571-578.	- Aggressive boys making the transition to secondary school 9-11 years - Multi-component socialisation preventive intervention - Child component – school based, 33 group sessions (40-60 min) 4-6 boys (8 in year 1, 25 in year 2) - Parent-component – 16 group sessions 4- 6 single parents or couples - U.S.A	<u>Child Component</u> - Improve children's self awareness and appraisals of others - Improve behaviour both within and outside the school <u>Parent Component</u> - Improve child behaviour management both within and outside the home - Improve family communication - Parental stress management	- School guidance counsellor - Grant funded members of staff with at least a masters in psychology or social work - Base line assessment just prior to intervention, Post-intervention assessment 1.5months later following the intervention, One year follow up assessment in secondary school	- The intervention improved boys' outcome expectations in relation to aggressive behaviour and their self-control. - The intervention improved parent's ability to consistently discipline their children - One year later the intervention reduced boys' covert delinquency, parent-reported child substance use and improved teacher – reported school behaviour, compared to controls and also moved these boys into normative ranges on these outcomes - Child component improved child behaviour but combined parent and child components generated the most significant improvements across domains, following the transition

Table 6.1 continued: details of interventions designed to reduce children's behaviour problems during the transition from primary to secondary school.

Reference	Sample and program Demographics	Aims and Objectives	Delivery & Assessment	Behavioural Outcomes
Morrison, G.M., Storino, M.H., Robertson, L.M., Weissglass, T., & Dondero, A. (2000). The protective function of after-school programming and parent education and support for students at risk for substance abuse. <i>Evaluation and Program Planning</i>, 23, 365-371.	10-12 year old (predominant'y Latino) Children from low SES - School based parent and child education program 2 hours after school daily for the children - Five meetings per year for parents U.S.A.	- To aid a successful school transition - To improve academic attainment - To improve pro-social skills - To improve parental involvement in children's academic and social development	- Grant staff lead children's group sessions and parent meetings - Students and teachers completed surveys at the start of term prior to the intervention and in the following spring term	- Teachers reported declines in acting out behaviour across the transition in participants but increases in control - Children maintained their bonding to school across the transition whereas control's declined - Children perceived greater parent supervision than controls across the transition - These results were related to the amount children and parents attended meetings
Qualter, P., Whiteley, H.E., Hutchinson, J.M., & Pope, D.J. (2007). Supporting the development of emotional intelligence competencies to ease the transition from primary to high school. <i>Educational Psychology in Practice</i>, 23, 79-95	11-12 year old children who had just transitioned to secondary school - Group based, school mentoring program - Weekly sessions for one year - UK	- To promote emotional intelligence and aspects of self-worth - To ease the negative effects of school transition	- New year 7 intake all received the program - Control group of the previous year 7 - Teachers were given emotional intelligence awareness sessions and then taught year 10 pupils to be mentors - Base line and post test assessment	- Children who received the intervention had significantly higher levels of behavioural competence than the control group. - Behavioural competence of the intervention group increased over time. - Children with lowest baseline emotional intelligence benefited most from the program with significant improvements from time 1 to time 2 whereas children with initial high levels of emotional intelligence demonstrated a significant reduction following the program.

Table 6.1 continued: details of interventions designed to reduce children's behaviour

problems during the transition from primary to secondary school.

Reference	Sample and Program Demographics	Aims and Objectives	Delivery & Assessment	Behavioural Outcomes
Reid, J.B., Eddy, M., Fetrow, R.A., & Stoolmiller, M. (1999). Description and immediate impacts of a preventive intervention for conduct problems. <i>American Journal of Community Psychology</i>, 27, 483-517.	1st and 5th grade children from disadvantaged backgrounds - Linking Interests of Families and Teachers (LIFT) Parent and Child school based education program 10-week intervention U.S.A	- To lower the likelihood of oppositional or antisocial behaviour within school, peer and home domains - To reduce the chances of members of each domain negatively reacting to such behaviours - To teach members of each domain how to positively support pro-social behaviour	- LIFT teachers lead 20 1 hour sessions to groups of children - Lift members of staff lead the weekly parenting meetings for six weeks with 10 – 15 families - Teachers parents and children were assessed prior to the intervention and parents and teachers were assessed post intervention	- Children's physical aggression on the playground declined across the transition. This improvement was the same for all fifth graders but the greatest impact for first graders was evident in the most physically aggressive children at baseline - Teacher reported better social skills in intervention children compared to control children - Mothers with the most aversive verbal behaviour improved the most following the intervention
Stormshak, E.A., Dishion, T.J., Light, J., & Yasui, M. (2005). Implementing family-centered interventions within the public middle school: Linking service delivery to change in student problem behaviour. <i>Journal of Abnormal Child Psychology</i>, 33, 723-733.	12-14 year old youths who had just transitioned to middle school and were reported by teachers as being at risk for problem behaviour - School-based multi-component preventive intervention 3 years following transition to middle school U.S.A	- To improve contact between families and schools - To improve youth problem behaviour - To improve protective parenting practices - To improve family functioning	- A Family Resource Center (FRC) is set up within each school - A professionally trained Parent Consultant (PC) works within each FRC - Teachers and students reported on behaviour and academic attainment every year	- High levels of teacher reported risk for child problem behaviour at the start of middle school predicted increased parental contact with the FRC over the course of the 3 years - The greater the level of contact with the FRC the greater the declines in teacher-reported growth in problem behaviour. - Children at most risk of problem behaviour demonstrated the greatest declines in teacher risk rating across middle school

Table 6.1 continued: details of interventions designed to reduce children's behaviour problems during the transition from primary to secondary school.

Reference	Sample and program Demographics	Aims and Objectives	Delivery & Assessment	Behavioural Outcomes
Yadav, V., O'Reilly, M., & Karhim, K. (2010). Secondary school transition: Does mentoring help 'at risk' children? <i>Community Practitioner</i>, 83, 24-28.	10-12 year old children in year 6 preparing to transition to secondary school who were referred by LEA for being at risk of social exclusion 10 month school based mentoring program - Weekly sessions conducted in school time - U.K.	To test the effects of mentoring for at risk pupils preparing to transition	- Education or health personnel were trained in CBT, solution focused therapy, mentoring and mediation to deliver the mentoring to children - Group programs were also available on a whole school basis for behaviour, anger management and friendship - Base line assessment, test just prior and following transition of behaviour, SDQ and self-esteem	- Overall SDQ scores showed significant improvement over time with a significant change from baseline to pre-transition and no significant change post transition - Hyperactivity scores mirrored this finding significantly improving from baseline to pre-transition with no significant improvement post transition - Conduct significantly improved from baseline to pre-transition and again post transition - Pro-social behaviour improved from baseline to pre-transition but there was no significant change post transition - All improvements were maintained post transition - Overall SDQ, Hyperactivity and Conduct scores demonstrated that around 50% of children with a clinically relevant score at baseline had dropped below the clinical cut off.

Much like the successful features of the school-wide programs described by Sims and colleagues (2008), these programs employed a wide range of methods of delivery from group discussion sessions to role-plays and homework tasks. In addition, a key feature of almost all the programs was a parent education or

information component to help parents understand the importance of their support for their children and the challenges posed to children during the transition. It has been suggested that in order for intervention and prevention programs to be successful they must simultaneously work to support the child and improve the home and school environment (Greenberg et al., 2001). By working on parents', children's and teachers' behaviour and working to strengthen the home-school relationship, intervention programs will achieve the greatest and most sustained reductions in children's behaviour problems within school (Greenberg et al., 2001; Taylor & Biglan, 1998).

As demonstrated in Table 6.1, teachers or school guidance counsellors were trained to deliver the vast majority of these programs and many offered a child and a parent component (e.g. Morrison et al., 2000; Reid et al., 1999; Stormshak et al., 2005). Consistent with the reviews of program efficacy (e.g. Greenberg et al., 2001; Sims et al., 2008) those programs incorporating multiple components described the combined parent and child component as yielding the strongest effects (e.g. Conduct Problems Prevention Research Group, 2000; Lochman & Wells, 2002, 2004). In addition, all programs offered a long-term program with the shortest program lasting for 10 weeks (Reid et al., 1999) and the longest spanning three years following the transition to middle school (Stormshak et al., 2005). Greenberg and colleagues (2001) suggested that multi-year programs are likely to offer the most enduring benefits while short-term interventions are less likely to produce sustainable behavioural gains. Unfortunately, not all programs were evaluated beyond the post- intervention assessment but all programs did result in reduced problem behaviour or improved pro-social behaviour, suggesting that even week long, but well-designed and developmentally appropriate programs, are successful in meeting their objectives (e.g. Cowan & Cowan, 2002; Hutchings & Lane, 2005). The file drawer effect must be

considered here as these are all published interventions and so it is possible that there are short-term studies that have not been successful in reducing behaviour problems across the transition and have therefore not been published. Among published work, studies that last beyond an individual information session appear to benefit children during this transition but longer-term programs remain the gold standard of interventions to maintain behavioural gains (Greenberg et al., 2001).

In the context of the school transition literature, these programs have each tackled aspects of the home or school environment that have been associated with declines in child well-being in secondary school. School-based programs such as STEP (Felner et al., 2001), the promotion of social competence (e.g. Elias et al., 1991), transition mentoring (Qualter et al., 2007; Yadav et al., 2010) and the Bryn Alyn Transition project (Jones & Wassell, 2005) all focus on improving children's academic preparedness for the transition. These programs appear to have focused on the structural aspects of the school environment that children feel anxious about prior to the transition, such as the change in class size and format, the change in peer groups and the desire pupils have for increased familiarity with their new environment (e.g. Anderson et al., 2000; Delamont & Galton, 1986; Eccles, 2001; Galton et al., 2002; Pellegrini & Long, 2005).

STEP (Felner et al., 2001) placed children in a team with a homeroom teacher who acts like a counsellor and allowed them to take all lessons together in a smaller area of the school. The aim was to reduce the extent to which the secondary school felt overwhelming and make the environment more of a transitional phase. The STEP program retained some of the facets of the primary school such as a supportive teacher and a single group of classmates and slowly introduced aspects of the secondary environment such as moving to different classrooms with different class

teachers. Similarly, the Bryn Alyn Transition Project (Jones & Wassell, 2005) placed at risk children in a group allowing them to have extra transition days to become more familiar with the school and to have supportive sessions to discuss their feelings about the new school, with additional support offered by their new head of year if they wanted it. This program aimed to ease these at risk children into their new school environment so that they felt more capable of coping with the challenge instead of dropping out of school.

The promotion of social competence (Elias et al., 1991) and transition mentoring programs (Qualter et al., 2007; Yadav et al., 2010) each worked directly with the child helping to improve their sense of self-competence and ability to cope with the challenges of the new school with additional support when needed. They taught children social problem solving skills, methods of coping with real life friendship problems and alternative ways of handling stressful situations to improve self-esteem and reduce aggressive behaviour, via group and one-to-one discussion sessions.

These programs provided information to parents about the importance of the home school relationship and/or the challenge of transition but did not directly involve or train parents in the administration of the program. They all eased the transition with children adapting faster than a control group, presenting lower levels of behaviour problems and increased levels of pro-social behaviour post-transition. Only two of the programs had long-term follow up assessments of the effects (Elias et al., 1991; Yadav et al., 2010) so it is not possible to draw conclusions about the type of program that had the most enduring positive effects. However, these programs all illustrated improvement from pre to post transition in indices of children's behaviour

and the children who received the social competence program (Elias et al., 1991) evidenced behavioural gains that were maintained 4-6 years post-intervention.

These results suggest that it is possible to target structural aspects of the school environment to ease the transition process. However, none of these programs had any measures of family relations at baseline and so the school changes may have been successful because children had supportive parents. Alternatively, parents may have been more aware of the challenges associated with school transition because they agreed for their children to participate in an intervention, which increased the level of support they provided compared to control parents, as a result of the information they were given. The transition literature, and findings presented in this thesis, highlights the importance of supportive family relations during this transition (e.g. Anderson et al., 2000; Dubois et al., 1994; Seidman et al., 2004) and research suggests that behavioural gains children make as a result of intervention are only maintained if they have a supportive home environment (Webster-Stratton et al., 2001). As such, any improvements made to levels of support parents provided as a result of their awareness of the program may have given children a greater chance of making or maintaining behavioural gains.

The remaining intervention programs illustrated in Table 6.1 all focused on aspects of family relations or the home-school relationship identified within the literature as influencing children's ability to successfully transition. With the exception of two programs (Bronstein et al., 1998; Stormshak et al., 2005), these interventions employed group sessions in which the group leader led discussions with groups of children and parents separately. The majority of these programs educated parents and children on developmentally appropriate behaviours for young adolescents rather than providing transition specific information. The behaviours that

were targeted, however, appear in the literature as making the transition more challenging including parent-child conflict or ineffective methods of communication, lack of support and lack of awareness of adolescent emotional needs and daily challenges (e.g. Dubois et al., 1994; Eccles et al., 1993; Lord et al., 1994; Seidman et al., 2003). In addition, some of the programs did employ a transition specific section in the child component to help children prepare for the move (e.g. Conduct Problems Prevention Research Group, 2000; Reid et al., 1999).

Using combinations of group discussions, role-play, video vignettes and homework tasks that have been consistently employed in some of the most successful family intervention programs (e.g. Sanders & colleagues 1999, 2003; Webster-Stratton & Hammond, 1999), parents and children were taught new and more effective methods of communicating with each other. Children were taught methods of reappraising and coping more effectively with stressful situations associated with the transition and reducing aggressive reactions, whereas parents were taught more effective ways of managing problem behaviour and supporting children's emotional and academic needs. These programs all resulted in combinations of reduced aggressive behaviour problems across the transition and in secondary school, improvements in pro-social behaviour and lower levels of negative behaviours such as substance use that were found to increase in control groups (e.g. Lochman & Wells, 2002, 2004).

The two programs described above that did not incorporate a parent and child component worked exclusively with parents. Stormshak and colleagues (2005) developed a Family Resource Centre within the school, which was run by a Parent Consultant. The aim was to support parents and help them to manage problem behaviours and homework issues as well as become more involved with the school

via individual sessions, emails and phone calls. This program appeared to focus on the importance of parental support and involvement with academic tasks during the transition (e.g. Lord et al., 1994; Seidman et al., 2004) and yielded improvements in the parent-school relationship, which was in turn associated with improvements in children's behaviour. This program was especially beneficial for those children reported to be most at risk of problem behaviour in secondary school suggesting that school-run programs designed to improve the home-school relationship and improve parent problem behaviours may be a fruitful way of reducing children's problem behaviours in school (e.g. Cowan & Cowan, 2008; Greenberg et al., 2001; Taylor & Biglan, 1998).

Bronstein and colleagues (1998) supported the conclusions drawn by Cowan and Cowan (2008) that targeting parent-child relations alongside the couple relationship adds value to the effectiveness of the intervention. Group sessions including leader led discussion and role-play educated parents about adolescent development, family dynamics and interpersonal communication. Parents were taught ways of supporting their child as well as their partner by employing more effective ways of communicating with children and partners including assertiveness, setting guidelines, responsiveness and awareness of conflict and anger. The aim of this program was to improve parental awareness of the challenges children face in early adolescence following the transition to middle school so that they can work to create a home environment that facilitates positive adjustment. Results indicated that the children of parents who participated in this intervention evidenced significant declines in externalising problems compared to controls and the difference between intervention children and controls was maintained one year later. Consistent with the findings of this thesis and the family-systems perspective (Cox & Paley, 1997), this

intervention illustrates the importance of improved parent-child relationships in the context of improved inter-parental relationships during the transition to secondary school for reduced externalising problems in school.

Collectively the programs presented in Table 6.1 demonstrate the behavioural gains that children can make during the transition to secondary school when aspects of the home or school environment are improved. There is a particular strength to many of the programs presented in Table 6.1 when considered in the context of social learning theory (Bandura, 1965, 1969) and the main finding of this thesis that children's social cognitions pertaining to family and school- based relationships orient their externalising problems. The vast majority of family based programs that included a child component had a section that focused on children's appraisals of social situations, coping and problem solving skills and reappraising stressful situations (Conduct Problems Prevention Research Group, 2000; Elias et al., 1991; Lochman & Wells, 2002, 2004; Morrison et al, 2000; Qualter et al., 2007). These programs illustrate the benefits of targeting children's cognitions about their social environment during the transition to help them to cope more effectively with the interpersonal and structural demands of the transition and to reduce externalising problems in secondary school.

Despite the successes of the interventions listed in Table 6.1, there are still several limitations that can be described in the context of the findings of the thesis. First, with the exception of three studies (Elias et al., 1991; Felner et al., 2001; Qualter et al., 2007), the programs all worked with at risk samples of children who were already presenting increased behavioural problems or were from low SES backgrounds. This thesis has demonstrated that typical community samples of children can evidence externalising problems following the transition, especially

when they are also experiencing high levels of inter-parental conflict within the home. The three programs that targeted community samples demonstrated that equipping typical children with the skills to prepare for and cope with the school transition protected them from developing behavioural problems that their classmates exhibited as a result of the transition (Elias et al., 1991; Felner et al., 2001; Qualter et al., 2007).

Unfortunately all of the programs that worked with parents and targeted the home environment worked with an at-risk sample and therefore it is difficult to draw conclusions about how effective they would be with a community-based sample. Furthermore, this finding illustrates the fact that there is a lack of recognition that school transition is a risk factor for *all* children living in family environments that are characterised by inter-parental conflict and that there is still a need to develop universal programs to help all children make a successful transition.

Second, these programs reflect the gap in the literature with the focus on either school factors *or* home factors. None of the programs listed in Table 6.1 target a school factor such as increasing transition days alongside providing group sessions to improve the quality of family relationships. This thesis has consistently demonstrated that both home and school factors contribute to the school transition being a challenging event. Future interventions should seek to incorporate these findings and apply a multi-component program that spans across multiple domains to achieve enduring success (Greenberg et al., 2001) at supporting children across the transition and throughout secondary school.

Although, financial and real world application limitations can impair the ability to develop and implement a multi-component intervention (Cowan & Cowan, 2008; Rutter et al., 2010), it would be relatively easy to employ a school-based factor in place of the child component of some of the above programs that already employ a

parent and child component. For example, the child component could comprise of additional transition days or the improvement of social competencies to cope with the changes to peer relations and school structure that have been successful in interventions and within the literature (e.g. Elias et al., 1991; Evangelou et al., 2008; Jones & Wassell, 2005). This could then accompany the group-based parent sessions designed to inform parents about effective ways of supporting their children during the transition that achieved successful reductions in children's problem behaviour (e.g. Lochman et al., 2002, 2004; Reid et al., 1999).

In relation to this point, and following on from the conclusion drawn about the efficacy of school-based interventions, future work could also take measures of parental support and home environments at baseline, pre-intervention. This would facilitate the tests of moderating effects of interventions that have been described as particularly useful for enhancing the efficacy of future interventions (Rutter et al., 2010). Having baseline measures of family factors would permit the analysis of efficacy of a combined home-school based program for families that are initially supportive compared to those who are less supportive and/or have higher levels of inter-parental conflict. Results would attest to the strength or length of the intervention program that would be required to help children from a range of family backgrounds to successfully adjust to secondary school. By considering the evidence base of this thesis, advancements could be made to both policy and practice designed to reduce externalising problems during adolescence by targeting factors of the home environment including inter-parental and parent-child relationships and the school environment such as improving continuity between primary and secondary school during transition.

Conclusion

This thesis has found that children's understanding of the meaning of inter-parental conflict occurring at the time of school transition predicts their externalising problems in secondary school. It is concluded that children's interpretation of the inter-parental and parent-child relationship is important and that during the transition from primary to secondary school children are vulnerable to feeling responsible for the couple conflict, which in turn, is related to increased externalising problems. This thesis is grounded in the principles of social learning theory (Bandura, 1965, 1969) and family systems theory (Cox & Paley, 1997). Findings support the need to consider the family as a system and not just to focus on the parent-child relationship. This thesis also demonstrates that at times of normative life stress, children's social cognitions about the inter-parental relationship orient variation in their adaptation to the transition and school-based externalising problems.

The relative roles of the home and school environment on children's ability to prepare for and adjust to secondary school were tested using a mixed methods approach. By simultaneously examining the roles of children's cognitions pertaining to the inter-parental and parent-child relationship on transition anxiety, adaptation and externalising problems, significant advances were made in the understanding of the link between disruption within the home and children's behaviour within the school. In addition, using a qualitative approach to examine specific facets of the school environment, that children and their parents and teachers described as aiding or hindering successful transition preparations, has identified school-based factors that can be targeted to assist children during their move to secondary school. These results are perhaps especially applicable to children experiencing the most distressing family relations, who may be at heightened risk of developing increased externalising

problems following the transition. These findings present a platform from which research, practice and policy can seek to further elucidate the importance of the home-school relationship for children's school based functioning and identify the most effective targets to reduce levels of aggressive and antisocial behaviour.

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Appendix 1: Intercorrelations for all study variables presented for boys and girls

*Table 3.3: Inter-correlations between study constructs for boys N= 227, * $p < .05$, ** $p < .01$.*

Study Variable	1	2	3	4	5	6	7	8
<u>Time 1 (1999)</u>								
1. Inter-Parental Conflict	-							
2. Externalising Behaviour	.29**	-						
<u>Time 2 (2001)</u>								
3. Appraisals of Threat	.34**	.10	-					
4. Harsh-Rejecting Parenting	.27**	.13	.41**	-				
5. Mother-Child Harsh Rejection	.21**	.10	.33**	.93**	-			
6. Father-Child Harsh Rejection	.30**	.15*	.43**	.94**	.75**	-		
7. Self-Blame Attributions	.14*	.12	.43**	.43**	.37**	.43**	-	
8. Externalising Behaviour	.22**	.41**	.32**	.30**	.20**	.35**	.27**	-

*Table 3.4: Inter-correlations between study constructs for girls. N = 223, * $p < .05$, ** $p < .01$*

Study Variable	1	2	3	4	5	6	7	8
<u>Time 1 (1999)</u>								
1. Inter-Parental Conflict	-							
2. Externalising Behaviour	.37**	-						
<u>Time 2 (2001)</u>								
3. Appraisals of Threat	.30**	.01	-					
4. Harsh-Rejecting Parenting	.41**	.21**	.42**	-				
5. Mother-Child Harsh Rejection	.42**	.22**	.40**	.91**	-			
6. Father-Child Harsh Rejection	.32**	.15*	.37**	.91**	.66**	-		
7. Self-Blame Attributions	.22**	.14*	.44**	.54**	.55**	.44**	-	
8. Externalising Behaviour	.31**	.58**	.12	.34**	.37**	.25**	.33**	-

Appendix 2: Figures 3.4 and 3.5, SEM results of relationships between inter-parental conflict, social cognitions and externalising problems for boys and girls.

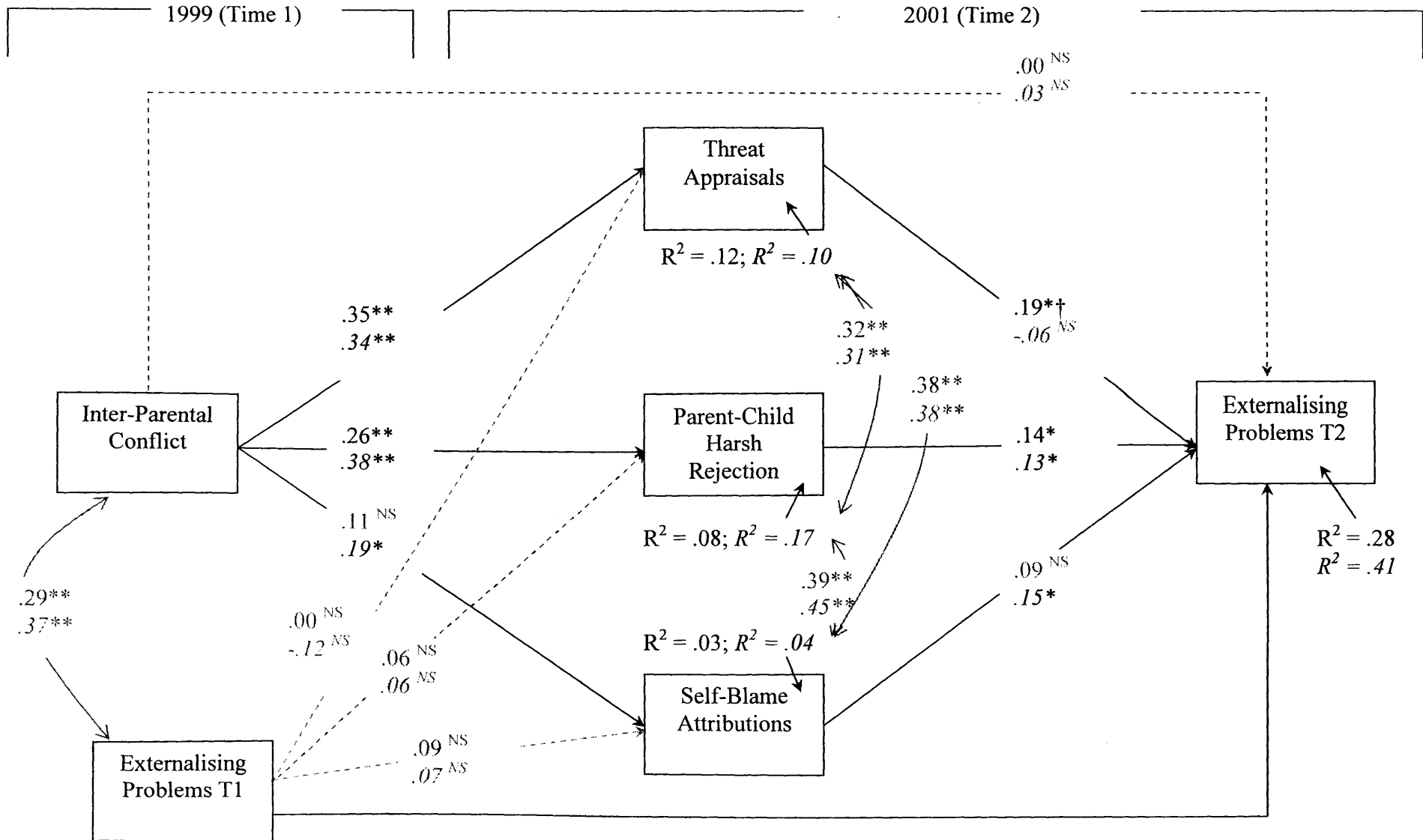


Figure 3.4: Maximum likelihood estimation of inter-parental conflict, adolescent cognitions of family relations and externalising behaviour problems for boys and girls. Boys' value above, girls' value below, italicised NS Non-Significant * $p < .05$, ** $p < .01$, † pathway moderated by gender

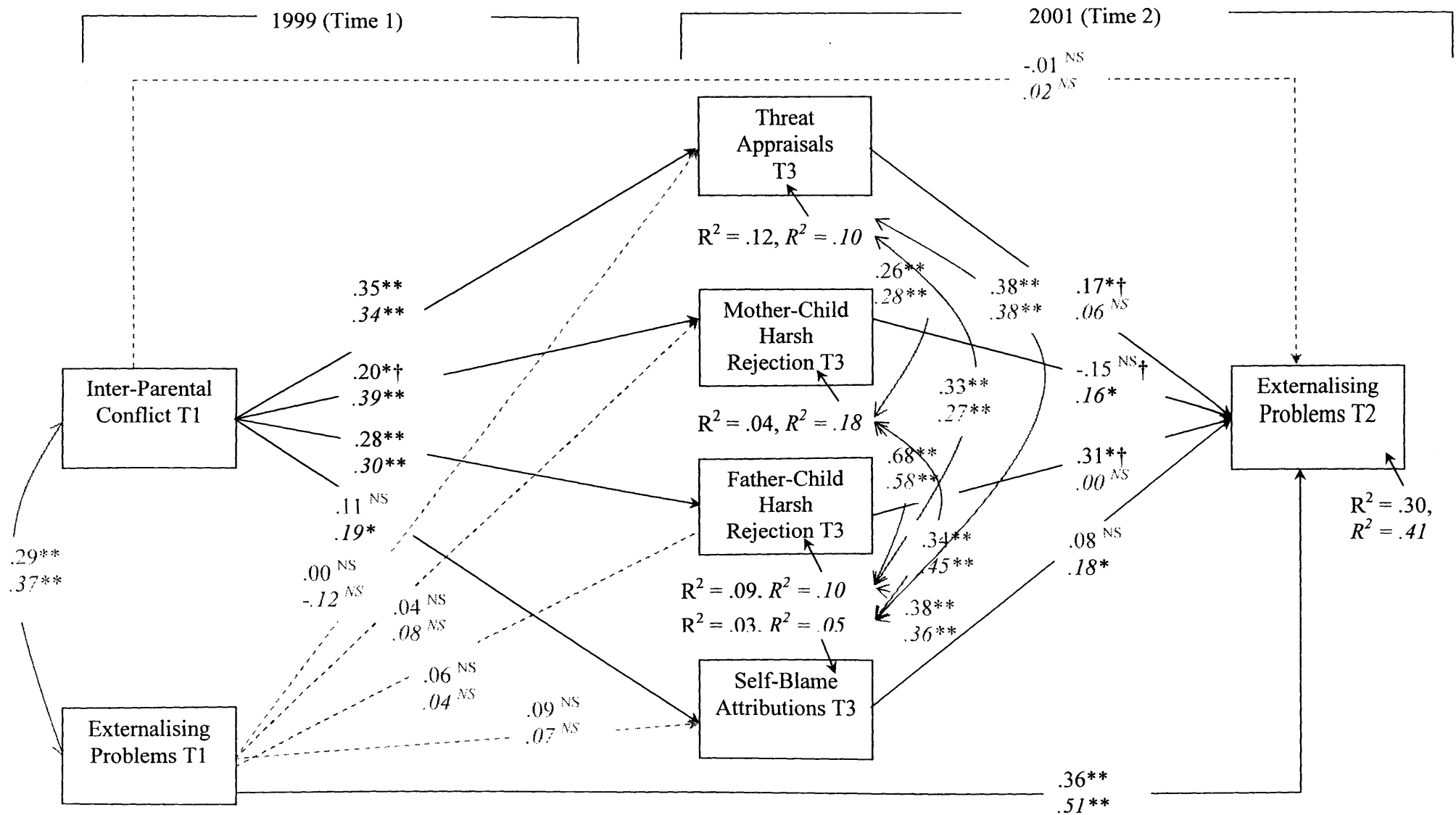


Figure 3.5: Maximum likelihood estimation of inter-parental conflict, adolescent cognitions of family relations and externalising behaviour problems for boys and girls. Boys' value above, girls' value below, italicised ^{NS} Non-Significant * $p < .05$, ** $p < .01$, † pathway moderated by gender

Appendix 3: List of questions included in the anxiety about transition and adaptation to secondary school measures (Harold, 2006).

Anxiety about the Transition to Secondary School Measure

When you think about moving to secondary school do you ...

1. Worry that you may not be able to follow the lessons?
2. Worry that it will be too much for you?
3. Worry that you may not be able to cope with the work?
4. Worry that the school may demand too much of you?
5. Worry that the new subjects may be too difficult for you?
6. Worry that you might not find nice friends?
7. Worry that you may find it boring with the other children?

Adaptation to Secondary School Measure

When you think about your first year in secondary school do you...

1. Feel it is hard to follow the lessons?
2. Feel it is too much for you?
3. Feel that you struggle to cope with the work?
4. Feel that the school demands too much of you?
5. Feel that the new subjects are too difficult

Appendix 4: Bar charts illustrating boys and girls' perceptions of helpful aids to school transition and children's perceptions of supportive teacher behaviour based on their social cognitions

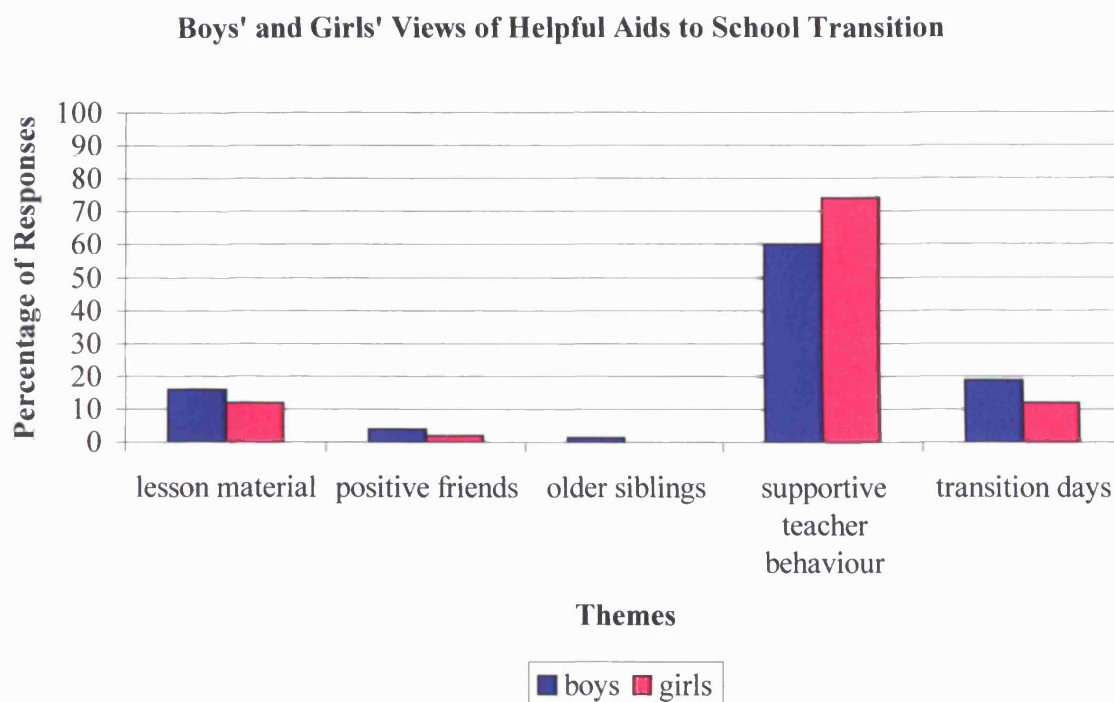


Figure 5.2i: Bar graph illustrating helpful themes identified by boys and girls

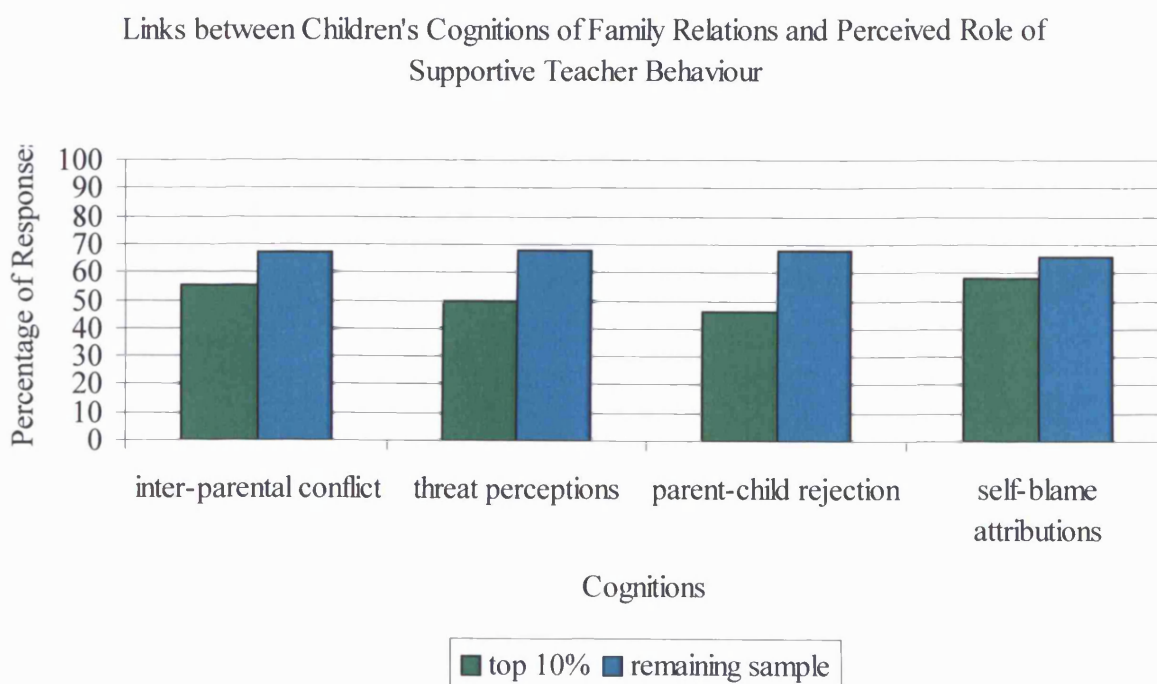


Figure 5.2ii: Bar graph illustrating views of supportive teacher behaviour based on social cognitions

Appendix 5: Bar charts illustrating boys and girls' perceptions of unhelpful aids to school transition and children's perceptions of unsupportive teacher behaviour based on their social cognitions

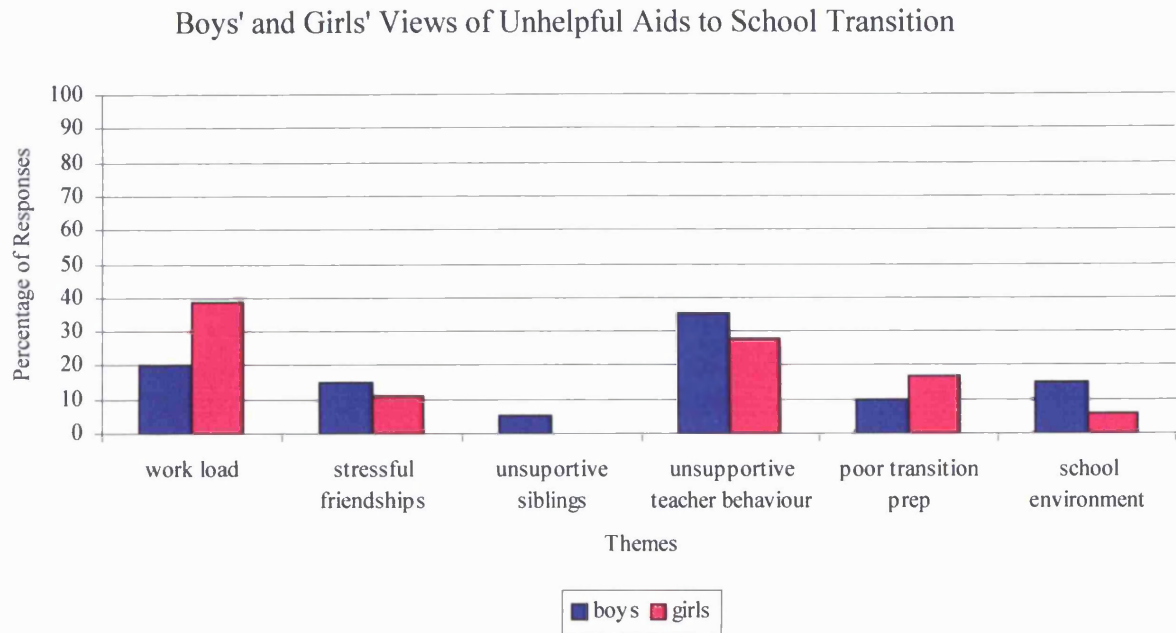


Figure 5.5i: Bar graph illustrating unhelpful themes identified by boys and girls

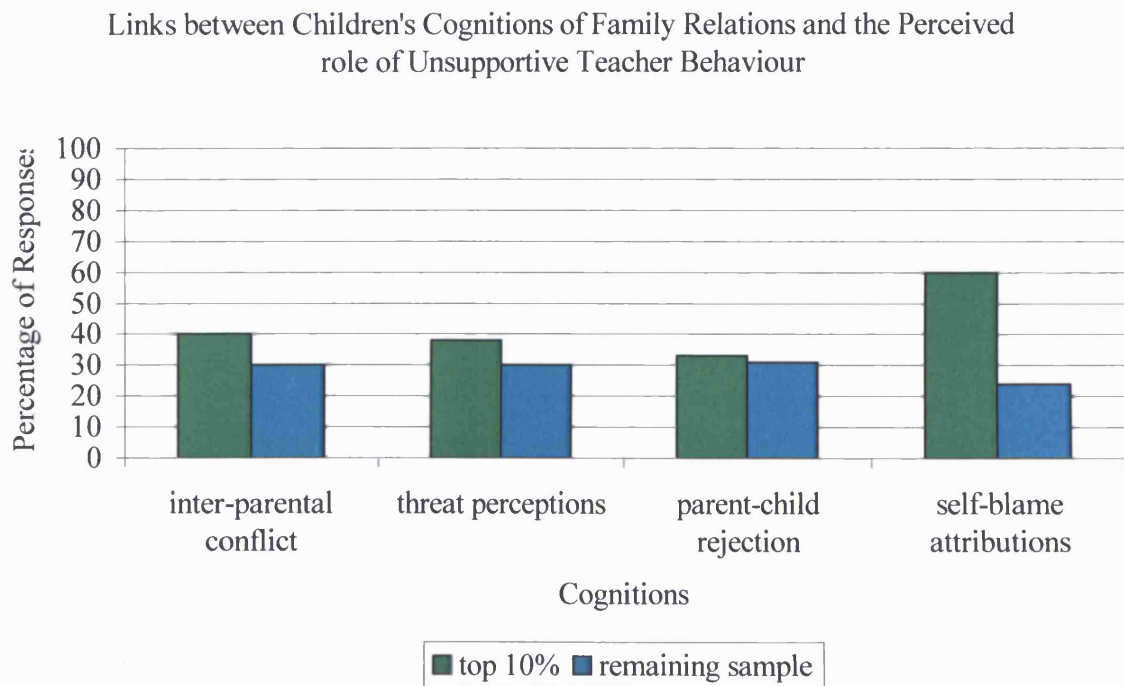


Figure 5.5ii: Bar graph illustrating views of unsupportive teacher behaviour based on social cognitions

Appendix 6: Bar charts illustrating boys and girls' perceptions of future actions to aid school transition and children's perceptions of supportive teacher behaviour based on their social cognitions

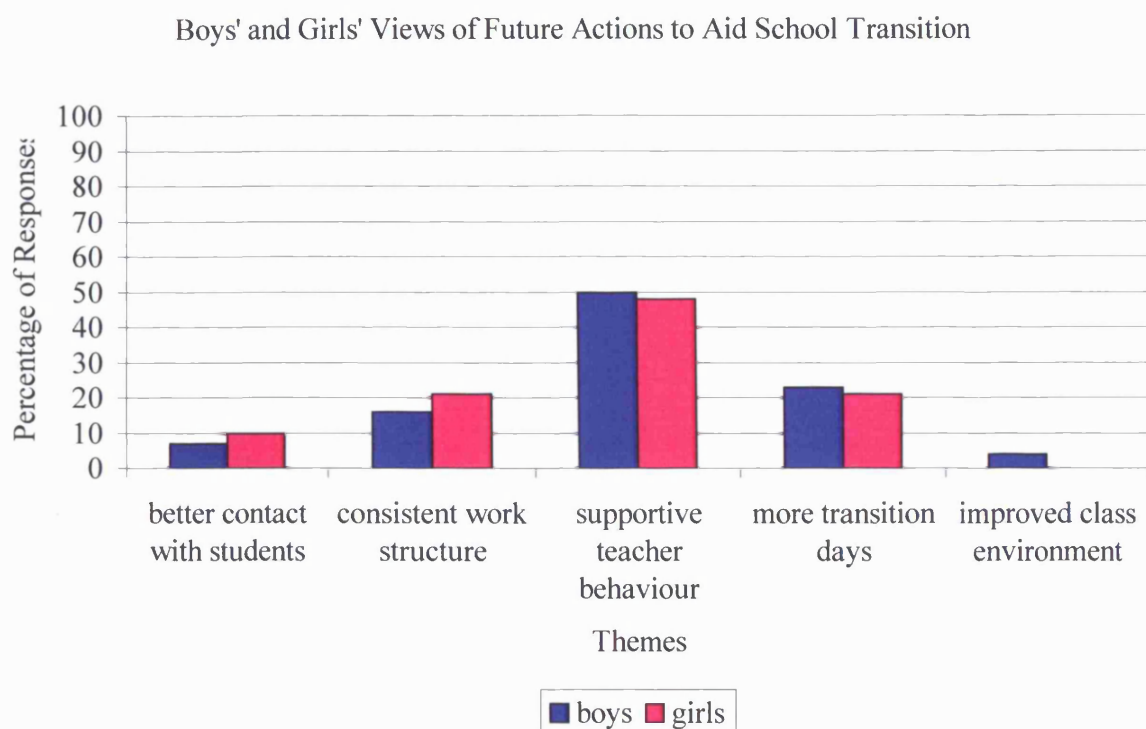


Figure 5.7i: Bar graph illustrating unhelpful themes identified by boys and girls

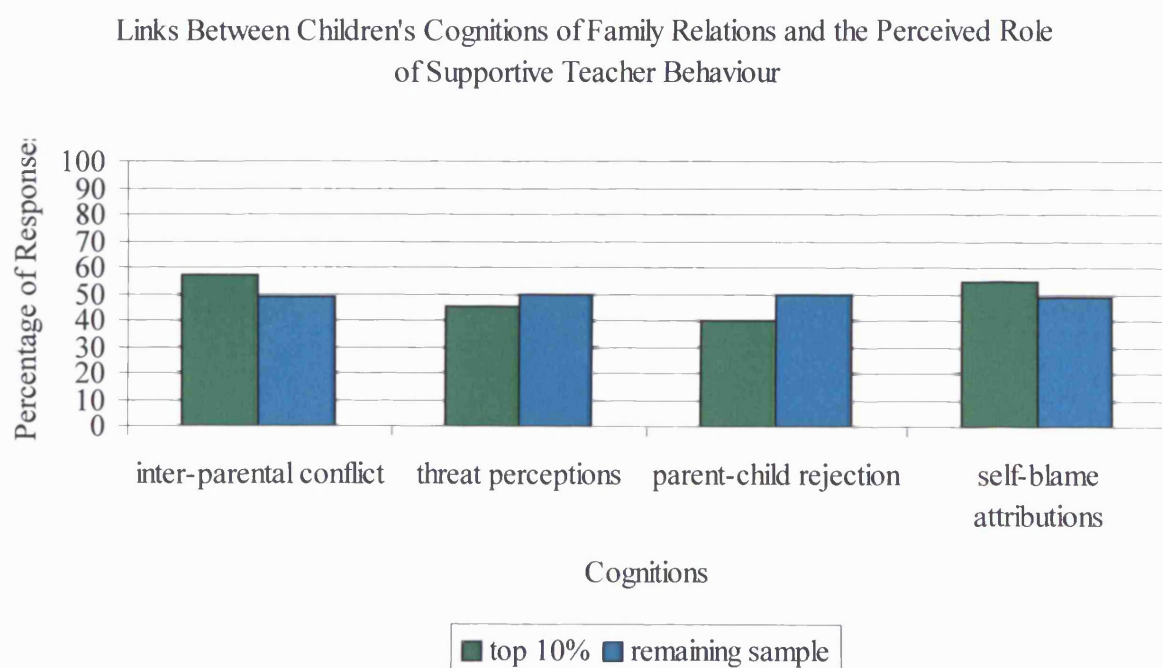


Figure 5.7ii: Bar graph illustrating views of teacher behaviours to assist children making the transition in the future based on social cognitions

