

To what extent does parenting style predict behavioural changes in a first-born child following the birth of a sibling?

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Overview

The three papers focus on the concept of parenting style. The literature review provides a summary of studies which examine parenting styles and their impact on children's development. It considers the classification of parenting style; the antecedents of parenting style and reviews studies investigating the impact of parenting style on children's social and developmental outcomes. In addition, the effects of ethnicity, temperament and genetic influence are considered. The aim of the review is to ascertain the impact of parenting style on children's development and to identify the effect of parenting style on developmental outcome.

The empirical paper examines the impact of the birth of a sibling on the behaviour of the first-born child. Specifically, it investigates whether parents with an authoritative parenting style have children who display fewer behavioural changes following the birth of a sibling. It considers whether parenting style prior to the birth of a sibling can predict changes in potential behavioural problems of the first-born child. The sample consists of forty one pregnant women, who already had a child aged between 18 and 36 months. Further factors considered were: parental psychological symptoms; parent social support and family demographics. The results indicate that no significant correlations were found between parenting styles and child behavioural change. However, there was significant change in four aspects of children's behavioural and emotional problems, as rated by parents.

The aim of the critical appraisal paper is to expand on previous issues raised during the thesis and to reflect upon my personal experience of the research process. The paper considers: methodological and ethical issues related to the empirical paper;

possible clinical applications, personal reflections and learning experiences and future research.

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Part 1: Literature review

Parenting styles: To what extent do they impact on children's development?

Abstract

This literature review provides a summary of a number of published studies which examine parenting styles and their impact on children's development. The paper considers the classification of parenting style; the antecedents of parenting style and reviews studies investigating the impact of parenting style on children's social and developmental outcomes including: conscience development, academic achievement and psychological adjustment. Different factors that might impact on the association between parenting style and developmental outcome are discussed including: developmental level, ethnicity, genetic influence and temperament. The possible limitations of parenting style are also considered. The aim of the review is to ascertain the impact of parenting style on children's development and to identify the effect of parenting style on developmental outcome.

Introduction

Multiple studies have concluded that parenting style impacts on the developmental trajectory of a child. Early research was typically more concerned with drawing from samples of children in early infancy whereas more current research tends to use samples of adolescents (ages 14-18). This review examines research spanning a wide time frame and considers early socialisation research as well as more contemporary studies. The papers that are reviewed are not an exhaustive selection of all of the research papers available in each of the addressed specific areas but instead attempt to provide an overview and representative sample of relevant research studies in the different areas considered.

Impact of Parenting Style

In the twentieth century, assumptions about the importance of within-family childhood socialisation have been part of the fabric of mainstream psychological theories (Maccoby, 2000). Evidence has shown that parents have a critical influence on children's behavioural, emotional, personality and cognitive development (Holden & Edwards 1989, Maccoby 1984, Darling & Steinberg 1993, Reitman et al 2002). Research has therefore focused on specific parenting practices and styles and their impact on child developmental outcomes. Parenting style was initially characterised by Baumrind (1967) and developed further by Maccoby & Martin (1983). Baumrind's conceptualisation of parenting style is based on a typological approach to the study of family socialisation practices. This approach focuses on the configuration of different parenting practices and assumes that the impact of any one practice depends, in part, on the arrangement of all others (Glasgow, Sanford, Dornbusch, Troyer, Steinberg & Ritter, 1997).

Baumrind's Classification of Parenting Style

The seminal study of parenting style was carried out by Baumrind (1967). This study conceptualised parenting style and identified the constructs that became the bedrock for much of the research that followed. The study investigated how childcare practices¹ impacted on child behaviour. The sample consisted of 32 children who were selected from a nursery school. They were separated into groups and classified as “mature”, “withdrawn” or “immature”. Raters observed their behaviour and used five dimensions of child behaviour (self control, exploration, self reliance, validity, and peer affiliation) to group them accordingly. Children classed as “mature” displayed self-reliance, exploration and self-control and were ranked as high on mood. Those in the “withdrawn” category were ranked low on mood, peer affiliation and were not explorative. Children in the “immature” category were those who scored a low rating on exploration, self-control and self-reliance. Data was then collated from the parents of all three groups. Measures used included parental interviews, ratings of parent behaviour from two home visits and ratings from a structured laboratory observation. The parenting styles that were identified from the data were “authoritative” (parents of “mature” children), “authoritarian” (parents of withdrawn children) and “permissive” (parents of “immature” children).

The small sample size of this study with an N of only 32 is a clear limitation. It makes it difficult to separate out sampling and measurement error and implies that the parenting styles may not be representative of the general population.

Furthermore, it is a cross sectional design, therefore it is more difficult to attribute

¹ The terms ‘parenting style’, ‘child care practice’ and ‘child rearing’ are used interchangeably according to the preference of the primary author.

how much the childcare practices alone impacted causally on the children and whether this would change over time. If the children's and the parent's behaviour could have been assessed at two or more time points then the impact of the parenting practices could be more clearly established and a more causal link could be drawn. An unequivocal causal inference cannot be drawn and alternative explanations (the children feeling unwell, being tired, maltreatment, social economic status) for the children's behaviour cannot be completely ruled out. However, this study was a catalyst for other researchers to further investigate childcare practices using more rigorous methodological designs and larger participant samples.

In light of the various limitations of Baumrind's research and also subsequent research, Maccoby and Martin (1983) redefined this typology. They added dimensions onto Baumrind's original constructs categorizing parenting style according to levels of "demandingness" (control, supervision, maturity demands) and responsiveness (warmth, acceptance, involvement). The four-fold typology consisted of: authoritarian, authoritative, permissive and uninvolved. The primary difference between the two models is that Maccoby and Martin made potentially important distinctions between aspects of permissive parenting, namely incorporating two types of permissive parenting: permissive and uninvolved (Glasgow et al., 1997).

While these dimensions of parenting style are the most commonly used by developmental researchers, a variety of other, broadly related, definitions are employed in the studies described in this review. This review uses Maccoby and Martin's framework for classifying dimensions of parenting style and where possible

other definitions used by individual studies are interpreted with respect to these overarching styles. It is important for the reader to have a clear understanding of the parenting style categories referred to, therefore a brief description of each will follow.

Authoritarian Parenting Style

Authoritarian parenting refers to patterns of parenting behaviour characterised by control and maturity demands and lack of responsiveness and communication. Parents demonstrating this style are typically described as not focusing on the demands that their children place on them but instead consider their own needs to be paramount. These parents are deemed to understand that the child has needs but limitations are placed around the extent to which they can express them. Children² are expected by these parents to restrict their demands and adhere to their parents' wishes. Such parents are seen to place strong emphasis on maintaining their authority and ensuring that their children obey them. Generally, it is likely that when children do not obey their parents harsh punishments will follow (Maccoby and Martin, 1983).

Authoritative Parenting Style

Parents who display an Authoritative parenting style are seen to balance their own needs with those of their child. The parent is described as thoughtful and attempts to respond to the child in a manner that takes into account the parent's and child's needs. It is characterised by the parent having high levels of control, responsiveness, communication and maturity demands.

² When the term children is used it refers to children aged from birth to adolescence.

Permissive Parenting Style

Parenting labelled as permissive is characterised by a tolerant, accepting attitude towards children's impulses. Broadly speaking, there is little authority or restrictions imposed on the child and punishment is rarely used. There are not many rules regarding the child's routine and they are allowed to regulate their own behaviour and make their own decisions. Permissiveness is reflected by the parent imposing low levels of control and maturity demands and emphasising communication and responsiveness.

Uninvolved Parenting Style

Uninvolved parents have low levels of both responsiveness and demandingness and can be neglectful of their children (Glasgow, Sanford, Dornbusch, Troyer, Steinberg & Ritter, 1997). Such parents are described as being concerned with their own activities and are not concerned with those of their children. Often, these parents prefer not to invest much time or effort into interacting with their child.

Table 1 illustrates that an authoritative parenting style comprises the largest number of desirable parenting characteristics at the greatest magnitude.

Table 1.
Characteristics of Parenting style (Maccoby & Martin, 1983)

Parenting Style	Parental Qualities	
	High Levels	Low levels
Authoritarian control , maturity demands		communication, responsiveness
Authoritative responsiveness, communication, control, maturity demands		-
Permissive	communication, responsiveness	control, maturity demands
Uninvolved	-	responsiveness, demandingness,

Antecedents of Parenting Style

Little is known about why parents adopt different parenting styles. Belsky (1984) asserted that parenting is determined by multiple factors in the broader social context, the experiences and psychological functioning of the parent, and characteristics of the child. Specifically, the model focuses on three domains: a) the personal psychological resources of the parents; b) the characteristics of the child; and c) the contextual sources of stress and support that include marital relations, social networks and the occupational experiences of the parents. He suggested that factors in the parent are most central to parenting competence and often mediate broader social variables and parenting styles. In support of his emphasis on parent's experience and psychological functioning a number of studies have identified meaningful relations between a mother's own child rearing history and depression and her own styles of parenting or discipline (Bluestone & Tamis-LeMonda 1999). Mothers' cognitive appraisals of their own childhood experiences, such as their perceptions of the fairness or harshness of punishment and the degree of rejection

they experienced as children predict various parenting behaviours, including the endorsement or use of physical punishment to maintain discipline. Parents who report experiencing low levels of nurture during their childhoods have been found to sanction the use of physical punishment to maintain discipline (Hunter & Kilstom 1979). Furthermore, those who perceive more rejection in their childhood have been found to display more negative affect towards their own children (Bluestone & Tamis-LeMonda, 1999). In Baumrind's (1967, 1970) studies there does not appear to have been a focus on why parents display different parenting styles and there is more emphasis on the child's behaviour relating to the parenting style. Her model does not seem to include social and environmental influences, which would perhaps have enriched the model.

In the sections that follow, studies are reviewed that have investigated the role of parenting styles in relation to several significant areas of children's social functioning.

Conscience Development

Hoffman (1970) carried out a systematic review of studies that had examined parenting style in relation to children's conscience development. Hoffman (1970) summarised data from eight studies where child rearing variables and children's moral or conscience development were assessed through projective measures, such as story completion. The results of the meta-analysis indicated that approximately half the studies reviewed demonstrated no significant relationship between child rearing variables and measures of conscience. Significant correlations that were

identified were between authoritative parenting style and low scores on measures of conscience.

More recently, Kochanska & Aksan (1995) carried out a longitudinal study investigating the socialisation of conscience. The sample consisted of 103 mothers and their children aged between 26-41 months old. They were observed in three contexts and ratings were taken of maternal control over the child and the positive affect between mother and child. A further variable considered was child compliance. The children were observed in different situations where they were either involved in a "Do" task, for instance being asked by their mother to put toys away or a "Don't" task, such as being told they were not allowed to play with certain toys. The children were rated for either compliance or non-compliance with their mother and for the level of mother-child affect observed. Consistent with expectations, all forms of children's non-compliance were associated positively with maternal forceful negative control and negatively with 'gentle guidance', which would be considered aspects of authoritarian and authoritative parenting respectively. Furthermore, maternal-child positive affect, which may also be related to authoritative parenting was strongly positively associated with child 'committed compliance' and strongly negatively associated with defiance.

This research thus provides further support for the view that authoritative parenting is associated with children's moral development and that harsh, punitive or authoritarian parenting may be linked with children's non-compliance. Collectively, this study and those reviewed by Hoffman (1970) suggest that authoritative styles of parenting may be helpful in promoting children's development in relation to moral

reasoning. Nevertheless, such an interpretation of the study rests on the assumption that parenting is causally implicated in children's moral development, which the aforementioned cross-sectional studies are unable to demonstrate conclusively.

However, the following study attempted to establish a causal link between parenting and child moral development.

Walker & Hennig (1999) carried out a longitudinal qualitative study investigating the relationship between parenting style and the development of moral reasoning. Sixty-one families with children from four different school years were interviewed individually and rated while having a family discussion. Children completed Kohlberg's Moral Judgement Interview at two time points two years apart. In order to assess moral development over time, children were re-interviewed two years later. Each participant's response was coded and collapsed into the categories: operational; representational; informative; supportive; cognitively interfering and conflictual. A hierarchical cluster analysis was used to generate profiles and meaningful patterns. The results suggest that two clusters were associated with minimal moral development in children and were characterised by parents in operational/informative and cognitively interfering/conflictual categories (challenging child's reasoning, devaluing, criticising ideas). Parents displaying representational and supportive interactions (praise, listening, encouragement) were associated with children who had the highest levels of moral development.

This is an interesting study and the design uses language to examine parent-child interactions to try and understand them. Although the results suggest that parental encouragement and support facilitate children's moral development and that parental

hostility and conflict impede it, it is difficult to relate these findings to specific parenting style categories. The authors did not specifically use Maccoby and Martin's or Baumrind's model therefore a direct comparison cannot be made. Although, these traits of different parenting style overlap with authoritarian and authoritative parenting styles respectively. Hierarchical cluster analysis is also an interpretive measure, which weakens the design somewhat. The study offers more of a description of the type of parental interaction, which facilitates children's moral development. It has been included in this review as the study offers interesting data with regard to how traits of parenting style can impact on children's development.

Psychological Adjustment

Several studies have investigated the relationship between parenting style and psychological adjustment in childhood and adolescence. Gray and Steinberg (1999) administered a two-part self-report questionnaire to 8,700 students aged between 14 and 18 years old. The questionnaires included indices of authoritative parenting and a set of instruments assessing different aspects of adjustment. These included drug and alcohol subscales, anti-social behaviour measures, self-reliance and school deviance. The sample was relatively diverse in terms of ethnicity, family structure and socio-economic status. Correlations suggested that there were associations between two aspects of authoritative parenting and behaviour problems. Parental acceptance – involvement measured the extent to which the parents were perceived as loving, responsive and involved. Behavioural control ($r = -.07, p < .001$) and parental acceptance - involvement, ($r = -.30, p < .001$) were significantly and negatively correlated with behaviour problems. The measures were reduced to a cluster called behavioural problems, which makes it difficult to identify how each individual

behavioural problem relates to parenting style. Of course, the cross sectional design limits the conclusions that can be drawn regarding the causal relationship between parenting and behaviour problems. Furthermore, the data was derived entirely from adolescent self-report measures, which resulted in the measurement of parenting being based on the subjective experience of the adolescents, rather than more objective observational methods.

Lamborn, Mounts, Steinberg & Dornbusch (1992) looked at patterns of adjustment among adolescents from families described as authoritative, authoritarian, indulgent, and neglectful families (which broadly parallel the categories described by Maccoby and Martin, 1983). Families of approximately 4,100 adolescents were classified into four groups on the basis of adolescents' ratings of their parents on two dimensions: acceptance/involvement and strictness. Outcome variables included self-reliance (e.g. ability to make decisions), psychological symptoms (e.g. depression), drug use and delinquency (e.g. carrying weapons). The overall pattern of findings indicated that adolescents who characterise their parents as authoritative have the most positive levels of competence and adjustment levels across the different outcome variables. They had significantly lower levels of behavioural problems and fewer psychological problems than those from neglectful homes, although they did not differ from adolescents in either authoritarian or indulgent homes. In addition, there was no significant difference between children from authoritative homes and those from authoritarian in terms of delinquency and drug use. As it was based on cross-sectional data and adolescent self-reports, this study also is unable to determine whether objectively measured parenting behaviour causally influences the development of behaviour problems. Thus, longitudinal or experimental studies are

critically needed to address this important issue. One study found that aspects of authoritative parenting style have been found to promote better pro-social behaviour and adjustment in adolescents. However, the results of the following study do not fully support those of the first.

Academic Success

Steinberg, Elmen & MOUNTS (1989) investigated the longitudinal relation between authoritative parenting (acceptance, psychological autonomy and behavioural control) and school achievement in a sample of 120 children aged 10 – 16. Multiple regressions were used to examine the relations between parenting practices which were rated in 1985 and school performance one year later. All paths were significant at $p < .10$ or better with $f(11,92) = 13.64, p < .0001$, whilst controlling for previous academic performance. The results suggest that there may be a causal link between all three aspects of authoritative parenting and increases in school grades. It is possible that such attitudes mediate the association between parenting and school achievement (Steinberg, Elmen & MOUNTS, 1989). Nevertheless, the study relied on adolescent self-reports of parenting style and did not include additional observations of parent-child interaction.

Following on from this research Steinberg, Lamborn, Dornbusch and Darling (1992) carried out a longitudinal study investigating the impact of authoritative parenting, school involvement and encouragement to succeed on adolescent school achievement. The sample consisted of 6400, 14-18 year olds. Self-report measures were used to gain information about parenting practices in 1987. Data was also collected in 1987 and 1988 on academic achievement. Correlations were conducted

between authoritative parenting and the two academic indices assessed one year later. Positive correlations were found, although the magnitude of the correlation was quite small ($r \sim .27$). The results support the view that improvement over time in academic success may be causally linked with authoritative parenting, although the magnitude of the effect may be modest. A variety of potential confounding factors were taken into account, including social economic status, ethnicity and family structure and the study was large and ethnically diverse (43% being from ethnic minorities).

Lamborn, Mounts, Steinberg & Dornbusch (1992), reviewed in the previous section, also looked at academic competence as an outcome variable. They found that authoritarian and authoritative adolescents had higher scores on measures rating academic competence than those from neglectful or indulgent families. This is perhaps not that surprising as a stable home life is more likely to facilitate better performance in school. Children's academic competence varied substantially depending on the families parenting style, with children from authoritative parents doing significantly better than those from authoritarian and neglectful families, although the size of the difference was substantially larger for the neglectful group.

Gray and Steinberg (1999), reviewed previously, also looked at the associations between authoritative parenting and academic success. The three dimensions of authoritative parenting looked at demonstrated significant associations with academic competence. However, the effect sizes revealed that behavioural control exerted a small effect ($d = .14$) on academic competence and both acceptance involvement and autonomy granting demonstrated a small to medium effect size ($d =$

.3). Although the effect sizes are small the results suggest that authoritative parenting contributes to academic success.

The conclusions drawn from these studies suggest that authoritative parenting is associated with positively influencing adolescent academic achievement but there is not strong empirical evidence to support this. However, all five studies found relationships between the variables and support the notion that authoritative parenting may increase levels of academic success.

Summary

Broadly speaking, a number of relatively well controlled and large-scale studies suggest that parenting style may be associated with individual differences in children's moral development, social adjustment, psychological adjustment and school performance. Some longitudinal data is consistent with a possible causal effect. Nevertheless, several limitations of these studies limit the conclusions that can be drawn. In particular, only a minority of studies have used rigorous observational measurements of parenting behaviour and only a minority involve large-scale longitudinal data. Furthermore, no studies have directly intervened in parenting style and measured the resulting impact on children's functioning. Nevertheless, a large number of clinical trials have shown that broadly related aspects of parenting behaviour can be effectively changed using various treatment packages and do lead to improvements in several areas of children's behaviour and mental health (a detailed review of this literature is beyond the scope of this paper). Despite these positive findings, several empirical and interpretational issues remain unresolved. In particular, there is ongoing debate regarding the role of cross-cultural differences in

parenting, and on the role of child effects in the link between parenting and children's outcomes. The studies discussed so far in this review have overlooked other sources of influence and have assumed there is a uni directional causal pathway from parent to child. Another assumption these studies have made is that parenting styles have consistent, universal effects regardless of cultural context. The following sections will address these assumptions by reviewing studies, which examine cultural and genetic influences.

Ethnicity

Steinberg, Mounts, Lamborn & Dornbusch (1991) point out that a limitation of previous studies investigating authoritative parenting was a strong focus on white, middle class families. Steinberg et al. (1991) wanted to examine whether the benefits of authoritative parenting transcend the boundaries of ethnicity, socio-economic status and household composition. They reviewed studies that investigated ethnicity and authoritative parenting style and concluded that studies of American samples show that adolescents fare better when their parents are authoritative regardless of their racial and social background or their parents' marital status.

Baumrind (1967) conducted an exploratory study investigating socialisation effects on African American children. The 16 children in the sample were taken from a larger study investigating patterns of parental authority and their effects on the behaviour of pre-school children. This sub group was analysed separately to attempt to ensure the larger social context was considered. The conclusions from this very small N study were that African American families produced more self-assertive and independent girls. Baumrind (1967) suggests that when the African American

families were compared to White norms they were perceived as authoritarian. These results can only be considered as explorative but provoke interesting thoughts concerning different cultural contexts and the meaning attributed to different behaviours within these contexts.

In a review Steinberg (2001) challenges the view that African and Asian American adolescents fare better with authoritarian rather than authoritative parenting.

Steinberg (2001) argues that minority children who were raised in authoritative homes fare better than their peers from non-authoritative homes with respect to psycho-social development, symptoms of internalised distress, and problem behaviour. He does not provide specific data in his review to support this argument but references previous studies that have shown authoritative parenting to be beneficial that have used large heterogeneous samples (Steinberg, Dornbusch & Brown, 1992). In order to support this argument more empirical based evidence needs to be put forward specifically concerning ethnic differences and parenting style.

Knight, Virdin and Roosa (1994) carried out research specifically looking at ethnic difference and suggest that parents from ethnic minorities have a more authoritarian style of parenting. They suggest that different behaviours can be interpreted differently or have different functional meanings in different cultural contexts. Their research compared several socialisation variables among the Hispanic and Anglo American communities. The sample consisted of 231 children aged 9-13 years and their mothers. Seventy were Hispanic children and 161 Anglo American. Self-report measures were used to look at socialisation within families. The findings suggested

there were ethnic differences in terms of parenting. The Anglo American mothers reported themselves to be less rejecting, inconsistent with discipline and controlling than Hispanic mothers. The Anglo American children compared to the Hispanic children reported their mothers to be less rejecting, controlling and hostile as well as more accepting and open in communication.

These differences may be due to a number of factors including historical and socio-cultural influences. The possibility that a more authoritative parenting style may not be as beneficial in a different cultural context must be considered. Knight et al. (1994) argue that perhaps greater environmental risk may lead Hispanic parents to interpret authoritarian parenting as providing more structure and security. Only self-report measures were used and all families were English speaking so it is difficult to know how much they are a true representation of the whole Hispanic community in America. The results do suggest that cultural context must be considered when comparing across different groups and that parenting style may be interpreted differently depending on families' culture and environment. It is unclear from this study whether authoritarian parenting is seen as better for Hispanic children. It has been identified as perhaps giving more structure and security but the question of whether this would mean that the children will have better developmental outcomes needs to be addressed.

The research reviewed so far has not addressed the role of genetic influence with regard to parenting style and the possible role of child effects on parenting. The following sections will consider the role of genetic influence and child temperament on parenting style.

Gene's versus Environment

Critics of traditional within parenting socialisation models suggest that studies investigating correlations between parenting style and child outcomes are actually quite weak and difficult to replicate. They postulate that when parent "effects" are found they tend to be effects on the way children behave at home and the relationships they develop with their parents. Baumrind's early findings, which have been widely replicated, are used as an example; the children of parents who are both responsive and firm tend to be more competent and cooperative than children of parents who are either authoritarian or permissive (Baumrind & Black, 1967). These findings have been traditionally interpreted as showing that authoritative parenting has beneficial effects on children, ignoring the possibility that the causal connection may be that competent cooperative children make it easier for their parents to be firm and responsive. Maccoby (2000) argues that parent behaviour is substantially driven by the behaviour of children and much, if not most, of the parent/child correlation can be accounted for by the child's genetic predisposition. It appears parental influence has been emphasised at the expense of other sources of influence that in fact may have great importance in shaping children's development. Critics argue such influences include genetic predisposition.

Maccoby (2000) argues that the importance of parenting in children's lives has been exaggerated in traditional socialisation studies and that the effect size reported in many widely cited studies is quite small. Maccoby & Martin's review of studies before the 1980s did show weak correlations between parenting processes and

children's characteristics. However, later studies have produced more robust findings perhaps indicating improving methods of measuring parent and child characteristics.

Collins, Maccoby, Steinberg, Hetherington & Bornstein's (2000) paper reviews the debate between early child development research which focused on parental influences on child development and contemporary parenting research which seeks to demonstrate causal links rather than correlational relationships. They also attempt to address the challenge that there is little compelling evidence of parents' influence on behaviour and personality in adolescence and adulthood (Harris 1998, Rowe, 1994). Collins et al. (2000) believe the criticisms of socialisation research are generally aimed at the early studies performed before the 1980s and postulate the current field is not reflected by these early studies. They put forward the view that in contemporary studies of socialisation, early researchers often overstated conclusions from correlational findings, relied excessively on singular views of parental influence and did not attend to the potentially confounding effects of heredity.

Research during the past two decades has undermined the implicit assumption that environment should be the starting point in explaining individual differences in development. However, what is still needed is a more sophisticated conceptualisation of the gene-environment interaction. Collins et al. (2000) maintain the view that efforts to understand the role of parents in socialisation are constrained by the traditional analytic model on which the most cited behaviour-genetic findings are based. They describe it as an "additive" model which regards heredity and environmental components as independent and separable and holds that these two components together account for 100% of the variance in characteristics (Plomin,

1990). It is argued that this has led to most behaviour genetic research ignoring the possibility that genes may function differently in different environments and instead allowing only for the main effects of genes. Plomin (1990) suggests that a primary problem in disentangling heredity and measures of environmental influences is that genetic and environmental factors are correlated.

Temperament and Parenting Style

Temperamental characteristics, defined as, “constitutionally based individual differences in reactivity and self regulation” (Rothbart & Ahadi, 1994, cited in Collins et al 2000) are thought to emerge early, to show some stability over time, but to be modifiable by experience. Statistical associations between early temperamental characteristics and later adjustment are generally found to be significant, though typically modest in size. Difficult temperament characterised by intense negative affect and repeated demands for attention, has been repeatedly associated with both later externalising and internalising disorders (Bates & Bayles 1988 in Collins et al, 2000). Caspi & Silva (1995) for example found that early resistance to control, impulsivity, irritability and distractibility predicted later externalising behaviours and social alienation, whereas shy, inhibited or distress prone behaviours predict later anxiety disorders. The study suggests that correlations between temperamental characteristics and parental behaviour could reflect bi-directional interactive processes as well as genetic linkages between parenting style and child characteristics. Research has also indicated that difficult behaviour such as proneness to distress and irritability in infants may evoke hostility, criticism and a tendency by mothers to ignore the child. These reactions have been found to be associated with avoidant or insecure-ambivalent attachment (Van den Boom, 1989 cited in Collins et

al 2000). Bates, Pettit & Dodge (1995) conducted a longitudinal study and found that infants' characteristics (e.g., hyperactivity, impulsivity, and difficult temperament) significantly predicted externalising problems ten years later and that infants' early characteristics elicited an authoritarian parenting style at four years old, which in turn predicted externalising problems when the children reached adolescence, over and above the prediction from infant temperament. This implies that even though parental behaviour is influenced by child behaviour, parents' actions contribute distinctively to the child's later behaviour.

Collins et al. (2000) argue the quality of parenting to some extent moderates associations between early temperamental characteristics of difficult behaviour, impulsivity and unmanageability and later externalising disorders. The researchers appear to conclude that although there is a bi-directional effect, ultimately the effects parents have on their children's behaviour are the most important factor in determining their child's behaviour. Moreover, Bates et al (1998) and Collins et al. (2000) postulate that restrictive parental control has been linked to lower levels of later externalising in early, difficult, unmanageable children. Indeed, after reviewing the research they argue that in this area the evidence suggests that parenting moderates these associations.

Limitations of Parenting Style

Darling and Steinberg (1993) acknowledge the strengths of Baumrind's typological approach but also highlight an inherent disadvantage of any empirically derived typology. They stipulate that the inevitable inter-correlation of different parent characteristics makes it difficult to discern the mechanism that underlies differences

among children from different types of families. This problem was highlighted in Lewis's (1981) critique and reinterpretation of Baumrind's work. Lewis questioned why strong external control such as that used by authoritative parents should encourage children to internalise their parents' values, when attribution theory suggests that strong external controls should undermine internalisation. Lewis reinterpreted Baumrind's findings and suggested that it is not the high control characteristic of authoritative families that helps children develop an independent and autonomous sense of self while conforming to rules, but rather the reciprocal communication characteristic of authoritative families and the experience children in these families have of successfully modifying parental rules through argumentation. In particular Lewis suggested that Baumrind's findings could be reinterpreted as showing that the advantages enjoyed by authoritatively reared children are attributable to their parents' openness to bi-directional communications. In their critique of Lewis, Darling and Steinberg (1993) argue that Lewis did not question the empirical validity of the association between authoritative parenting and child competence. However, she refined authoritative parenting in terms of its emphasis on mutual accommodation rather than on control. Although the validity of this redefinition remains an open question both empirically and conceptually, what has emerged are two important related points: firstly, that parenting typology captures a collection of parenting practices, which therefore makes it difficult to determine what aspects of parenting affects specific developmental outcomes; secondly, that ideas about the processes through which parenting styles influence child development are speculative rather than empirically grounded (Darling & Steinberg, 1993). One problem is that it is difficult to make the transition from hypothetical to empirical. Baumrind gathered very rich and detailed data but unfortunately this restricted the

size of her samples and it was not feasible to allow a within group comparison (Darling & Steinberg, 1993).

Reflecting on the debate between Baumrind and Lewis it becomes apparent that despite consistent evidence that authoritative parents produce competent children it is still not completely clear how or why this happens. Interesting hypotheses are offered concerning the mechanisms of how such an association may come about but the empirical evidence necessary to allow a definite conclusion about which is most valid is currently lacking. This appears to be the case for much of the research that identifies an association between authoritative parenting and beneficial impacts on children's development.

In an attempt to broaden out and incorporate other influences Darling and Steinberg (1993) put forward a model which views parenting style as a context in which socialisation occurs. The hypothesis is that parenting style moderates the influence of parenting practices by changing the nature of the parent-child interaction, therefore, moderating the parenting practices which influence child outcomes. This model is considered in the following section.

Mediating mechanisms between parenting style and children's outcomes

Darling & Steinberg (1993) have argued that there are several key issues that remain unresolved in parenting research. They put forward questions concerning 1) the variability in the effects of parenting style as a function of a child's cultural background, 2) the processes through which parenting style influences the child's development, 3) the operationalisation of parenting style. They present a model that

attempts to integrate the study of specific parenting practices and the study of global parent characteristics. They proposed that parenting style is best conceptualised as a context that moderates the influence of specific parenting practices on the child.

They argue that only by maintaining the distinction between parenting style and parenting practice can researchers address questions concerning socialisation processes that they feel have not previously been answered. In support of this model Steinberg (2001) postulates that it is more helpful to think of parenting, in particular authoritative parenting style, as an emotional context rather than a compilation of specific parenting practices. Furthermore, Steinberg (2001) believes that parenting practices are best viewed not as instances of authoritativeness, but as specific actions that have different meanings depending on the emotional climate in which they occur which can be determined by the style of parenting.

Parenting style is seen as an overall attitude of the parent whereas parenting practices are defined as specific behaviours. Darling & Steinberg argue that parenting style is a characteristic of the parent that alters the efficacy of the parents' socialisation efforts by moderating the effectiveness of particular practices and by changing the child's openness to socialisation. The model defines parenting style as a constellation of attitudes towards the child that are communicated to the child and these are taken together to create an emotional climate in which the parental behaviours are expressed. These behaviours include "parenting practices" and non-goal directed behaviours including gestures and changes in tone of the voice. It has been debated by many researchers that the values parents hold and the goals toward which they socialise their children are critical determinants of parenting behaviour.

Darling & Steinberg (1993) offer a valuable extension to original parenting style models and attempt to offer more concise empirically based explanations for the processes, which govern the impact of parenting style.

Conclusion

This review has examined a number of studies ascertaining the impact of parenting style on children's development. The studies suggest that parenting style may be associated with individual differences in children's developmental outcomes, such as moral development, social adjustment, psychological adjustment and performance at school. When considering the different classifications of parenting style, authoritative parenting style has been identified as having the most positive influence on children's developmental outcomes. Authoritative parenting style is associated with children who perform well academically and exhibit fewer internalising or externalising problem behaviours than their peers. The longitudinal studies reviewed have typically used large, diverse samples which tend to be consistent with a possible causal effect. Although correlational associations have been identified across gender, ethnicity, socio-economic status, family structure and time, an apparent difficulty with the reviewed research is that there is insufficient empirical evidence to support the particular role of authoritative parenting style. Accordingly, this makes it difficult to definitely attribute authoritative parenting as the sole reason for the beneficial impact and instead think about it more as a likely reason. Nevertheless, when considering the impact of parenting style on children's development, Authoritative parenting has consistently fared better than the other parenting styles. Of further note is the lack of rigorous observational measurements of parenting behaviour in the

majority of the studies and the lack of consideration of child effects on parenting style should also be acknowledged.

A further difficulty is that parenting style research has a number of parenting style categories in use which are not consistent across all studies. Although the majority of studies follow Baumrind's original framework or Maccoby and Martin's (1983) typology they may not put into operation the parenting styles used in the same way and have different meanings for their constructs. There is also a discrepancy across the age ranges studied and a greater focus seems to have been placed on adolescents, whereas younger children or young adults have not received the same attention.

Whilst this is understandable in terms of recruitment and follow up, as it is easier to carry out large-scale studies with an adolescent population, it seems that such studies need to be considered in terms of whether generalisations can be made across the whole population.

Given that only a minority of the studies involve large-scale longitudinal data, it is apparent that further longitudinal research needs to occur using self-report and observational measures with as diverse a sample as possible. Further research could consider directly intervening in parenting style and measuring the possible resulting impact on children's functioning. However, ethical considerations would need to be taken into account. In considering the role of parenting style on children's developmental outcome it is difficult to think about it in isolation, many other influences need to be considered including: cultural context, genetic influence, child effects and temperament before firm conclusions can be drawn.

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PART 2: EMPIRICAL PAPER

To what extent does parenting style predict behavioural changes in a first-born child following the birth of a sibling?

ABSTRACT

This study examines the impact of the birth of a sibling on the behaviour of the first-born child. It considers whether parenting style prior to the birth of a sibling can predict changes in potential behavioural problems of the first-born child.

Specifically, it investigates whether parents with an authoritative parenting style have children who display fewer behavioural changes following the birth of a sibling.

Forty one pregnant women, who already had a child aged between 18 and 36 months, were recruited. Parenting style was measured using maternal self-report and home-based observations of parenting behaviour to increase validity. A range of other factors were also considered, including parental psychological symptoms, parent social support and family demographics. The results indicate that there was significant change in four aspects of children's behavioural and emotional problems, as rated by parents. No significant correlations were found between parenting styles and child behavioural change. However, parental psychological symptoms were associated with increases in children's emotional and behavioural problems following the birth of the sibling.

INTRODUCTION

The arrival of a new baby in a household brings a multitude of changes. Studies suggest that there are changes in the way parents and children behave following the birth and it has been argued that it is a point of transition that may bring about potentially significant changes in children's behaviour and adaptation (Dunn Kendrick and MacNamee 1981, Field and Reite 1984, Nadelman and Begun, 1982). While a variety of factors may affect how children and parents negotiate this transition it is highly likely that parenting style plays a significant part. Parenting style has been found to be a significant influence on children's behaviour and functioning in a variety of other contexts and the transition to sibling-hood most likely poses significant challenges for parenting. Parenting style may therefore be an important factor in how parents prepare their children for the birth of a sibling and subsequently help them adjust to it. The purpose of the current study is to examine whether parenting style measured prior to the birth of a sibling predicts variations in the behaviour of the first-born child 1-month following the birth of the sibling in a sample of children aged 18 months to three years. The findings may be able to help to identify important sources of influence on children's adjustment in pre-school and may help determine the extent to which parenting style may be a useful focus of intervention when working with children experiencing difficulties following this potentially difficult transition to sibling-hood.

Arrival of a sibling

Dunn and Kendrick (1982) have vividly documented how apprehensive mothers may be before the birth of their second child with regard to how the first born will

respond. Indeed, recognition that sibling-hood may be a period of intense developmental challenges was noted by Freud, who provided a compelling illustration of one view of what the arrival of a sibling may mean to a first-born:

“It is of particular interest to observe the behaviour of small children up to the age of 2 or 3 or a little older towards their young brothers and sisters.... I am quite seriously of the opinion that a child can form a just estimate of the set back he has to expect at the hands of the little stranger.” (Freud, 1967, pp. 251-252)

The effect of the birth of a sibling has been an area of discussion amongst clinicians of different disciplines for a number of years. The effects of “dethronement” or “displacement” are considered by some to be a normal event and by others a significant milestone. Dr Spock (1969) and Winnicott (1971) suggested that the event could be potentially valuable to the first born as they can experience “finding hate”, which these authors considered developmentally important. However, Winnicott also stated that it is difficult for the child to find a legitimate expression of that hate and hence while the transition may be important, it may also pose potential problems if not negotiated sensitively.

Changes in Children’s Behaviour

Despite this long history of interest within the clinical field, empirical research on the transition to sibling-hood has been relatively sparse. Stewart, Mobley, Tuyl & Salvador (1987) carried out a longitudinal study investigating first-borns’ adjustment to the birth of a sibling. They observed and interviewed 41 families at 1-month before their due date and then four times following the birth of the sibling (one, four, eight, and 12 months after the birth). They collected information on a variety of adjustment behaviours, including signs of anxiety, regressive behaviours, and

confrontation with their sibling. They observed that the most common (51%) pattern of changes in the first-born's behaviour was an increase in problems in the three areas studied (regressive behaviour, anxiety, and confrontation) one month after the birth. This was followed by continued confrontations with the parents and the baby sibling at eight months, and confrontations that focused on the sibling at 12 months. Another notable result was that 12% of the children were deemed as having high levels of anxiety, confrontations and regressive behaviours during the first month following birth, but over the following year anxious and regressive behaviour levels decreased, with only confrontations remaining. Their results were consistent with Dunn's similar study (Dunn, 1981) in that there was an increase in problems with toilet habits, demands for bottles, clinginess and other anxiety displays, with increased confrontations and levels of aggression following the sibling's birth. Furthermore, the data indicated that the reaction of the first-born varies with respect to both the child's gender as well as the gender of the sibling. Despite these findings, it is notable that in both studies child adaptation over the first year showed remarkable variation in patterns of change, with some children experiencing initial upset with an eventual decline, some children experiencing very little disruption at any point, and some children displaying relatively dramatic and persistent problem behaviours over time.

Parenting and negotiating sibling conflict

According to Sanders (2004), when negotiating sibling conflicts, parents need to balance two sets of priorities. Whilst considering the need to manage difficult or aggressive behaviour, the parent must also consider whether the children are able to manage the conflict on their own and how necessary it is to intervene. The arguments

against intervention are that children need to learn to resolve conflicts without the need for outside intervention. If parents intervene too readily in sibling squabbles, children may not learn to develop the abilities to find solutions to conflicts (Sanders, 2004). It may also be valuable to learn that not everything is always fair and that there are times when one may have to accept an injustice as inevitable when it comes from factors beyond one's control. Furthermore, attending to sibling disputes may cause an exacerbation in the behaviour as it achieves the child's goal of increasing parental attention. On the other hand, intervention may be necessary because the younger children may succumb to the will of older siblings and may be forced by an older sibling to comply. Sanders (2004) argues that this situation can easily cross the threshold into abusive behaviour if the older sibling does not learn that there are limits to what may be imposed on younger siblings. In support of this argument Sanders quotes a study by Bullock and Dishion (2002), which examined the development of children displaying aggressive and anti-social behaviour within families. They suggest that parents who do not attend to and manage sibling play may inadvertently allow conflicts to be solved by means of coercion. Certainly, the way in which parents deal with bouts of aggressive or otherwise non-compliant behaviour in relation to a younger sibling may be a critical factor in determining how successfully the transition is negotiated.

Parenting Style

There are a number of ways in which parenting style has been conceptualised and measured (Baumrind 1967, Darling and Steinberg 1993, Martini et al, 2004).

Baumrind (1967) produced the initial categories which centred around the construct of parental control and this concept was developed further by Maccoby & Martin

(1983). They described four parenting styles that are referred to in current literature as authoritarian, authoritative, permissive and uninvolved. Authoritarian parenting refers to the parent having high levels of control and maturity demands and low levels of responsiveness and communication. Authoritative parenting, by contrast, reflects parenting typified by high levels of control, responsiveness, communication, and maturity demands. Permissiveness is characterised by low levels of control and maturity demands and high levels of communication and responsiveness. Uninvolved parents have low levels of both responsiveness and demandingness and can be neglectful of their children. Such parents are more concerned with their own activities and are less concerned with those of their children, they could be described as self-centred rather than child centred (Maccoby and Martin, 1983). In children and adolescents, parenting style has been shown to impact on outcomes and developmental tasks, ranging from academic achievement to psycho-social development (Lamborn, Mounts, Steinberg and Dornbusch, 1991, Steinberg, Lamborn, Darling, Mounts and Dornbusch 1991, Gray and Steinberg (1999). Coopersmith (1967) for example investigated how parenting style impacted on children's self esteem and found that Authoritarian parenting was associated with low self esteem in boys. A longitudinal study conducted in Finland compared children-centred parents (Authoritative) with parent-centred parents (Uninvolved) across their life span. The results indicated that children with parents who had an Uninvolved parenting style were more likely to be impulsive, disinterested in school, would start drinking and dating earlier and lacked long term goals and emotional controls (Pulkkinen, 1982).

The available evidence on parenting style and how it impacts on children's responses to transitional events is limited. One area which has received more attention from researchers in relation to its impact on the behaviour of the first-born following the birth of a sibling is attachment. Teti (1989) investigated the relationship between attachment and how first-born children respond to the birth of their sibling. The results indicated that children with a secure attachment were less likely to behave aggressively when their mother played with the new baby. Given the central role played by parenting processes in attachment (particularly parenting sensitivity, see De Wolff and van IJzendoorn, 1997), the findings of Teti (1989) suggest that parenting factors may be important in the quality of older siblings' adjustment to the birth. However, Teti (1989) restricted his investigation to naturalistic observations of child-sibling interaction, so the extent to which attachment and related parenting processes relate to standardized assessments of problem behaviour remains to be tested. Teti also found maternal psychiatric symptoms and social support to be confounding factors with regard to changes in infant behaviour. This informed the hypothesis of the current study as due to this interesting finding maternal psychiatric symptoms and social support were controlled for.

Baydar, Hayle & Brookes-Gunn (1997) carried out a longitudinal study investigating changes in socio-economic development, achievement and self-concept following the birth of a sibling in a cohort of pre-school aged children over a two and four year period. They tested whether the birth of a sibling was associated with changes in the family environment and in children's developmental trajectories. The first assessment used a sample of 673 children who were aged between three and five years old. A sub-sample of 433 children from the initial sample were followed up

two years later. A range of measures were used including, the Behaviour Problems Index (Peterson & Zill, 1986), the Global self worth scale and reading achievement tests. The study provided evidence that the effects of the birth of a sibling are associated with substantial changes in the child's immediate family environment. Perhaps not unexpectedly, the birth is associated with a decrease in maternal employment and a decrease in the material resources of the family. However, a corresponding general decline in the emotional resources provided by the mother did not occur. Birth is also associated with a significant increase in behavioural problems of the older children, as reported by their mothers. The most significant impact of the birth was on self-esteem, which declined following the birth. However, the changes of scores on the Behavior Problem Index over the four-year span indicates the increase in these scores is not long-term, at least for the majority of children. In terms of parenting style they found that mothers seemed to become increasingly punitive with girls following the birth of a new baby. They detected an increase in more controlling parenting styles, which had a larger negative impact on girls.

Given the potential importance of parenting processes in negotiating the transition to sibling-hood, it is surprising that few studies have directly addressed this topic. The current study aims to examine several dimensions of parenting behaviour prior to the birth of a sibling and relate this to the older sibling's adjustment one month after the birth.

Direct evidence regarding the role of parenting style on pre-school children's emotional and behavioural adjustment following the birth of a sibling is thus currently lacking. The current study tests the hypothesis that more authoritative and

less authoritarian or permissive parenting, measured during the last trimester of pregnancy, will be associated with smaller increases in problem behaviour following the birth of a sibling. The study uses detailed observational methods and questionnaire data in a short-term longitudinal design.

METHOD

This was a joint project and the other project related to this one investigates the impact of attachment on the behavioural changes of a first-born child following the birth of a sibling.

Ethical Approval

Ethical approval was obtained from the Charing Cross Research Ethics Committee (see appendix 1).

Participants

The participants were recruited from the ante-natal clinic at Queen Charlotte's and Chelsea Hospital and through health visitors and midwives. Professionals from each setting helped identify potential participants. In addition, information letters and consent forms (see appendix 2 and 3) were handed out to women attending their 20-week scan and the women had the opportunity to consider whether they wished to participate and have any questions they had answered.

Women were recruited who were currently pregnant and had a child of between 18 months and three years old. As the children involved in the study were under three years old their consent could not be sought but parents were advised that they would

be giving consent for themselves and their children. It was made clear that confidentiality was paramount and that the videotapes would only be seen by the researcher and would be destroyed after the study had been completed.

Initially a total of 61 women agreed to participate in the study. Of those, 20 either did not meet eligibility criteria due the age of their child, or gave birth to their second child before all the relevant data was gathered. The final number of participants was 41, all had children aged between 18 months and three years old. Participants were excluded if they had any difficulties during pregnancy and were deemed high risk by staff at the hospital. Participants were also excluded if they had very limited English language skills which were not sufficient to comprehend the measures being used.

The ages of the mothers ranged from 29 to 42 and the mean age of the mothers was 33.7 and they all reported that they were currently married or co-habiting. In terms of ethnicity, six mothers were from non White European backgrounds (three British Asian, one Korean, one New Zealander, one mixed race) therefore the majority of the sample were White British. The majority of the participants in this sample were university educated and were in middle-income strata.

Procedure

For the initial assessment participants were visited at their homes by the researcher and were video taped for one hour in a natural interaction with their child.

Additionally at this time several questionnaires were completed. Four weeks after the birth of the second born child a second Child Behavior Checklist was completed by the mother and returned via post to the researcher.

Power Calculation

As there are no studies focusing on parenting style that could be used as a basis for a power calculation the Teti (1989) study on attachment security and siblings was used, which indicated that there are changes in security before and after the birth of a sibling. This change in behaviour was found to be significant in the Teti study and furthermore Teti found a large effect size, the reported means indicated a sample size of 20 would be needed to detect this reliably at $\alpha = .05$. This study also predicted an association between parenting style and behavioural problems. This study was designed in order to have sufficient power to reliably detect an effect size of $r = .3-.4$ using a correlational design. Power analyses indicated that 50-60 participants would therefore be needed.

Measures

Parenting

Mothers' reports of parenting style and specific parenting practices were assessed using the Raising Children Questionnaire (see appendix 4). This is a self-report measure with items concerning multiple dimensions of parenting practices (NICHD study of early child care, 1995). This questionnaire is an extensive revision of Ellen Greenbergers' s Raising Children Checklist (Greenberger & Goldberg, 1989). The Raising Children Questionnaire was designed to assess parenting strategies along three dimensions: harsh, firm, and lax. It included 28 statements that described feelings about raising children, and respondents were asked to circle one of the four responses that best described how they felt. The response categories ranged from one = "Definitely No" to four = "Definitely Yes" (Greenberger and Goldberg, 1989). The

questionnaire was coded by the 28 questions being spilt into the three subgroups (harsh, firm, lax) and the responses being reflected and summed to give an overall score.

The Coding Interactive Behavior (CIB) Scales were used to measure researcher observed parenting style (Feldman, 1998). The CIB is a global rating scheme for coding adult-infant interactions for infants aged 12 months to 36 months. The coding scheme consists of 43 scales; 22 are adult scales, 16 are child scales and five are “dyadic” scales. Scales address the global nature and flow of the session and the interactive involvement and the individual style of the parent. Coding was completed after observing an entire session and reflects the observer’s judgement with regards to the relative levels of specific behaviours and the nature of affective/attentive states. The scores were rated based on the interaction between the mother and child and a score was given between 1-5 for each scale, which was clearly described in the instruction manual. The CIB has been used to evaluate mother child, father child, and caregiver child interactions in numerous samples. It has been applied in a range of normal and “at risk samples”. The CIB has shown sensitivity to variations in adult and child interactive behaviour related to infant age, cultural settings, the interacting partner (mother, father, caregiver), biological risk, social-emotional risk (sleep disorders, feeding disorders, aggression, attachment disorders) and parental factors including depression and anxiety (Feldman, Greenbaum, Mayes and Erlich 1997, Feldman, 2007). The CIB subscales were divided into three specific subscales, which were used to measure parenting style. The subscales were based on a previous Feldman (2000) study where CIB subscales were grouped together and used to measure specific parenting constructs. Three factors were calculated: 1) Parent

Negativity based on five scales: hostility, intrusiveness, depressed mood, forcing and manipulation and criticizing (Cronbach's $\alpha = .69$); 2) Supportive Presence includes: acknowledging, vocal appropriateness & clarity supportive presence and resourcefulness (Cronbach $\alpha = .84$); 3) Limit Setting included only one subscale from the Coding Interactive Behavior manual therefore a cronbach α could not be calculated. In this study inter rater reliability was measured using eight double rated mother infant interactions. Intra class correlations were in the range of good to excellent ($\alpha = 1.000$ to $\alpha = .7692$) for eight subscales with two falling in the weak-moderate range ($\alpha = .2286$, $\alpha = .2353$). The two subscales with weak correlations were Criticizing and Vocal Appropriateness. The two researchers involved in the study coded the data.

Background Factors and Covariates

The Help And Support Questionnaire (Sarason, Sarason, Shearlin and Pierce, 1987) was administered which is a six item self-report measure intended to assess social support. There are two parts to each item on the questionnaire. The first part of the item assesses the number of available others the person feels they can turn to in times of need in a variety of specific situations (e.g. who accepts you totally including your worst and best points). The second part of each item measures the individual's degree of satisfaction with the perceived support available in that situation. Participants indicate how satisfied they are on a six-point Likert scale from "very satisfied" to "very dissatisfied". The Help and Support Questionnaire is reported to have high internal validity and is a widely used psychometrically sound measure (Sarason, Sarason, Shearlin and Pierce, 1987).

The Brief Symptom Inventory (Derogatis, Dellapietra, and Kilroy, 1992) was used as a self-report assessment intended to measure psychiatric symptoms. It is a widely used multi dimensional measure consisting of 53 questions relating to nine clusters of syndromes (Somatization, Obsessive Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, Psychoticism). Each participant's scores were summed to yield a Brief Symptom Inventory total score.

Child Behaviour Problems

The Child Behavior Checklist (CBCL) for ages one and half to five years (Achenbach & Rescorla, 2000) was used as the parental self-report measure of their child's behaviour. The CBCL for ages 1 and half to five years old contains 99 specific behavioural and emotional problem items (e.g. Clings) that parents rate as *not true (zero)*, *somewhat or sometimes true (one)*, or *very often or often true (two)* of their children. Based on extensive psychometric analyses, which have included exploratory and confirmatory factor analyses, Achenbach and Rescorla (2000) identified in children from aged one and half to five years, seven clusters representing common problems or syndromes from 67 of the items on the CBCL/1.5–5: Emotionally Reactive (nine items), Anxious/Depressed (eight items), Somatic Complaints (11 items), Withdrawn (eight items), Sleep Problems (seven items), Attention Problems (five items), and Aggressive (19 items). For each child, the zero–one–two scores on the problem items were summed to yield a Total Problems score, Internalising behaviour (fearful, shy, anxious, and inhibited) and Externalising behaviour (aggressive, antisocial, and under controlled) scores, and seven syndrome scores.

Questionnaires were filled out at time point one and again one month later following the birth of the sibling. The Child Behavior Checklist was completed during the last trimester of pregnancy and then completed again one month after the birth of the second baby.

Data Analysis

At the preliminary stage of analysis, associations between social support, socio-economic status, parental psychopathology and parenting style were tested using correlations, in order to identify factors that may need to be controlled for when examining the main hypothesis of this study. In order to examine the overall change in behavioural problems pre-natally to one month post natally a repeated measures ANOVA was conducted. Correlations were used to examine associations between parenting style and change in behaviour problems, using a simple difference score. Where significant confounding effects were found, statistical controls were planned, using regression, to test the effects of parenting after partialling out associations with any confounding factors.

RESULTS

The first section (Tables 1-4) presents descriptive statistics on the main self-report and observational measures used in the study. The second section (Tables 5-10), which addresses the main research question, presents correlations between measures and constructs, inter correlations for individual measures, and ANOVA data showing behavioural change at time point 1 and 2.

Table 1 presents the Raising Children Questionnaire subscales. The Raising Children subscales have a possible score range from 10-40 with higher scores indicating a greater level of harsh, firm or lax parental control. The lack of range in the sample could indicate relatively low variability in the different parenting styles in this low risk sample.

Table 1. Descriptive data on parenting style questionnaires and subscales

Variable	M	(SD)
Raising Children subscales:		
Firm control	28.91	2.83
Harsh control	23.68	3.74
Lax control	21.18	3.10

N = range from 40-41

Table 2 presents data from the Coding Interactive Behavior Subscales which was the observer-rated measure of parenting style. The subscales representing more positive aspects of parenting have higher means (limit setting, supportive presence resourcefulness, acknowledging, vocal appropriateness) whereas subscales representing more negative qualities (parent depressed mood, negative affect) had lower means suggesting they were identified less. This perhaps indicates the sample has more parents with an authoritative parenting style and less parents with authoritarian, uninvolved and permissive parenting styles (see appendix 4).

Table 2. Descriptive data from Coding Interactive Behavior Subscales

Variable	M	SD
Forcing-Physical Manipulation	1.51	0.75
Overriding-intrusiveness	1.73	0.87
Acknowledging	4.41	0.84
Parent-Depressed mood	1.20	0.51
Hostility	1.22	0.33
Vocal Appropriateness, clarity	4.73	0.59
Appropriate Structure-Limit Setting	4.80	0.71
Criticizing	1.10	0.37
Supportive Presence	4.73	0.50
Resourcefulness	4.56	0.63

N = 40

Table 3 shows data from the Brief Symptom inventory which indicates that the obsessive-compulsive subscale has the highest mean score of 0.69 which is also higher than the norm in the general population for this demographic.

Table 3. Descriptive data on Social support and Brief Symptom Inventory subscales which measure maternal psychiatric symptoms.

Variable	M	(SD)	Norm Mean
Brief Symptom Inventory subscales:			
Somatization	0.33	3.17	0.46
Obsessive Compulsive	0.69	3.57	0.54
Interpersonal Sensitivity	0.35	2.16	0.55
Depression	0.16	1.79	0.56
Anxiety	0.23	2.29	0.54
Hostility	0.37	1.50	0.45
Phobic Anxiety	0.17	1.86	0.44
Paranoid Ideation	0.24	1.58	0.49
Psychoticism	0.10	1.99	0.34
Help and Social Support subscales:			
Number of People	4.28	2.13	
Satisfaction with support	5.42	0.77	

This measure rates maternal psychiatric symptoms N = 40

Table 4. Descriptive data on child behaviour at Time Point 1

Variable	M	(SD)	Norm Mean
Child Behavior Checklist subscales:			
Emotionally Reactive	1.73	1.84	4.7
Anxious/Depressed	1.83	1.84	4.1
Somatic Complaints	1.30	1.58	4.9
Withdrawn	1.00	1.53	3.9
Sleep Problems	2.41	2.83	4.8
Attention	2.43	2.03	3.9
Aggressive	9.09	4.66	15.1

N = 40

Table 4 shows the Aggressive behaviour subscale of the CBCL was 9.09, which is notably higher than all other subscale means and may indicate relatively high levels of aggressive behaviour were being displayed in the sample as a whole at time point one. All the mean subscale scores are considerably less than those for the general population, which is to be expected considering the age range of the normative sample is 1.5-5 years and the age range of the study sample is 18 –36 months.

Associations between measures of parenting

Correlations between self-report and observer-rated measures of parenting style were carried out to examine the extent to which they were related. As can be seen in Table 5, the correlations between the two measures of parenting style were relatively strong with five measures of self-report and observer-rated measures correlating significantly. There is a significant positive correlation between lax control (Raising Children) and parent negativity (Coding Interactive Behavior), with higher levels of

self-reported lax control associated higher levels of observer-rated parent negativity (Table 5). This association also occurs between harsh control and parent negativity (Table 5).

Table 5. Correlation between Coding Interactive Behavior subscales (observer-rated) and Raising Children Questionnaire (self-report) subscales

Subscales	Firm control	Lax control	Harsh Control
Parent Negativity	-0.353*	0.587**	0.527**
Supportive Presence	0.490**	-0.015	-0.318*
Limit Setting	0.127	0.107	-0.192

N = 40

*. Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2 tailed)

In order to examine the extent of overlap between the various aspects of parenting assessed by each of the measures, correlations between subscales were carried out. The inter-correlations between subscales of the CIB are shown in Table 6.

The data in Table 6 indicates substantial overlap between observations of parental negativity and parental supportive presence (the two being inversely related). Limit setting, on the other hand, did not correlate strongly with either of these dimensions, although there was a modest and significant positive association with supportive presence.

Table 6. Inter Correlation's of Coding Interactive Behavior subscales

Subscales	Parent Negativity	Supportive Presence	Limit Setting
Parent Negativity		-0.587**	-0.270
Supportive Presence			0.348*
Limit Setting			

N = 40

*. Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2 tailed)

Table 7. Inter Correlation's of Raising Children subscales

Subscales	Firm control	Lax control	Harsh Control
Firm control			-0.385*
Lax control	0.313*		
Harsh Control		0.044	

N = 40

*. Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2 tailed)

The data in Table 7 shows that there is a modest and significant positive association between firm control and lax control and a modest significant negative association between harsh control and firm control.

Parenting Style and Children's Behavioural Change Following The Birth

This section examines the main hypothesis regarding the link between parenting style and behavioural problems following the birth of a sibling.

Other factors which could have been impacting on children's behaviour change were assessed using correlations with the simple difference score for each syndrome scale of the CBCL (Time 2 – Time 1). Social support, socio-economic status, parental psychopathology, maternal age, child age and gender were tested to examine any effect on behaviour change.

Table 8. Significant correlations between other variables and behavioural change

Variable	Emotionally Reactive	Somatic
Child Gender		0.399*
Child Age		0.388*
Brief Symptom Inventory Total		-0.486
Satisfied with support	-0.491*	

*. Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2 tailed)

Table 8 indicates there were moderate to large correlations between changes in somatic behaviour and three variables: child age, child gender and maternal

psychiatric symptoms. There was also a strong negative correlation between emotional behaviour and satisfaction of maternal social support.

The data indicate that all the subscale means showed a numerical increase from time point one to two. While, aggressive behaviour had the highest mean at time point one (8.41), it also appeared to increase the most at time point two. Table 9 shows that half of the scales demonstrated a statistically significant increase. The subscales showing significant change were: emotionally reactive, anxious/depressed, withdrawn and aggressive. The other subscales did not show significant changes in the firstborn's behaviour from before the birth of the sibling to afterwards.

The main hypothesis, that children from authoritative families would show less behavioural change following the birth of a sibling, was tested by correlating behaviour change with parenting style. No significant correlations were found between parenting styles and child behavioural change. These correlations are shown below in Table 10.

The data in Table 10 indicates that there are no significant correlations between behavioural change and parenting style measures. However, there is a weak non-significant correlation indicating harsh control increases as emotionally reactive behaviour increases. There is also a small non significant negative correlation between limit setting and withdrawn behaviour and supportive presence and aggressive behaviour.

Table 9. ANOVA data on Child Behavior Subscales differences at Time Point 1 and 2

Subscales	Time1		Time 2		F	(df)	P
	M	(SD)	M	(SD)			
Emotionally Reactive	1.43	1.64	1.97	1.59	4.412	(1,28)	0.045*
Anxious/Depressed	1.66	1.61	2.38	1.84	4.963	(1,28)	0.034*
Somatic Complaints	1.17	1.54	1.55	1.70	2.056	(1,28)	0.163
Withdrawn	0.72	1.13	1.38	1.76	9.041	(1,28)	0.006*
Other	7.38	3.67	7.83	5.63	0.332	(1,28)	0.569
Sleep Problems	2.21	3.22	2.55	2.75	0.941	(1,28)	0.340
Attention	2.28	1.79	2.69	2.30	1.527	(1,28)	0.227
Aggressive	8.41	5.00	10.55	6.56	6.755	(1,28)	0.015*

* $p < 0.05$ N = 30

Table 10. Correlation between Child Behavior Subscales and parenting style observer-rated and self-report measures

Subscales	Firm control	Lax control	Harsh Control	Limit Setting	Parent Negativity	Supportive Presence
Emotionally Reactive	-0.203	-0.081	0.309	-0.266	0.045	-0.179
Anxious/Depressed	-0.230	0.059	0.113	-.056	-0.192	0.174
Somatic Complaints	-0.133	0.042	-.080	-0.273	-.189	-.036
Withdrawn	0.168	-0.001	-0.135	-0.298	-0.157	-0.15
Other	-0.027	-0.245	-0.213	-0.326	-0.074	-0.238
Sleep Problems	-0.137	0.261	0.075	-0.004	-0.196	0.245
Attention	-0.034	-0.131	-.043	-0.255	-0.100	-0.255
Aggressive	0.091	-0.145	0.071	-0.235	0.056	-0.261

N = 30

DISCUSSION

The initial aim of the study was to establish whether authoritarian parenting style would be associated with larger increases in problem behaviour in a first-born child following the birth of a sibling. Broadly speaking, given the role of parenting style in the development of behaviour problems and the impact of the birth of a sibling it was expected that children from parents with authoritative parenting style would show fewer behavioural changes. The hypothesis the study aimed to test was not supported and there were few relationships between parenting style and behavioural change. There are a number of possible explanations for this including methodological problems, theoretical issues and possible problems with the measures. Furthermore, there are issues connected to the sample and conceptual issues related to when change occurs.

When considering the few relationships found between behavioural change and parenting style only speculative conclusions can be drawn due to the sample size. There was a trend correlation between harsh control and emotionally reactive behaviour and further trend-level negative correlations between limit setting and withdrawn behaviour and supportive presence and aggressive behaviour. Although these correlations were weak it is conceivable that in a larger sample they may have been significant.

A fundamental methodological issue to be considered in this study concerns the measures. Using both observational and self-report measures, no significant differences were found between parenting style and behavioural changes in a variety

of different behavioural problems as rated by mothers. There are various possible explanations for this, including that the measures of parenting style were not sensitive enough. A further possibility is that one or both of the parenting measures was not sufficiently reliable or valid. However, the Coding Interactive Behavior Scale and the self-report measures have been used extensively and both have demonstrated adequate predictive validity (Feldman Greenbaum Mayes Erlich 1997, Feldman, 2007). There is the possibility that due to a lack of extensive experience in the use of the measure the observational ratings were not coded very well and the reliability was not very good. When considering inter rater-reliability, although eight subscales had very strong correlations two of the subscales had weak correlations. This could have impacted on the overall reliability of the coding. It is possible the correlations were weak due to the criteria of the measure not being as clear or due to the fact they were more difficult behaviours to rate. The self-report measures may also be picking up something else and perhaps looking more at attitudes and less at behaviour. This raises the possibility that the relevant parenting dimension was not adequately captured by either of the measures. It is also important to consider that perhaps longer periods of observation with more stressful circumstances might have revealed more effects.

A further potential difficulty with detecting predictors of behavioural change is the sensitivity of the Child Behavior Checklist. However, it was also notable that significant changes in behaviour were found in aggression, anxiety/depression, emotionally reactive and withdrawn behaviour subscales. Furthermore, parental psychiatric symptoms did prove to be a significant predictor of behavioural change in several domains of child behaviour. Nevertheless, it could be that the CBCL is more

sensitive at detecting change in more overt behaviours but not as good when looking at more subtle changes. A further possibility is that parental ratings are biased and partially reflect changes in the parent's state of mind or circumstances. The association with parent psychiatric symptoms could be interpreted as being consistent with this account.

Another consideration is that the follow up at one month may be too early to detect the influence of parenting on behavioural change. Arguably, as the new sibling gets older there is more potential for conflict, which may place greater demands on parenting. As such, it may be that key behavioural changes do not occur until later. On the other hand studies looking at behaviour change following the birth of a sibling show an early peak, and the results of the current study showed significant increases in some behavioural problems at this relatively early stage. Nevertheless, where the normative peak is does not necessarily indicate the time frame where parenting style will be the most influential. Normative changes may not map onto when individual differences emerge. Clearly, this could be addressed by using repeated assessments after birth to assess changes in behaviour and the changing contribution of parenting developmentally. Key outcome measures were maternally reported and they may be subject to biases because mothers were in their last trimester of pregnancy and possibly pre-occupied with the imminent birth.

Additional limitations are that the study was underpowered, which meant that it only had power to detect quite large effects. The influence of parenting, even within the dimensions measured in this study, cannot therefore be ruled out. Furthermore, the lack of range in the sample creates limitations in a number of areas, particularly in

relation to parenting behaviours. It was a particularly socially homogeneous sample, which is important, as the extremes of the parenting style spectrum were not represented. With a more mixed sample in terms of parenting style and socio-economic status or other indicators of social adversity the results may have been different. The range of the age of the children may also have impacted as children under 18 months were excluded and it is conceivable they would have demonstrated stronger effects. Although, Teti (1989) found that older children were more responsive to the birth of a sibling in terms of mean behavioural change, it may be that parenting influences are more significant in the younger age group. This study found that both child age and gender were significantly positively correlated with somatic behavioural increase, which supports Teti's findings with regard to age. Teti (1989) also found maternal psychiatric symptoms and social support to be confounding factors when examining the first-borns behavioural change following the birth of a sibling. Maternal psychiatric symptoms and social support were measured in the current study and were found to be related to emotionally reactive and somatic behavioural change, again replicating the findings of Teti (1989).

There are a number of limitations of the construct of parenting style that are not discussed in depth in the current literature. One such limitation is with regard to ethnicity. Studies relating to ethnicity do not address convincingly cultural difference and the possible benefit of different cultures adopting more authoritarian styles of parenting. Different communities may have a different understanding of parenting styles and have different community norms compared with western ideals used in current research. Furthermore, parenting style can be a confusing with regard to whether studies are measuring more emotional aspects of parenting style or more

skills based elements including parenting practices. It would be helpful in the future to have a more generic understanding of what parenting style is and exactly what is being measured.

At a more theoretical level it could be that parenting style may not actually play a significant role in how a child responds to the birth of a sibling and that other aspects of parenting are more important. Another possibility is that parenting style itself changes, and because a second measurement of parent was not taken concurrent relationships between parenting and post-birth behavioural problems were missed. There are also factors including temperament, the role of fathers and the role of broader social constructs that could be implicated that the current study was not able to address.

The parental report data concerning behaviour change is consistent with previous studies in that more problems were reported following the birth of a sibling (Dunn et al. 1981, Stewart et al. 1987). In terms of changes in behaviour following the birth there is a non-significant trend in that all behaviours rated increased at the second time point. Withdrawn, anxious/depressed aggressive and emotionally reactive behaviour increased significantly. Dunn and Kendrick (1980) discuss the possibility that changes in interaction patterns between pre-sibling birth and post-sibling birth reflect developmental changes rather than changes that are associated with the birth. This seems unlikely in this case as such marked changes in behaviour would not be expected to occur in a period of less than two months.

The current study thus provides further evidence that the birth of a sibling brings about significant changes in children's emotional and behavioural functioning and

that individual differences in adaptation are predictable from measures related to family functioning, including parental psychiatric symptoms and perceived social support. It seems likely that these social effects are mediated through changes in family interaction. The fact that the study was not able to identify pre-birth parenting variables that could account for this increase suggests that further work is needed in order to better understand the relevant patterns of parenting and family interactions that are implicated in these behavioural changes.

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Paper 3. Critical Appraisal

Introduction

The critical appraisal paper will consider i) methodological and ethical issues related to the empirical paper ii) Possible clinical applications iii) personal reflections and learning experiences and future research. The aim of this paper is to expand on previous issues raised during the thesis and to reflect upon my personal experience of the research process.

Methodological Issues

If I were to carry out this research again there are a number of areas that I would approach differently. The research results did not find a significant difference between parenting style and children's behavioural change following the birth of a sibling. This could be attributed to the project's relatively small sample size; however, there are other possible explanations which were explored in the discussion of the empirical paper. For instance, using different measures to rate parenting style or behavioural change or perhaps waiting until the second born children are older. More behavioural manifestations connected to the sibling's arrival could occur later, which may make parenting interventions come to the fore and become easier to identify. Although there are many speculative reasons for the non-significant result a fundamental consideration would appear to be that the study was perhaps over ambitious and could not be carried out robustly in such a limited time. In order to achieve results that indicate a change a large heterogeneous sample size is required. One of the limitations of the study was the lack of variance in the sample. Accessing more diverse settings would be imperative to get a more representative sample. This could be achieved by offering an incentive and recruiting from settings where

mothers from lower socio-economic status groups attend. The participants approached in Queen Charlotte and Chelsea Hospital ante-natal clinic that declined to participate in the study tended to be mothers from non-white ethnic backgrounds. I had a sense that they were more suspicious of me as a psychologist and were perturbed at the request to go to their homes and film them. I can only speculate from the interactions that they possibly had a culturally different and negative image of psychologists and had perhaps had more negative experience of other services. They wanted to know what would be the benefit to them in participating in the study and I found it difficult to persuade them without any incentive. This is perfectly understandable as filming individuals in their homes and examining their relationship with their child could be perceived as a very intrusive experience. However, I was very much encouraged by the willingness of the mothers who did take part without any incentive, which leads me to believe that, given more time and possible funding, there is scope for this research to be expanded and to produce more robust results using a larger sample size. Indeed, the majority of mothers were very much interested in obtaining feedback and were keen to know the outcome of the study.

A further point to consider is the lack of variance in the mothers' socio-demographic backgrounds. Most of the mothers lived in affluent areas of London and were married with good support systems around them. This possibly contributed to the fact that all had quite similar parenting styles and the lack of variance made it difficult to assess change. The initial plan was to recruit from sure start centres and different areas of London to try and achieve a range of participants but difficulties getting permission to recruit from NHS trusts research and development departments were

encountered and the process became a lengthy one. When permission was eventually granted it was too late for the pre and post measures to be carried out before the deadline.

In summary, there are a number of issues that need to be considered. The results can only be thought about as explorative and no clear assumptions can be made due to the sample size. Difficulties occurred at the recruitment stage as such a specific group (pregnant women with one child already aged between 18 months and three years) were being sought. It was an ambitious project for the time scale and this is perhaps reflected in the sample size as there was a very limited time period in which the mothers needed to be recruited, complete the first assessment, give birth, wait a month and then complete the second questionnaire. For the study to be more robust there needs to be a much larger sample which will give the study more power and therefore perhaps detect a change that may have been missed.

Clinical Applications

Broadly speaking if this research project could be carried out with a large socio-economically and culturally mixed sample the results could prove to be very interesting and useful. Even though the study I carried out had a small homogenous sample, trends were starting to appear associated with parenting style and the behaviour of the first-born child following the birth of a sibling. It is an event that happens in a large number of the population's family life and information and advice is not widely available to parents concerning how best to negotiate this possibly difficult transition. Many of the mothers cited their reason for participating in the

research as being their concern about the lack of material available from midwives and health visitors on how best to prepare an infant for the arrival of a new-born sibling. Identifying important sources of influence on children's adjustment following the birth of a sibling may help determine the extent to which parenting style may be a useful focus of intervention when working with children experiencing difficulties following this transition. If suggestions could be made to parents about parenting behaviour and which strategies seem to produce fewer behavioural problems in children following the birth of a sibling it could be very beneficial. Mothers were keen to know the results of the study and how it could aid their child in the future. Many saw it as an opportunity to help other people in the same position and possibly themselves in the future. They reported feeling anxious and stated they were unsure what to do in order to best prepare their first-born and were worried about their child's reactions. Although the importance of sibling relationships and the transition to sibling-hood has been recognised by researchers and clinicians the information concerning this transition is perhaps not disseminating successfully through to parents. There appears to be a lack of available information for parents regarding how to prepare the first-born for the arrival of a second baby and many mothers indicated how valuable they felt this study to be.

What I have learned/experienced

There are many valuable lessons to be learnt from the experience of writing a thesis. One of the key learning points that I will take forward when carrying out future research is thinking carefully about timing. It became apparent how crucial it is to have a clear understanding of how long different procedures will take. I say this

partly as I reflect on the process of gaining ethical approval. I was very aware that pregnant participants with young children are a particularly vulnerable group. We were over cautious and tried to produce an ideal Central Office Research Ethics Committee (COREC) form that covered every possible area, which unnecessarily delayed the process. After attending the Charing Cross Ethics Committee meeting it became apparent that any concerns the Committee may have had could have been anticipated and promptly addressed. Therefore early submission of the COREC form would have been the advisable.

Furthermore with regard to timing, I have a much more realistic idea of how much can be achieved in a specific timeframe and this will help me when considering audit or research in a clinical setting.

Personal Reflections of the research process

The whole process from the initial seed of an idea and trying to establish whether it would be a valid and fruitful concept for a piece of research to the finished written product has been an invaluable learning process. I have a much richer understanding of my personal capabilities and the areas that were more difficult to manage and those that I managed well. This project, although a fascinating area, was over-ambitious for the time available and perhaps more planning at the initial stages would have prevented later complications. I carried out this project with a fellow trainee which has also taught me a lot about sharing workloads, communication and debating the direction of our research. With hindsight it is clear that good planning is an essential facet of any research and it would have been helpful to project manage

shadowed by clinical work. Audit and research are a key part of the current National Health Service and service funding is often dependent on providing evidence that a service is cost effective and making a positive difference to the people using the service whilst meeting the necessary government targets. I now feel equipped to use the research skills I have developed to become more involved in not only large-scale research projects but also in service level audit and clinical governance.

Future Research

In order for parenting style to be more rigorously tested large scale studies with rigorous observational and self-report measures based on specific parenting style classifications need to be carried out. Directly intervening in parenting style and measuring the resulting impacts on children's functioning would allow a clearer empirical understanding of the effect of parenting style on children's development. It is apparent that there are ethical difficulties with this type of research and the possibility of a detrimental impact to a child occurring would need to be considered carefully. The use of a control group would give a clearer more robust indication of the extent to which parenting style impacts on children's development. There is of course the difficulty of recruiting for such a study to consider and how best to intervene in the delicate process of parenting. The inclusion of other variables, such as temperament or the role of fathers would also be of interest.

APPENDICES

Appendix 1

Ethical Approval Letter



Charing Cross Research Ethics Committee

Miss Zeyana Ramadhan
Trainee Clinical Psychologist
University College London

23 August 2006

Dear Miss Ramadhan

Full title of study: Do parenting and attachment styles prior to the birth of a sibling predict behavioural changes of the first-born child following the birth of a sibling.

REC reference number: 06/Q0411/119

The Research Ethics Committee reviewed the above application at the meeting held on 21 August 2006.

Documents reviewed

The documents reviewed at the meeting were:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Application		20 July 2006
Investigator CV		
Protocol		
Covering Letter		19 July 2006
Letter from Sponsor		07 July 2006
Participant Information Sheet	1.0	06 July 2006
Participant Consent Form	1.0	06 July 2006
Supervisor CV		
Research proposal review form - V.Hamilton		
Research proposal review form -Z.Ramadhan		

Provisional opinion

The Committee would be content to give a favourable ethical opinion of the research, subject to receiving a complete response to the request for further information set out below.

Authority to consider your response and to confirm the Committee's final opinion has been delegated to the Chair of the REC.

Further information or clarification required

The following points were discussed at interview:

- a. The initial contact with potential participants will be made by midwives at antenatal clinics. If the patients agree, the researchers will contact them at a later stage to give further information about the study and obtain consent.
- b. The process will involve one or two researchers making a home visit. The aim is to film a 40 minute interaction between mother and child in an as natural environment as possible. The types of interaction indicators being observed are among others eye contact and responsiveness.
- c. The video tapes will be stored in a locked cabinet and kept for the follow-up period. It was unclear whether the tapes would be destroyed at the end of the study.
- d. Fathers will be excluded from this study because interaction between fathers and their children is not covered in the literature.
- e. Single mothers will not be excluded.
- f. It was confirmed that children between the ages of 18-30 months will be included.

Discussion:

1. The Committee requires that the video tapes be destroyed at the end of the study. It is unacceptable to keep these for further analysis, since the details of the analysis have not been provided.
2. The Committee would like to see copies of the questionnaires to be used in the study.

When submitting your response to the Committee, please send revised documentation where appropriate underlining or otherwise highlighting the changes you have made and giving revised version numbers and dates.

The Committee will confirm the final ethical opinion within a maximum of 60 days from the date of initial receipt of the application, excluding the time taken by you to respond fully to the above points. A response should be submitted by no later than 21 December 2006.

Ethical review of research sites

The Committee agreed that all sites in this study should be exempt from site-specific assessment (SSA). There is no need to complete Part C of the application form or to inform Local Research Ethics Committees (LRECs) about the research. However, all researchers and local research collaborators who intend to participate in this study at NHS sites should notify the R&D Department for the relevant care organisation and seek research governance approval.

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

06/Q0411/119

Please quote this number on all correspondence

Yours sincerely

Chair

Email:

Enclosures: *List of names and professions of members who were present at the meeting and those who submitted written comments.*

Copy to:

UCL Biomedicine Unit

Charing Cross Research Ethics Committee

Attendance at Committee meeting on 21 August 2006

Committee Members:

<i>Name</i>	<i>Profession</i>	<i>Present?</i>	<i>Notes</i>
	Consultant Physician	Yes	
	Scientist	Yes	
	Lay Member	No	
	Research Nurse PhD	Yes	
	Scientist	Yes	
	Consultant Anaesthetist	Yes	
	Hospital Chaplain	Yes	
	Pharmacist	Yes	
	Consultant Paediatrician	No	
	Consultant Physician	Yes	
	Psychiatrist	Yes	
	Lay Member	No	
	Consultant Neuroradiologist	No	

Also in attendance:

<i>Name</i>	<i>Position (or reason for attending)</i>
	Committee Co-ordinator

Appendix 2

Participant Information Form



INVESTIGATION INTO THE EFFECTS OF THE ARRIVAL OF A NEW BABY ON FIRST BORN CHILDREN

FORM VERSION: 1.0 6TH JULY 2006.

INFORMATION SHEET

This information sheet outlines a study that researchers at University College London are carrying out, which you might be able to take part in.

What is the study about?

The birth of a baby is an important event in family life. We are interested in how older siblings respond to the arrival of a new child in the family. We are carrying out this study to help us understand how parents help children adapt to having a new sibling. We are interested in how different styles of parenting might contribute to children's responses to the birth of a child. We are also interested in how different styles of relationship between parent and child might contribute to this as well. Finally, we are interested in hearing about what parents think about how their child will adapt to the new baby and what things parents might be doing to get a child ready for the birth.

Why is this study being conducted?

We hope that this study will provide important information for both parents and professionals working with children and families. In particular, we hope the study will improve our understanding of the kinds of things that might help children adapt to the changes that take place when a new baby is born.

Why am I being asked to take part?

We are approaching all mothers who have a child between 16 months and 3 years old who are pregnant with another child.

What does the study involve?

The study will involve one visit at your home in the last three months of your pregnancy and one telephone call one month after your baby is born. During the visit to your home researchers will video-tape interactions between you and your child as you go about your everyday routines. All video tape information will remain strictly confidential. During this visit you will also be asked to fill out some brief questionnaires and answer some questions about what you think about how your child will adapt to the birth of his/her sibling. This visit will take about an hour and will be organised at a time to suit you. When your new baby is around a month old, we would contact you by telephone to complete a questionnaire to see how your child's behaviour has changed since we last saw you. This telephone call would take about 15 to 20 minutes.

If I want to take part, what do needs to happen?

If you agree to take part, one of the researchers whose details appear below will contact you and arrange to see you at a time that is convenient to you. Alternatively, you may contact the researcher yourself directly (our details are given below).

What if I want to drop out of the study?

If at any time you decide you do not want to take part in the study you are free to do so, and you do not have to give a reason. Leaving the study will not affect your treatment by any service in any way whatsoever.

What happens to the information I provide?

All the information you give us, including videotapes and questionnaires, will be stored anonymously and securely. The information will be treated in the strictest confidence and will not be passed on to anyone outside our research team.

If you are interested in taking part in this study or you have any questions about it please contact:

Zeyana Ramadhan on
Victoria Hamilton on

or email:
or email:

|

|

You do not have to take part in this study if you do not want to. If you decide to take part you may withdraw at any time without having to give a reason.

All proposals for research using human subjects are reviewed by an ethics committee before they can proceed. This proposal was reviewed by the Charing Cross NHS Ethics Committee.

Appendix 3

Participant Consent Form



Centre Number:
Patient Identification Number for this study:

UCLH Project ID number:
Form version: 1.0 6th July 2006.

CONSENT FORM

Title of project: **INVESTIGATION INTO EFFECTS OF THE ARRIVAL OF A NEW BABY ON FIRST BORN CHILDREN**

Name of Principal investigators : Zeyana Ramadhan & Victoria Hamilton

Please initial box

1. I confirm that I have read and understood the information sheet (version 1.0 6th July 2006) for the above study and have had the opportunity to ask questions.

2. I confirm that I have had sufficient time to consider whether or not want to be included in the study

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

4. I understand that sections of any of my medical notes may be looked at by responsible individuals from (company name) or from regulatory authorities where it is relevant to my taking part in research. I give permission for these individuals to have access to my records.

5. I agree for the parent-child interaction session to be video-taped. I understand that the video will be strictly confidential and my identity will not be revealed to other parties.

6. I agree to take part in the above study.

Continued on next page/

Appendix 4

The Raising Children Questionnaire

CHILD ID NUMBER						REL
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

These questions below are about raising children. For each one, please circle the answer that best describes how you feel.

	Definitely No	Mostly No	Mostly Yes	Definitely Yes
1. Do you help your child do his/her chores?	1	2	3	4
2. Do you praise your child when he/she does something you like?	1	2	3	4
3. Do you expect your child to obey the first time you say something?	1	2	3	4
4. Do you give your child a chance to explain before punishing him/her?	1	2	3	4
5. Do you think the most important thing your child must learn is independence?	1	2	3	4
6. Do you give your child lots of hugs and kisses?	1	2	3	4
7. Do you let your child decide what his/her daily schedule will be?	1	2	3	4
8. Do you let your child eat what he/she feels like eating?	1	2	3	4
9. Do you allow your child to express anger?	1	2	3	4
10. Do you think your child is too young to have chores?	1	2	3	4
11. Do you think praising your child will spoil him/her?	1	2	3	4
12. Do you think that respect for authority is the most important thing your child should learn?	1	2	3	4
13. Do you let your child decide when it is time for bed?	1	2	3	4
14. Do you expect your child to do chores at home without any help?	1	2	3	4

		Definitely No	Mostly No	Mostly Yes	Definitely Yes
15.	Do you like your child to join in freely when adults are talking?	1	2	3	4
16.	Do you think spoiling your child would be the worst thing you could do?	1	2	3	4
17.	Do you want your child to question rules that seem unfair or unclear?	1	2	3	4
18.	Do you let your child choose which TV shows to watch?	1	2	3	4
19.	Do you try to show that you understand your child's feelings when you punish him/her for misbehaving?	1	2	3	4
20.	Do you reconsider a rule that really upsets your child?	1	2	3	4
21.	Do you expect your child to be quiet and respectful when adults are around?	1	2	3	4
22.	Do you try to explain the reasons for the rules you make?	1	2	3	4
23.	Do you spank your child for doing something really wrong?	1	2	3	4
24.	Do you expect your child to obey you without any questions asked?	1	2	3	4
25.	Do you think an important thing your child must learn is to respect the rights of others?	1	2	3	4
26.	Do you think it's wrong for a child to shout at a parent?	1	2	3	4
27.	Do you think your child will grow up just fine without much interfering on your part?	1	2	3	4
28.	Do you expect your child to control his/her anger to a certain extent?	1	2	3	4

Appendix 5

Table 2. Complete descriptive data on Coding Interactive Behavior Subscales

Variable	N	M	SD
Forcing-Physical Manipulation	40	1.51	0.75
Overriding-intrusiveness	40	1.73	0.87
Acknowledging	40	4.41	0.84
Imitating	40	2.56	1.34
Elaborating	40	4.07	1.27
Parent Gaze	40	4.09	0.86
Positive Affect	41	4.61	0.80
Parent-Depressed mood	41	1.20	0.51
Parent Negative Affect	41	1.05	0.22
Hostility	41	1.22	0.33
Vocal Appropriateness, clarity	41	4.73	0.59
Parent Anxiety	41	1.27	0.74
Appropriate range of Affect	41	4.61	0.74
Consistency of Style	41	4.83	0.44
Resourcefulness	41	4.56	0.63
On Task Persistence	41	4.56	0.63
Appropriate Structure-Limit Setting	41	4.80	0.71
Praising	41	4.37	1.11
Criticizing	41	1.10	0.37
Affectionate Touch	41	4.49	0.75
Parent Enthusiasm	41	4.56	0.67
Supportive Presence	41	4.73	0.50
Child gaze	41	4.30	0.96
Child Positive Affect	41	4.39	0.80
Child Negative Emotionality, Fussy	41	1.70	0.81
Withdrawal	41	1.07	0.26
Labile Affect	41	1.24	0.58
Child Affect to Parent	41	4.27	0.90
Alert	41	4.85	0.36
Fatigue	41	1.24	0.70
Vocalization/verbal output	41	4.39	0.92
Initiation	41	4.02	0.82
Compliance to Parent	41	3.59	0.84
Reliance on Parent for Help	41	3.66	0.82
On task Persistence	41	4.51	6.52
Avoidance of Parent	41	1.34	0.73
Competent Use of Environment	41	4.05	1.20
Creative-symbolic Play	41	2.29	1.50
Dyadic Reciprocity	41	4.00	1.16
Fluency	41	4.55	0.67
Adaptation-Regulation	41	4.43	0.78
Constriction	41	1.32	0.72
Tension	41	1.15	0.42

Appendix 6

Joint Project Contribution Outline

Joint Project Contribution Outline

We divided all the tasks of the project equally and we were both involved at all levels including: applying for ethical approval, attending the Central Office for Ethical Research Committee (COREC) meeting, meeting with midwives at Queen Charlotte and Chelsea hospital to organise recruitment, recruiting participants from the antenatal clinic, collecting data and carrying out assessments at time point 1 and time point 2. We analysed all our data separately and wrote individual theses.