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STRESS AND COPING IN SIBLINGS OF CHILDREN WITH LEARNING DISABILITIES

by

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Past research investigating the siblings of children with learning disabilities has yielded inconsistent findings. Consequently, the assumption guiding present investigators is that while some children appear to be at risk psychologically, others adapt well and even benefit from the experience. This assumption may be interpreted as supporting the literature on stress and coping in children. Within this framework, variability is expected because not only are children faced with different stressors, they have a variety of resources available to protect them.

A stress and coping framework was therefore adopted in the present study. It aimed to investigate the differential responses to stress of two groups of children; namely those identified as having a positive relationship and those identified as having a negative relationship with their learning disabled sibling. The study also looked at the association between satisfaction with this relationship and measures of psychological adjustment (i.e. depression and anxiety). In addition, the stability of satisfaction with the sibling relationship; the stability of coping strategies employed in response to stress arising as a result of that relationship; and parental insights into this stress was investigated.

The results suggest that the nature of the sibling relationship does have an impact on depression at least. Furthermore, children rated as having a more positive relationship with their sibling were found to appraise and respond differently to stress than children who were rated as having a less positive relationship. Satisfaction with the sibling relationship was found to remain relatively stable over time, and the stability of coping was consistent with that expected for a process measure. Although parents were found to be good judges of the nature of the sibling relationship generally, they had little insight into the specific stressors that their children found most difficult to cope with.

These findings support the need for sibling intervention programmes. Guidance as to how they might be implemented were offered, and implications for service provision more generally were discussed. Recommendations for future research were made, including an abandonment of the framework of assumed pathology that has dominated the field to date. Indeed, although the findings suggest that some children cope better than others, most seem to manage the stress they face very well, and have a great deal of love and affection for their brother or sister with learning disabilities.

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ACKNOWLEDGEMENTS

AUTHOR'S DECLARATION

At no time during the registration for the degree of Doctor of Clinical Psychology has the author been registered for any other University award.

The contents of this bound volume are identical to the volume submitted for examination in temporary binding except for the amendments requested at the examination.

This study was conducted while the author was a Trainee Clinical Psychologist in the South West Region based in Southmead Health Services NHS Trust and the research was conducted in collaboration with Southmead Health Services NHS Trust and Phoenix NHS Trust.

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1.0 <u>INTRODUCTION</u>

A substantial literature exists suggesting that families where there is a child with learning disabilities are exposed to greater stress, and therefore at risk of numerous psychological difficulties, in comparison to families where no such child is present (Crnic, Friedrich & Greenberg, 1983). The nature and intensity of the stresses experienced, however, are often not measured directly. Rather, the existence of stress is usually inferred from indicators such as the presence of psychosomatic disorders, depression and anxiety.

Most studies have concentrated on the mother as main respondent. Using measures such as the Malaise Inventory, the majority have found that mothers of children with learning disabilities score significantly higher than controls (e.g. Quine & Pahl, 1985). Similar findings have been demonstrated regarding the marital relationship, with the parents of children with learning disabilities being found to experience significantly less marital satisfaction than those in families where the child does not have disabilities (e.g. Friedrich & Friedrich, 1981). Gallagher, Beckman and Cross (1983) argue that such findings are understandable given that these families are faced with a unique set of circumstances as they attempt to adapt to the child, at the same time as being subjected to the stresses faced by all new parents.

More recently, however, early research has been accused of adopting a 'pathological' approach, its underlying implication being that the birth of a child with learning disabilities automatically constitutes a major tragedy (Turnball, Patterson, Behr, Murphy, Marquis & Blue Banning, 1993). Indeed, the inconsistent findings of contemporary studies has prompted a review of the work in this field. It is now

acknowledged that, while some families do appear to be overwhelmed by the pressures of having a child with learning disabilities, others seem to manage very well (Regan & Speller, 1989). The research on siblings of children with learning disabilities, although less extensive, appears to be in the process of undergoing a similar transition, as is outlined below.

1.1 Siblings of children with learning disabilities

1.1.1 Historical perspective

Based primarily on clinical observations, there is a long history of concern about the possible negative effects of being brought up in a family where there is a child with learning disabilities. Farber (1959), in a large scale study investigating the impact of a child with learning disabilities on the family, found that a high proportion of siblings showed adverse effects. He developed the term 'role tension' to describe the subjective feelings of frustration, tension or anxiety resulting from the necessity to assume responsibilities for the learning disabled child. He found that siblings had higher role tension scores, as rated by their mothers, when the child with disabilities was highly dependent. Moreover, sisters were found to experience more role tension than brothers. Farber concluded from these findings that siblings, older sisters in particular, are required to assume an overload of responsibilities because of the added demands placed on the family by a child with learning disabilities.

Gath (1974), in her extensive study of sibling reactions to their brother or sister with Down's Syndrome, reached a similar conclusion.

Her study included a control group, and she found a significant increase in 'deviant behaviour', as assessed by parents and teachers, in older sisters. Sisters more than three years older than the child with Down's Syndrome, and from a large family, were identified as most at risk. However, she found no evidence to suggest that the brothers of children with learning disabilities were any more disturbed than the brothers of non-learning disabled children. Gath proposed that this was probably due to older sisters carrying a larger share of the burden of caring for the child with learning disabilities than other siblings.

In a study by Grossman (1972) college-aged brothers and sisters were interviewed retrospectively about their experience of having a sibling with learning disabilities. She found that 45% felt that they had suffered as a result of the experience, reporting feelings of guilt, shame and neglect. Sisters of children with learning disabilities were found to have higher anxiety scores than brothers. Again, Grossman concluded that these findings probably reflected the amount of caregiving involved. However, she also found that a surprising number of brothers and sisters appeared to have benefited in some way. Examples of positive experiences cited by participants included increased understanding, compassion, tolerance and appreciation of their own health and abilities.

Indeed, the absence of any negative effects has been reported as frequently as their presence (Dyson, Edgar & Crnic, 1989), and simultaneous positive and negative effects have been found by several investigators (e.g. Cleaveland & Miller, 1977). Boyce and Barnett (1993) conclude that the findings of research investigating the impact

of a learning disabled sibling vary greatly both across and within studies, and do not necessarily support the clinical view of 'expected impairment' that provided the framework for early research. They go on to propose that, given the variety in methods, variables, measures, ages of siblings, and general quality of the studies such mixed findings are not surprising. Bristol and Gallagher (1986) comment that some researchers have limited their findings by using measures that only allow for negative outcomes. Furthermore, service provision and philosophy with regards the care of children with learning disabilities has changed considerably since these studies were carried out. Bagenholm and Gillberg (1991) conclude that the findings of early research in the field may have little relevance in today's society.

1.1.2 Contemporary studies

More recently attempts have been made to overcome the methodological problems that have confounded research findings in the past. Gath and Gumley (1987) have replicated and extended the study carried out by Gath in 1974. The children participating included 95 siblings of children with Down's Syndrome, and 88 siblings of children with other learning disabilities. A comparison group consisted of 183 children who were siblings of non-learning disabled children, matched on a number of demographic factors. The siblings of the children with learning disabilities and the control group were not found to have a significantly different number of behavioural problems. Contrary to the previous study, sisters did not exhibit any more adjustment problems than other groups of children. Gath and Gumley conclude that their findings demonstrated little evidence of detrimental effects as a result of having a brother or sister with learning disabilities.

A longitudinal study investigating some of the effects of having a child with learning disabilities on family life was reported by Carr (1988). She followed the families of children with Down's Syndrome, along with a matched control group, from the child's birth until they reached the age of 21. The results from the aspect of the study looking at the effects on siblings do not indicate that they suffer a major disadvantage when there is a child with Down's Syndrome in the family. Carr acknowledges that these findings are based primarily on subjective reports from mothers. However, when the children with Down's Syndrome were 11, the mothers completed the Rutter Behaviour Scales. None of the siblings of children with Down's Syndrome reached the clinical cut-off point, whereas three of the comparison siblings did. Carr concludes that there is no evidence to suggest that children demonstrate severe behaviour problems as a result of living with a brother or sister with Down's Syndrome.

Lobato (1990) proposes that these, and other carefully controlled studies, indicate that a child's learning disability is not likely to have a negative effect on his or her sibling's psychological adjustment. However, there are equally methodologically sound studies which suggest the contrary. Gamble and McHale (1989) investigated the school age siblings of children with learning disabilities. The study had a comparison group, and measures of psychological adjustment were included. They found that siblings of children with learning disabilities scored significantly higher on the depression and anxiety scales than did controls. Sisters of children with learning disabilities were reported to have the highest depression scores. Even so, only two children scored below the clinical cut-off point, indicating that although the school-aged siblings of children with learning disabilities

are more likely to be depressed and anxious than their peers, they still fall within the normal range.

As with earlier studies, therefore, the findings have not been consistent. Boyce and Barnett (1993) comment that the American studies (e.g. Gamble and McHale, 1989) have found evidence of adjustment problems, whereas British studies (e.g. Gath and Gumley, 1987) have not. Bagenholm and Gillberg (1991) propose that cross-cultural differences may well exist. In addition, increased service provision has possibly led to less stress for siblings, and may account for some of the differences in research findings. Even so, methodological problems may still be exerting an influence. For example, most of the studies are either retrospective in nature, or based on reports from parents (usually mothers), and so may not actually reflect the experiences of the siblings themselves. Furthermore, many studies focus upon behavioural disorders, excluding assessments of less disruptive (and less obvious) disturbances such as anxiety. Indeed, Gamble and McHale's study (1989), which employed self report measures of depression, anxiety and self-worth, did indicate that siblings of children with learning disabilities are a group 'at risk' psychologically. Boyce and Barnett (1993) conclude that differences may reflect the use of different measures, and/or sampling fluctuations, proposing that these issues need to be addressed by future research.

1.1.3 Mediating variables

Methodological problems apart, one possible explanation for the contradictory findings is that certain factors may act to 'protect' siblings of children with learning disabilities from experiencing

difficulties. Indeed, variables that appear to mediate the effects of having a learning disabled sibling have been identified with relative consistency.

1.1.3.1 Gender

In her frequently cited work investigating the brothers and sisters of children with Down's Syndrome, Gath (1974) found that the 'brunt' of having a disabled child in the family is borne by sisters. She found that the most vulnerable or problematic children (as rated by parents and teachers) were female siblings who also were first born, and more than three years older than the learning disabled child. Gath explains this increased incidence of disturbance by noting that they seemed to carry out more domestic duties than other children of their sex and age. More recent studies have found that, although sisters do appear to have more care-taking responsibilities, brothers also provide care for their learning disabled sibling (Gamble & McHale, 1989, Stoneman, Brody, Davis & Crapps, 1988). This suggests that there has been a decrease in sexually stereotyped role expectations. In Gamble and McHale's study, sisters also reported experiencing more negative interactions with their learning disabled sibling.

1.1.3.2 Age

Studies over the last few years include samples of pre-school, school-aged, adolescent and adult siblings. However, no study compares siblings across ages and so it is not possible to know how similarly or differently siblings of different ages are affected by having a brother or a sister with a learning disability (Boyce & Barnett, 1993). There are indications that the age of a sibling can affect adjustment. For

example, adolescent sisters reported more conflict with their sibling with learning disabilities than did adult sisters (Begun, 1989).

A study by Lavigne and Ryan (1979) compared the adjustment of three to thirteen year old siblings of haematology, cardiology and plastic surgery patients with a comparison group of siblings not coping with a chronic illness. As a group, the siblings of children with chronic illnesses were more likely to experience behavioural problems than the controls, and they were found to be at higher risk for disturbances at particular ages. For example, siblings between the age of three and six years of age had the highest incidence of overall disturbance (as measured by the Louisville Behaviour checklist). Although this study provides little insight into the causes of these differential reactions, the findings suggest that this area merits further investigation in the field of learning disabilities.

1.1.3.3 Sibling constellation factors
Lobato (1990) proposes that of all the static factors, variables such as age-spacing and birth order appear to play the strongest role in sibling adjustment. In general, investigators have found that the children who are more vulnerable to problems are older sisters and younger brothers (e.g. Breslau, 1982). However, these findings are, once again, inconsistent. In some recent studies relative birth order has not been found to influence the outcome measures of self-concept (Dyson and Fewell, 1989) and vulnerability to deviant behaviours (Gath and Gumley, 1987).

Gamble (1986) argues that the problems of younger siblings may be different from, but not necessarily more severe than the problems of

older siblings. She proposes that, because of the disproportionate care that a disabled child receives, younger siblings may show regressive and attention seeking behaviour, having been usurped by the child with learning disabilities from their role as youngest family member. Older siblings, on the other hand, are subject to the stress surrounding the initial diagnosis, as well as the shock and changes that the family must undergo in adapting to having a child with learning disabilities. In addition, as has been identified by several studies, they may then have to assume house hold tasks and caretaking responsibilities.

The number of children in the family may also mediate the impact on adjustment of growing up with a learning disabled child. Studies indicate that children from larger families fare best (e.g. Dyson et al., 1989, Grossman, 1972). Siblings who have at least one able sibling in addition to the child with a learning disability have been judged as having more social competence and fewer behavioural problems (Lobato, 1990). Lobato goes on to suggest a number of reasons why this might be the case. Having another family member to help with the practical aspects of care may reduce the stress and burden of care on all family members. Furthermore, the responsibility for fulfilling parental expectations is distributed across more than one child, and each sibling has a confidante with whom they can share their experiences. It is possible that when a child has another brother or sister with whom to spend time, he or she is less likely to be affected if parental attention is taken up by the learning disabled child.

1.1.3.4 Degree of learning disability

Few studies have investigated any characteristics of the child with learning disabilities, other than the degree of their disability. The functional level of the child appears to influence the sibling relationship in some ways, but again findings are inconsistent. This is possibly due to different definitions and systems of classification. Begun (1989) found that when the child with a disability has a higher functional level, the sibling relationship is warmer and closer, but more competitive. Studies by Stoneman and her colleagues (Stoneman, Brody, Davis & Crapps, 1987, 1988) found there to be less solitary play, greater family interaction and less childcare responsibilities in families where the child has a milder degree of learning disability. However, McHale and Gamble (1989) found no direct connections between the abilities of the child with disabilities and sibling well-being.

1.1.4 Summary

A review of the literature on siblings presents a very mixed picture (Gamble & Woulbourn, 1993). The general assumption that these children are 'at risk' for emotional or behavioural problems is supported to a degree (Gamble, 1986). However, some studies suggest that the siblings of children with learning disabilities do not show evidence of adjustment problems. Indeed, some appear to benefit from their experiences (Lloyd-Bostock, 1976).

One proposed explanation for these inconsistent findings has been the methodological problems of studies to date (Boyce & Barnett, 1993). More recent studies have attempted to overcome some of the methodological weaknesses of earlier ones, and factors that appear to

mediate the effects of having a learning disabled sibling; such as age, birth order and gender, have been identified. Even so, much of the research is contradictory, and there are no clear explanations for the associations observed between these characteristics and the nature of the effects on the non-learning disabled child. The assumption guiding present investigators, therefore, is that it is not having a sibling with a learning disability per se that causes either 'risk' or actual adjustment problems, but that some children do poorly, while others thrive and appear to benefit from the experience (Gamble & McHale, 1989).

Such an assumption may be interpreted as supporting the literature on stress and coping in childhood (Garmezy & Rutter, 1983). This purports that variability in the adjustment of siblings of children with learning disabilities should be expected because not only are they exposed to a different number of stressors, different kinds of stressors and stress of varying intensity, they will have different kinds of personal and environmental resources available to buffer and protect them. It is therefore proposed that, rather than one of assumed pathology, a framework of stress and coping is more appropriate for an investigation of the siblings of learning disabled children. This, it is hoped, will provide some insight into children's differential reactions to growing up with brother or sister with learning disabilities.

1.2 Conceptual framework of stress

Research on stress can be differentiated according to whether the primary focus is on the stressor as a stimuli, on the organism's

response, or on the transaction between the organism and the environment (Lazarus & Folkman, 1984). Research investigating the families of children with learning disabilities have adopted all three approaches, although the third position is probably the most popular (Gamble & Woulbourn, 1993). Before going on to discuss how this framework might be applied to the siblings of children with learning disabilities, there follows a brief outline of how it has been adapted to studies of their families.

1.2.1 Stress and adaptation in families with a learning disabled child

In an attempt to understand the differential response of families to the experience of having a child with learning disabilities, several studies have applied a framework of stress and adaptation. Adapted from Hill's ABCX Model (Hill, 1949), McCubbin and Patterson (1983) have used the Double-ABCX Model of Family Stress as a way of viewing family efforts to adapt to a child's disability over time. In the basic ABCX model, the families response to the crisis -X-, depends on the interaction of the stressor -A- with existing resources -B- , and with the family's perception of the event -C. They noted, however, that families are seldom dealing with a single stressor. Adjusting to a child's learning disability, like most stressors, involves multiple steps, and multiple changes and demands occur simultaneously. Therefore, McCubbin and Patterson found it necessary to 'double' Hill's original model to include components that emerge over time.

This model assumes that not every stressor will cause a family crises. It allows for the possibility that while many stressors may well result in family distress, more appropriate responses are possible if coping resources are sufficient. Sloper, Knussen, Turner and

Cunningham (1991) propose that coping resources include physical resources (e.g. health, energy, stamina), utilitarian resources (e.g. finances, housing), social resources (e.g. social networks and support systems) and psychological resources (e.g. belief systems, problem solving skills, personality). Within this, and other such models (e.g. Nihra, Meyers & Mink, 1980; Mink, Nihra & Meyers, 1983; Crnic, et al., 1983) all elements are assumed to interact with, and influence all other elements. As Byrne and Cunningham (1985) suggest, such an approach appears intuitively correct in trying to understand the complexity of human behaviour and social systems. Families are no longer regarded as passively reacting to stress, but as manipulating their situation, and actively developing coping strategies. However, the unit of analyses in these studies is typically either the family, or marital dyad. Adopting such an evaluation at the level of the individual may also be beneficial (Gamble & Woulbourn, 1993).

1.2.2 Stress and coping framework

Most of what is known about stress and coping at an individual level relates to adults (Muir-Ryan, 1988). Indeed, several frameworks have been used to describe and classify coping efforts in adults (e.g. Moos & Billings, 1982, Folkman & Lazarus, 1984). Folkman and Lazarus propose that stress can be conceptualised as a transaction between the person and the environment. Central to understanding what causes psychological distress in different people are two processes mediating the person-environment relationship; namely cognitive appraisals and coping. Appraisals are the evaluative processes through which a person determines why and how much disruption will ensue. Coping is the process by which the individual manages the demands of the environment that are appraised as being stressful, and include

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attempts to change perceptions of a situation, as well as attempts to change the situation itself. As noted by Folkman and Lazarus, this definition conceptualises coping as a process, and so there is a need to examine what people actually do in certain situations. The implication is that coping is a conscious, effortful response to a stressful situation. This definition also permits coping to include anything a person does or thinks, regardless of how well it works.

Coping efforts have been delineated into those intended to act on the stressor (problem-focused coping) and those intended to regulate emotional states associated with, or resulting from the stressor (emotion management). In addition, these functions of coping may be broadly categorised in terms of their focus of expression. That is, coping strategies can be directed towards the environment (behaviours), or towards the self (cognitions or attitudes). At any point the individual may re-appraise the stressor, but once a situation is appraised as stressful, the individual uses some form of cognitive or behavioural effort to cope. Before reviewing the literature on stress and coping in childhood, the merits of adopting this framework in the investigation of the siblings will be summarised.

1.2.3 Summary

Gamble and Woulbourn (1993) propose that the transactional framework of stress and coping is appropriate when investigating the siblings of children with learning disabilities. Firstly, they suggest, it enables distinctions to be drawn among stressors, personal appraisals, specific coping responses and outcomes, allowing a structure on an otherwise imprecise area of research. To illustrate their point, they cite as an example the common finding in the research that siblings are

frequently expected to act as care-takers for their brother or sister with learning disabilities (e.g. Gath, 1973). In the literature, these care-taking responsibilities have been described as a source of stress, as part of the solution, and as an indication of a child's level of adaptation (Gamble & Woulbourn, 1993). This lack of clarity, they go on to propose, contributes to the difficulty of drawing any conclusions from the research about the impact of a learning disabled child on his or her siblings. A stress and coping framework would impose a clearer structure, so enabling more to be understood from such research.

The second advantage of this approach is that it provides a relativistic view of stress. Rather than seeking connections between stressful events and undesirable consequences, it acknowledges that while some reactions may contribute to adverse consequences under certain circumstances, they may be associated with positive outcomes under other conditions. This framework acknowledges the complexity and multi-dimensional nature of children's experiences with their learning disabled siblings, starting with the assumption that individual differences exist. Finally, the transactional view places a greater emphasis on the role of 'daily hassles' influencing health (DeLongis, Coyne, Dakof, Folkman & Lazarus, 1982; Kanner, Coyne, Schaefer, & Lazarus, 1981). Research findings suggest that in comparison to life events, these daily hassles are superior in predicting psychological and somatic symptoms, in adults at least.

1.3 Stress and coping in children

There is growing evidence that children experience stress, and that their health and adjustment may be affected by it (Dise-Lewis, 1988). Proponents in the field of child care have long recognised the importance of early coping experiences (e.g. Garmezy, 1981). It has been suggested that successful coping in childhood enhances the general flexibility and resiliency of the child, thereby increasing the likelihood of adaptive stress management in the future. Conversely, repeated failures in coping with stress are thought to result in anxiety, possibly predisposing the child to psychological difficulties in later life (Zeitlin, 1980). The investigation of stress and coping in children, therefore, has important implications not only for the development of theory, but for the design of effective intervention programmes (Curry & Russ, 1985).

In comparison with adults, however, comparatively little research has been carried out in the area of stress and coping in children (Spirito, Stark, Grace & Stamoulis, 1991). Although the adult literature provides a framework that may help guide research, Muir-Ryan (1988) argues that the study of any phenomenon in children needs to take into account additional factors; such as the dramatic physiological, psychological and cognitive changes that occur over time. Of the studies of coping in childhood that do exist, many use standard stressors perceived by adults to be stressful for children. However, research by Yamamoto and Felsenthal (1982) indicates that adults' perceptions of potentially stressful experiences in childhood do not correspond with what children actually find to be stressful. There is a need, therefore, to carry out studies specifically designed to take into account the child's eye view.

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1.3.1 Measuring stress and coping in children

Although there is a recognition that the literature on adult stress and coping does not transfer neatly onto the investigation of stress and coping in childhood, there would appear to be a considerable overlap.

1.3.1.1 Hassles versus major life events as sources of stress

Lewis, Siegel and Lewis (1984) suggest that there are stressors in childhood that may not be appreciated as such by adults. Muir-Ryan (1988) noted that, although certain major life events are ranked high in severity of stressfulness for children by both adults and children, children also identify processes that occur over time. This should not come as a surprise given the adult literature. It has demonstrated that persistent or daily stressors may be even more important in adaptation and health than major life events (DeLongis et al., 1982). These daily stressors have been called 'hassles', and are defined as the 'irritating, frustrating, distressing demands that to some extent characterise every transaction with the environment' (Kanner, et al. 1981). Rowlinson and Felner (1988) claim to have found the first direct support in an adolescent sample for the association between daily hassles and adjustment difficulties. Although their results do not imply that negative life events and hassles are totally unrelated, they do suggest that they represent conceptually distinct sources of life stress, each of which can make a unique contribution to an adolescent's level of functioning. Although yet to be proved empirically, this also appears to be the case for children.

1.3.1.2 Identification of stressors

The limited number of studies of stress and coping in children that exist have employed two main methods in the generation of stressors.

The first involves the child generating their own stressful event (e.g. Compas, Malcarne & Fondacaro, 1988; Wertlieb, Weigel & Feldstein, 1987). This approach overcomes the criticism that what an adult identifies as stressful on a child's behalf may not correspond to what a child, or indeed two different children, identify as stressful. However, the disadvantage of this approach is that it is difficult to compare coping responses, or indeed draw any firm conclusions, when the stressors identified by children are very varied. The second approach involves asking children to respond to hypothetical stressors (e.g. Spirito et al., 1991). Although this has the advantage of being standardised, there are disadvantages. For example, the children may not actually find a particular hypothetical situation stressful. This problem can be overcome, at least to some extent, by researching what children typically find stressful before hand. Also, children could be asked to rate the level of stress they would experience in relation to the hypothetical stressor. A second disadvantage of this approach, however, is that the child may have no experience in dealing with the hypothetical stressor, bringing into question the validity of their response to it.

1.3.1.3 Self-report measures

The most commonly employed means of assessing coping in both adults and children is to obtain retrospective self-reports of responses to stressful events, or potential responses to hypothetical events. Although this is by far the most straightforward method, it does have disadvantages. It may, for example, disguise the variability in the coping strategies employed, providing general information on coping styles rather than specific cognitive or behavioural strategies (Compas et al., 1988). Furthermore, it is possible that these reports do not

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reflect the child's (or adult's) actual response at all in a given situation. This is a chronic problem with self-report measures (Curry & Russ, 1985). One alternative is behavioural observation, that is, to set up standard stressors and observe responses to these stressors (Spirito, Stark & Williams, 1988). However, an element of reliance on self report would still exist given the interest in cognitions in this field of research. Alternatively, the reliability of self reports could be improved by obtaining self-reports immediately following the actual occurrence of a stressor, although this might prove difficult to arrange at a practical level. A comparison of self reports by children with parent and/or teacher observations of the child's coping is another way of checking the reliability of self-report measures (Wertlieb et al., 1987).

1.3.1.4 Classifying coping strategies

Several frameworks have been used to describe and classify coping efforts in adults. Based on these frameworks, standardised questionnaires for the assessment of coping strategies have been developed for adults (e.g. Ways of Coping Checklist, Folkman and Lazarus, 1984), facilitating investigations of the ways in which adults cope with stress. Such comprehensive measures of child and adolescent coping have yet to be developed. However, there already exists some promising systems for coding children's coping based on the adult literature.

For example, Wertlieb et al. (1987) have developed a schema for classifying the coping responses of children. Each coping response is coded in terms of its focus, function and mode according to the following definitions:

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a) Focus

Focus is coded as 'Self' when the child's coping behaviour is directed at his or her own actions or subjective distress. When the child's behaviour is directed at things or people in the environment, the focus is coded as 'environment'. 'Other' is coded when the child does nothing to cope but is instead rescued by someone in the environment.

b) Function

'Problem-solving' coping behaviour is problem focused and instrumental. The function of the behaviour is to change the problematic situation either by the child changing his or her own behaviour or action (focus on self) or by changing the damaging or threatening environment (focus on environment). On the other hand, 'Emotion-management' coping behaviour is palliative in nature. The function of this kind of coping is to manage somatic, subjective and affective components of stress related experiences.

c) Mode

The third dimension captured by Wertlieb et al.'s coding schema reflects the mode of the coping response. 'Information Seeking' refers to any behaviour in which the child tries to gain more knowledge about the stress or problematic situation. 'Support Seeking' refers to any behaviour in which the child tries to elicit the involvement or assistance of another person, and includes direct bids for materials, moral support and empathy. 'Direct Action' refers to anything the child does to handle the stressful situation, excluding cognitive or intrapsychic responses. 'Inhibition of Action' is coded as the coping mode where preventing, containing, holding back or otherwise limiting action is described. The final coping mode is 'Intrapsychic' and refers to all the cognitive processes designed to regulate emotion.

Brotman-Band and Weisz (1988) have developed a coding schema by combining the Ways of Coping classification system (Folkman & Lazarus, 1984) with the Primary-Secondary Control model (Weisz, Rothbaum & Blackburn, 1984a,b). The Primary-Secondary control model distinguishes between relatively broad approaches; primary control (coping aimed at influencing objective conditions or events), secondary control (coping aimed at maximising goodness of fit with conditions as they are), and relinquished control (no apparent goal directed behaviour and no apparent effort to enhance rewards or reduce punishment). Brotman-Band and Weisz complemented these broad categories with a more fine grained descriptive set of categories patterned after the ways of coping model. 'Direct problem solving', 'problem focused crying', 'problem focused aggression' and 'problem focused avoidance' are classified as primary control strategies. 'Social/spiritual support', 'emotion focused crying', 'emotion focused aggression', 'cognitive avoidance' and 'pure cognition' are classified as secondary control approaches. Finally, 'doing nothing' is classified under relinquished control.

Curry and Russ (1985) developed their classification system based on an integration of the literature on coping in childhood. They came up with nine functional classifications of cognitive and behavioural coping, namely; information seeking, support seeking, direct efforts to maintain control, reality oriented working through, positive cognitive restructuring, defensive reappraisal, behaviour regulating coping cognitions, emotion regulating coping cognitions and diversionary thinking. Similarly, Spirito, Stark and Williams (1988) developed a brief coping checklist based on ten commonly mentioned coping categories in the literature. Their categories include problem

solving, distraction, social support, social withdrawal, cognitive restructuring, self-criticism, blaming others, emotional regulation, wishful thinking and resignation.

There is considerable overlap in the various classification systems employed by these investigators. Indeed, several authors have commented that although there are differences in terminology, several distinct types of coping processes repeatedly emerge in the literature (Curry & Russ, 1985, Gamble and Woulbourn, 1993). This suggests that although the classification of coping strategies in childhood would benefit from further refinement, a promising framework is beginning to evolve.

1.3.2 Research findings on children's coping

As noted above, the studies investigating stress and coping in childhood have employed a variety of definitions, methodologies and measures. It is therefore difficult to comment conclusively on the outcomes of these studies. However, certain findings merit discussion.

1.3.2.1 Developmental differences in children's coping

Several studies have demonstrated significant differences in coping by age (e.g. Curry & Russ, 1985, Brotman-Band & Weisz, 1988, Spirito et al., 1991). Primarily, findings suggest that older children use a greater number and variety of coping responses, and are more likely to use more cognitive and less behavioural coping strategies than younger children. Reports of emotion management are more prevalent among older children, as are reports of intrapsychic coping (Wertlieb et al, 1987). Curry and Russ (1985) found that older children tend to focus on the positive aspects of a situation, and are less likely to

seek more information. Several investigators speculate that these findings are consistent with the developmental literature, which postulates that cognitive mediational control develops rapidly during the latency years (Jensen, 1971). Furthermore, it is possible that cognitive coping processes are more difficult to put into words, and so this finding might reflect, in part, developmental increments in children's verbal abilities (Brotman-Band & Weisz, 1988).

1.3.2.2 Gender differences in children's coping

Stark, Spirito, Williams & Guevremant (1989) found that the use of coping strategies differed by sex, with female adolescents reporting using social support more frequently than male adolescents. This finding is consistent with some adult studies (e.g. Billings & Moos, 1981), although not all have found this difference. Indeed, few other studies in the literature on children report any differences between the sexes (e.g. Curry & Russ, 1985, Spirito et al. (1991). Spirito and his colleagues conclude that gender differences do not appear to differentiate children's methods of coping with problems.

1.3.2.3 Coping and adaptation

Both the adult and child literature suggests that certain coping strategies are associated with psychological well-being, whereas others are not. For example, depressed adults report more avoidant coping responses than non-depressed controls, and adults who use more avoidant coping strategies are at a greater risk for more severe depression (Billings & Moos, 1984). Ebata and Moos (1991) found that depressed and conduct disordered adolescents used more cognitive avoidance and emotional discharge than controls, and depressed adolescents also used more resigned acceptance. They also found that

greater use of positive reappraisal, guidance/support, problem solving and alternative rewards were related to higher levels of well-being. Compas et al. (1988) found that, in general, adolescents who used more problem focused strategies to cope with interpersonal stressors had fewer emotional and behavioural problems than those who used more emotion focused strategies, again reflecting findings in the adult literature.

Although the findings suggest that greater reliance on avoidance coping is related to poorer adjustment, both approach and avoidance coping may be effective in particular situations, with certain stressors, or at specific stages in the coping process (Compas, 1987). Furthermore, avoidant, emotion-focused strategies often considered maladaptive in adults may work well for children. Children are more likely to find themselves up against situations over which they have little or no control, and where cognitive avoidance may be the only viable option open to them. Folkman and Lazarus (1984) argue strongly for a definition of coping independent of outcome, referring to coping as 'efforts to manage demands regardless of the success of those efforts.' This definition, it is argued, allows for the fact that a response considered to be maladaptive under certain conditions, may well be perfectly adaptive given a different set of circumstances. Effective coping, therefore, is more likely to be characterised by flexibility and change than the routine application of a particular strategy (Compas, 1987).

1.3.2.4 Stability of children's coping

Lazarus and Folkman (1984) conceptualise coping as a process measure, and it is therefore assumed to have only limited stability

within individuals over time. This has not been investigated systematically in children, other than to establish the reliability of brief coping checklists. For example, Spirito et al. (1991) examined the reliability of the Kidscope, a brief checklist designed to assess cognitive and behavioural coping strategies in children aged between 12 and 14. The children were asked a second time how they coped with the problem they had described one or two weeks earlier. It was concluded that the percentage of subjects who endorsed the same coping strategy on re-testing was reasonably high for a process measure, and as would be expected, was higher over the one week rather than the two week re-test period. Compas (1987) calls for more prospective longitudinal studies to clarify the ways in which coping strategies change or remain constant over time.

1.2.3.5 Summary

Although investigations into stress and coping in childhood are at an early stage in development, a framework for carrying out research in this field is beginning to emerge. Studies suggest that children as young as six can adequately describe their own efforts to cope (Brotman-Band & Weisz, 1988). Furthermore, coping is not confined to extraordinary stressor events, with evidence of children and adolescents coping with every day stressors (Wertlieb et al, 1987). In addition, these coping studies reveal that not only do children identify a rich variety of responses, but that individual children will use several different forms of coping (Curry & Russ, 1985). Thus there is support for Murphy's contention (1962) that children tend to take an active approach to the obstacles they face in their lives, drawing on a variety of coping resources.

A variety of methods have been employed to assess and measure coping responses in children (e.g. retrospective self-reports, responses to hypothetical stressors etc.). Gamble (1986) notes that there are at least three options for assessing coping responses. Firstly, the participant can be asked to talk or write about his/her coping strategies in a free response mode, with a standardised system then used to classify the strategies. Secondly, the participant can presented with a set of standardised alternatives representing a range of coping response categories, and then asked to choose those that he or she employs. Thirdly, the participant can be observed when he or she confronts a stressful event. There are advantages and disadvantages associated with each method.

In an attempt to overcome the disadvantages of opting for a single method, the present study employed several. Children were asked to complete a standardised checklist in response to a self-generated problem. They were also asked what they would do, think and feel in response to six hypothetical scenarios. These responses were coded according to a standardised coding system. In addition, their parents were asked to complete a questionnaire based on how they thought their child would respond. The procedure was repeated after a period of four months to examine the stability of coping responses in children.

1.4 Stress and coping in sibling relationships

Only one published study could be identified which specifically investigated stress and coping in siblings of children with learning

disabilities. Before describing this study, the identification of stressors in the sibling relationship will be discussed.

1.4.1 Identification of stressors in the sibling relationship

Rivalry, competition, individuation and caregiving are terms often used to describe sibling relationships (Gamble & Woulbourn, 1993). Indeed, most siblings describe jealousy and major conflicts that they can still remember even as adults. These are qualities of all sibling relationships that can be described as stressful. Gamble and McHale (1989) argue that these stressors may not be sufficiently intense so as to engender significant stress, or set the stage for adjustment difficulties. However, they propose that when the sibling has a learning disability, the typical stress experienced in the sibling relationship is intensified, and additional stressors are experienced.

Gamble and Woulbourn (1993) speculate about the potential problems associated with interactions between siblings and their learning disabled brothers and sisters. They propose that these fall into three main categories; 'meeting affectional needs', 'provision of direct services', and 'developing an identity'. 'Meeting affectional needs', they propose, can prove to be stressful when certain emotions may not be expressed due to the fact that the sibling does not understand, or cannot reciprocate the expression, or reciprocates inappropriately. 'Provision of direct services' refers to the possibility that the non-learning disabled child may find him or herself assuming a large burden of care and responsibility. 'Developing an identity' refers to the importance placed by the non-disabled sibling on developing an identity that is separate from that of his or her brother or sister with learning disabilities.

Gamble (1986) identified seven stressor events confronted by siblings in general, as well as those specific to siblings of children with learning disabilities. In her study children with disabled and non-disabled siblings were interviewed by telephone, and asked to describe things that happened during the day that 'bothered them, made them worried or mad, or caused a problem for them'. The children reported 195 stressors in total, and the following inventory was derived from these reports:

Stressor 1: sibling gets into identified child's room and takes things without permission.

Stressor 2: sibling teases, bugs, and makes fun of identified child or puts identified child down.

Stressor 3: sibling has bad habits, acts strange, or does embarrassing things.

Stressor 4: identified child has to baby-sit, clean up after or help sibling when he/she doesn't really want to.

Stressor 5: sibling hits, kicks, shoves or beats identified child up.

Stressor 6: sibling gets hurt or sick.

Stressor 7: sibling gets upset with identified child for no reason.

These stressor events were employed in the study by Gamble and McHale (1989) outlined below, and have been adapted for use in the current study.

1.4.2 An investigation of stress and coping in sibling relationships

Gamble and McHale (1989) compared stress and coping in children with disabled and non-disabled siblings. They interviewed 62 children aged between seven and 14 years. Half had a younger sibling with learning disabilities, and half had a non-learning disabled sibling. The two

groups were matched as closely as possible on age, age spacing between the two siblings, and family socio-economic status. The families were visited in their homes, and information was gathered about the family as a whole, and about the individual functioning of the disabled sibling.

The older sibling completed instruments reflecting psychological adjustment, measures of his or her perceptions of the sibling relationship, and a stress and coping inventory. The stress and coping inventory comprised of three scales. The first scale measured the frequency with which the children experienced the seven stressor events identified by Gamble (1986). The second scale required the children to appraise each stressor in terms of the amount of affect they experienced in association with it. Finally the children were asked what they usually did or thought in response to these events.

The results suggest that children with and without learning disabled siblings experience stressful interactions involving their sibling that are relatively similar in kind and frequency. Comparisons of the children's affective reactions to these events revealed that children with learning disabled siblings reported feeling angry or mad more often when their sibling was hurt or sick. In contrast, there was a trend for children with non-disabled siblings to report that they became angry more often when their siblings were physically aggressive towards them. Children with disabled and non-disabled siblings reported responding in different ways to these events. Specifically, there was a trend for children with disabled siblings to report using coping responses characterised as 'other-directed cognitions' more frequently. This finding corresponds with Miller's

(1974) results indicating that children with disabled siblings are less likely to express negative affect or behaviour toward their siblings in a direct way. In addition, 'self-directed cognitions' were positively related to the adjustment and relationship measures, where as 'other-directed cognitions' were negatively related to these measures.

1.4.3 Summary

Several investigators have begun to identify potential stressors arising within the sibling relationship, regardless of whether or not one of the siblings has learning disabilities. Furthermore, Gamble and McHale (1989) conclude that the methodology they employed was successful in identifying coping responses to stress arising in sibling interactions. However, they acknowledge that their study represents a starting point, and that the conclusions that can be drawn from it are limited. Indeed, they make several recommendations for future research, and some have been incorporated into the current study.

For example, they propose a need to expand the range of stressors to include problems arising outside the home, for instance, being teased by one's peers for having a learning disabled brother or sister. A second recommendation is to expand data collection to include the assessment of positive or challenging experiences. Gamble and Woulbourn (1993) make a further suggestion that children identified as being generally well-adjusted should be compared with children who are experiencing more adjustment problems, to determine whether they employ different coping strategies. Indeed, this would take researchers in the field a step nearer to understanding why some siblings of children with learning disabilities struggle, while others manage very well.

1.5 Rationale

In general the literature on the siblings of children with learning disabilities has identified them as a group 'at risk' psychologically. However, the research has yielded inconsistent, and at times contradictory findings. Some children appear to adapt well, and indeed the experience of having a sibling with learning disabilities can be wholly positive. However, for others this is not the case, with some investigators arguing that effects can include depression, increased anxiety, low self-esteem and behavioural problems (e.g. Farber & Jenne, 1963, Grossman, 1972, Gamble & McHale, 1989). Attempts have been made to explain these inconsistencies in terms of methodological problems and/or mediating variables such as age spacing and gender. Although both may be contributing factors, they do not account for all the variability in results.

More recently the inconsistent findings have been interpreted as supporting the literature on stress and coping in childhood (Garmezy & Rutter, 1983), which anticipates variability in children's responses. It is proposed that an analysis of coping responses might provide some insight into children's differential reactions to growing up with a learning disabled sibling. One study has attempted to do this by looking at the ways in which older siblings of children with and without learning disabilities cope with stress in the sibling relationship (Gamble & McHale, 1989). Differences were found in coping behaviours, and the stress and coping measures were powerful in their ability to predict sibling relationship indices, that is, the extent to which the relationship was viewed positively or negatively by the non-learning disabled sibling. Although limited, the findings of the above study suggest that this area merits further investigation.

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For example, it might prove useful to differentiate between those children who have a positive relationship with their learning disabled sibling, and those children who have a negative relationship. Investigating the coping strategies employed by both groups may provide some insight into why some children manage well, while others struggle. Such an investigation could incorporate some additional questions of research interest. For example, the stability of coping in children over time could be tested. In addition, the study offers the opportunity to investigate the insight parents have into the things their children find most difficult about having a brother or sister with learning disabilities. These issues have implications not only in terms of the development of theoretical frameworks, but also for the design of effective prevention and intervention programmes for those siblings who do experience difficulties.

1.6 Aims of study

This study attempted to investigate whether children identified as having a positive relationship, and children identified as having a negative relationship with their learning disabled sibling, differed in the coping strategies they employed to deal with stressors arising as a result of that relationship. The general aim of the study, therefore, was to inform intervention programmes for siblings as to the benefits of teaching specific coping strategies.

More specifically, the aims of the study were:

1) to categorise children into two groups according to whether their relationship with their learning disabled sibling is positive or negative, as rated by their parents.

2) to investigate whether there is an association between the child's satisfaction with their sibling relationship, and the parent's rating of this relationship.

3) to investigate whether there is an association between satisfaction with the sibling relationship and measures of psychological adjustment (i.e. anxiety and depression).

4) to investigate the appraisals and coping strategies employed by the two groups of children in response to self-generated stressors and standardised scenarios.

5) to investigate the stability of the child's satisfaction with the sibling relationship over time.

6) to investigate the stability of the coping strategies children employ in response to stressors arising within the sibling relationship over time and

7) to investigate the insight parents have into the stress experienced by siblings as a result of having a sibling with learning disabilities.

1.7 Hypotheses

1. Children's satisfaction with the sibling relationship will be positively correlated with their parents perception of this relationship.

2. Children's satisfaction with the sibling relationship will be negatively correlated with measures of psychological adjustment (i.e. scores on anxiety and depression scales).

3. The appraisals, coping strategies and evaluation of responses to stressors will be different according to whether the sibling relationship is positive or negative.

4. Satisfaction with the sibling relationship is stable, and will therefore remain relatively constant after a period of four months.

5. The coping strategies employed by children in response to stressful events represent a process measure, and therefore have only limited stability.

6. Parents have limited insight into the specific stressors relating to the sibling relationship.

2.0 METHOD

2.1 Design

The study employed an extreme groups design, the independent variable being the parents perception of their child's relationship with their learning disabled sibling (either positive or negative). The dependent variables were the child's satisfaction with the sibling relationship, measures of anxiety and depression, and the coping strategies employed by these children. The study was longitudinal in that the interviews were repeated after a period of four months, with a view to establishing the stability of some of the measures.

2.2 Participants

Parents of 32 children aged between nine and 14 years, with a younger brother or sister with learning disabilities, completed and returned the Sibling Inventory of Behaviour (Schaefer & Edgerton, 1979). The ten children whose parents gave them the highest scores on this measure were assigned to the 'positive relationship' group, and the 10 whose parents scored them lowest on this measure were assigned to the 'negative relationship' group. Only these two groups of children went on to participate in the main study.

An unrelated t test indicated that there were significant differences between the mean scores on the Sibling Inventory of Behaviour for the two groups (t = 13.19, d.f. = 18, p < 0.001).

The groups were matched on a number of demographic factors. In both groups there were six females, and four males. There were no significant differences between the mean age of the children in the

two groups, (t = -.38, d.f. = 18, NS, p > .05), nor the mean age of the sibling with learning disabilities (t = -.19, d.f. = 18, NS, p > 0.05). Similarly, there were no significant differences between the mean number of additional siblings by group (t = .47, d.f. = 18, p > 0.05). In both groups eight of the children came from two-parent families, and two of the children came from single-parent families.

2.3 Measures

2.3.1 Sibling Inventory of Behaviour

The Sibling Inventory of Behaviour (SIB) was developed by Schaefer and Edgerton (1979) for use in a study of families of learning disabled and non-learning disabled children. It was designed to be completed by parents, and the wording of the items is appropriate for older sibling behaviour towards a younger child, whether or not the child has learning disabilities.

The SIB consists of 28 items, divided into eight sub-scales, namely Empathy and Concern, Avoiding, Leadership and Involvement, Hurting, Kindness, Anger, Acceptance and Embarrassment. Each question is rated on a 5-point Likert scale where 1 indicates that the behaviour never occurs, and 5 indicates that the behaviour always occurs. As some of the behaviours are positive (e.g. shows or tells him/her interesting things) and some of the behaviours are negative (e.g. is embarrassed to be with him/her in public), the questionnaires have to be re-coded for the purpose of analysis. In addition to a total score (range 28 to 140), a score for each sub-scale can be calculated.

In a study of 52 families, inter-item reliability for the SIB was satisfactory. Alpha values ranged from .64 to .89, with a median of

.78, indicating that items within each scale are correlated and measure similar concepts. Mothers and fathers were found to agree on most behaviours. Inter-rater correlation's ranged from .33 to .80 with a median of .64.

Indeed, Schaefer and Edgerton (1981) conclude that the SIB has highly acceptable inter-item and inter-rater reliabilities. They propose that its validity is supported by correlations with other variables, (e.g. 'considerateness' as rated by teachers). In their relatively small study, the instrument was found to be easy to use by literate parents. No test-retest reliability coefficients for the scale are available.

The SIB was chosen for this study primarily because no other measure which provides a rating of the sibling relationship could be found. A reliability check for this measure was built into the study by means of correlating it with the Satisfaction with sibling relationship scale (2.3.2.1) (refer to 3.1.1 for analyses). As the scale is American, it was anglicised for the purpose of this study. The adapted version (Appendix I) was piloted on four parents with children aged between 9 and 14 years who have a younger sibling (non-learning disabled). It was found to have face validity, and the instructions were readily understood.

2.3.2 Semi-structured interview

The semi-structured interview (Appendix II) is made up of four sections; 1) sibling satisfaction scale, 2) advantages and disadvantages of learning disabled sibling, 3) Kidscope, and 4) sibling stress and coping inventory.

2.3.2.1 Sibling satisfaction scale

The children were asked to evaluate their satisfaction with their relationship with their learning disabled sibling across six interaction domains. Specifically, they were asked to rate (on a 5-point Likert scale ranging where 1 = very unhappy to 5 = very happy) how they felt during the last two months about; a) the amount of time they spent with their sibling, b) the amount of time they spent looking after their sibling, c) how they and their sibling got along, d) how their parents treated them compared with their sibling, e) how much attention their parents gave them compared with their sibling, and f) how happy they were overall about being the brother or sister of their sibling.

This scale was adapted from a study by Gamble and McHale (1989), and is designed to provide an overall sibling relationship satisfaction rating, ranging from 5 (very unhappy) to 30 (very happy). The Likert scale was randomly presented in reverse format, so as to control for order effects. A validity check for this scale was built into the study by correlating it with the SIB (2.3.1), an independent measure of the sibling relationship as measured by the parent (refer to 3.1.1 for analyses).

2.3.2.2 Advantages and disadvantages of learning disabled sibling

Firstly, the children were asked to think of some good things about having a brother or sister with learning disabilities. They were encouraged to think of three things, and were told that it might be easier to think of examples that had happened over the last couple of months. This item was included early on in the interview because, in addition to providing useful information, it served to develop rapport

with the child before going on to ask more difficult questions relating to the negative aspects of the sibling relationship.

The children were then asked to think of some of the hard things about having a brother or sister with learning disabilities. They were told these could be things that upset them, made them worried or angry, or that caused a problem for them. Again, they were encouraged to think of three examples, and told that it might be easier to think of things that had happened over the last couple of months. Standard prompts were used when the children found this question difficult to answer.

2.3.2.3 Kidscope

The Kidscope (younger version) was developed by Spirito, Stark & Williams (1988) to provide a brief, clinically useful checklist to screen coping in children. The fifteen items are broken down into ten general coping strategies, namely; Distraction (items 1 and 2), Social Withdrawal (items 3 and 4), Cognitive Restructuring (item 5), Self-criticism (item 6), Blaming Others (item 7), Problem Solving (items 8 and 9), Emotional Expression (items 10 and 11), Wishful Thinking (items 12 and 13), Social Support (item 14), and Resignation (item 15).

The Frequency Scale has two responses, ('yes' = 1, 'no' = 2), indicating whether or not a particular coping strategy has been employed. If participants state on the Frequency Scale that they did use a strategy, they go on to rate on the Efficacy Scale how much this particular strategy helped. There are three responses; 'Not at all' = 0, 'A little' =1 and 'A lot' = 2. If the child uses either item in a

category, then the child is rated as having used that coping strategy. If two items in a category are chosen, the highest efficacy rating selected by the child is scored.

Construct validity has been demonstrated by moderate to high correlations of the Kidscope items with other commonly used coping scales (Stark, Spirito, Williams & Guevremant, 1989). Moderate test re-test correlation coefficients (.41 to .83) have been reported for the Kidscope for short periods of time ranging from three days to two weeks. As Spirito, Stark, Grace & Stamoulis (1991) comment, this is reasonably high for a process measure such as coping that assumes only limited stability within individuals over time.

The Kidscope can be used with either standard or self-generated problems. In this study, the latter approach was adopted. Children were asked to think about the three disadvantages of having a sibling with learning disabilities they had just generated, and to say which of the three they found the hardest to cope with, or the most stressful. The child was then asked to think about a specific example of this disadvantage, and to rate the amount of affect associated with it. Specifically, they were asked to rate on a 5-point Likert scale (ranging from Not at all to Very much) how nervous or worried, sad or upset, or angry the situation made them feel. They were then asked to complete the Kidscope scale with respect to this specific disadvantage.

Although the younger version of the Kidscope is designed for use with children between the ages of seven and 12, only this version was employed in the study. This was primarily to ensure that the

interviews were as standardised as possible, given the small number of participants. Again, because it is an American scale, it was anglicised for the purpose of this study (Appendix II). In an unpublished instruction manual for the Kidscope, Spirito (1989) points out that the scale is designed to be a brief screening tool. He suggests that for those interested in an in-depth examination of coping strategies for a research project, it would be necessary to use interview measures in addition, in order to fully understand coping strategy use.

2.3.2.4 Sibling stress and coping inventory

This measure was adapted from a study by Gamble and McHale (1989), and involves the presentation of six categories of events identified as potentially stressful for the siblings of children with learning disabilities. These events are; a) their learning disabled sibling taking possessions without permission, b) their learning disabled sibling displaying annoying behaviours, c) their learning disabled sibling displaying embarrassing behaviours in public, or in front of friends, d) having to baby sit for or clean up after their learning disabled sibling, e) their learning disabled sibling hitting, kicking or shoving really hard, and f) their learning disabled sibling getting ill or hurting themselves. Each category was presented one at a time, and the child was asked whether or not this was something that had ever happened to them. If they answered 'yes', they were asked to describe the most recent time. All the children were then presented with a specific scenario depicting the category event (refer to Appendix II for details). They were asked to answer the following questions as though the situation had just happened to them.

Firstly, they were asked to appraise how much they could do about the situation on a 3-point scale ranging from 'Do a lot about' to 'Do almost nothing about'. Secondly, they were asked to rate the frequency of occurrence of each event on a 3-point scale ranging from 'A lot' to 'Hardly ever'. Thirdly, the children were asked to rate how much of a problem it would be, again on a 3-point scale ranging from 'A big problem' to 3 'A little problem'. Finally the children were then asked to describe their likely behaviours, cognitions and emotions in response to this situation, and in each case, how helpful these responses would be. The presentation of this final part was varied at random, in order to control for order effects (e.g. 'what would you do? think? feel?' for the first scenario might be followed by 'what would you feel? do? think?' for the second scenario etc.). The children's responses to each question were copied down verbatim.

2.3.3 Anxiety and Depression Scales

The children were then asked to complete two brief questionnaires that related to them, and that had nothing to do with their sibling with learning disabilities. They were told to read the instructions carefully, and for the younger children additional help was given if necessary.

2.3.3.1 State-Trait Anxiety Inventory

Trait anxiety reflects anxiety proneness, that is, individual differences in the probability that anxiety will be manifested in situations involving various degrees of stress. Trait anxiety was assessed by means of the trait form of the State-Trait Anxiety Inventory for Children (STAIC) (Spielberger, Edwards, Lushene & Platzek, 1973) (Appendix II). The A-Trait scale consists of 20

statements, and participants respond by indicating if each statement is 'Hardly ever', 'Sometimes', or 'Often' true of how they usually feel. High scorers are more likely to perceive a wide range of situations as threatening.

The test-retest correlations for the A-Trait scale are only moderate. Spielberger suggests that this probably reflects both a limitation in the psychometric properties of the scale and the instability of personality structure in children. However, he proposes that, given the transitory nature of anxiety states, measures of internal consistency provide a more meaningful index of reliability than test-retest correlations. For the A-Trait scale, the alpha coefficients were .78 for males and .81 for females. Evidence of concurrent validity is also good, demonstrating correlations of .75 with the Children's Manifest Anxiety Scale (Castaneda, McCandless & Palermo, 1956) and .63 with the General Anxiety Scale for Children (Sarason, Davidson & Lighthall, 1960).

The scale was chosen for this study because it is brief, easy to administer, and is a standard anxiety scale used in research with children. Although it was designed for use with children aged between nine and twelve years, it was administered to all the participants in this study. No anxiety scale could be found which was designed specifically for children aged between nine and 14 years and, given the small number of participants in the study, a standardised procedure was deemed necessary. It was also felt that this particular scale retained its face validity when used with older children.

2.3.3.2 Depression scale

The depression scale employed in this study is a self-report questionnaire developed by Birleson (1981) (Appendix II), and designed as a screening instrument for populations thought to be at risk for depressive disorder. It consists of 18 items and requires the child to indicate the frequency with which they have experienced each over the previous week, the frequency scale consisting of 'Most of the time', 'Sometimes' or 'Never'. Included are measures of mood, physiological and somatic complaints, and cognitive aspects of depression.

Although Birleson comments that the scale requires further validation, preliminary investigations demonstrated it to have satisfactory stability and high internal consistency. The test-retest reliability of the scale is .80, showing a highly satisfactory degree of stability. The individual items have correlations of between 0.65 and 0.95. Internal consistency, estimated by a split half reliability coefficient, was found to be 0.86.

This particular scale was chosen for the study for a variety of reasons. Firstly, it was designed for use with children aged between seven and 13 years of age, and so fell short of the target population by just one year. Secondly, it was felt to be a very non-threatening measure, particularly important because the children in this study did not necessarily represent a clinical population. Thirdly, it was brief, clear, and easy to administer.

2.3.4 Additional information

To conclude the interview the children were asked to rate on a 5-point scale ranging from 'Very easy' to 'Very hard' what it was like having to answer all the questions they had just been asked. They were then asked if they thought talking to other children who have brothers or sisters with learning disabilities was 'A bad idea?', 'An okay idea?' or 'A good idea?', and to give reasons for their response. A scripted 'wind down' was included, to be amended according to the needs of the child.

2.3.5 Parent's questionnaire

Parents were asked to list the three things they thought their child found hardest about having a sibling learning disabilities. Of the three examples generated, they were asked to identify the one that they believed caused the most problems, or was the most stressful for their child. They were then requested to complete the Kidscope as they thought their child might respond to this particular situation (refer to Appendix III).

2.3.6 Repeat interview

A repeat interview was conducted in order to determine the stability of some of the measures. It included the Sibling satisfaction scale (2.3.2.1), the Kidscope (2.3.2.3), and three scenarios from the Sibling stress and coping inventory (2.3.2.4).

2.3.7 Piloting measures

All measures were piloted on five children aged between nine and 14, who have a younger brother or sister. The children were questioned as to the clarity of questions, the relevance of items, and their

overall response to the semi-structured interview. Some minor amendments were made as a result. Unfortunately, due to difficulties in recruiting subjects for the main study, the semi-structured interview was not piloted on children who have siblings with learning disabilities.

2.4 Procedure

2.4.1 Recruiting participants

In the first instance the support of the voluntary agencies, (e.g. Mencap, Supportive Parents for Children with Special Needs), the Special Schools in the Avon area, and Phoenix NHS Trust were enlisted. The viability and utility of a project investigating the siblings of children with learning disabilities was discussed with professionals, volunteers, and families with personal experience of the issues involved.

In light of these discussions, and a review of the relevant literature, an outline project proposal was drawn up and submitted to the Ethics Committees of both Phoenix NHS Trust and Southmead NHS Trust. Following the clarification of a few minor points, approval was obtained from both.

Contact with families was made via the child with learning disabilities. A covering letter explaining the study, along with an adapted version of the Sibling Inventory of Behaviour (Appendix I) was forwarded to families via the voluntary agencies, Special schools and staff at Phoenix NHS Trust. Some basic demographic information such as the age of child identified for the project, the age of the child with learning disabilities, and family constellation was also requested.

Considerable thought was given to the covering letter to ensure that, on the one hand, it conveyed all the information necessary to explain the study and the requirements of participants, but on other hand, was brief and encouraged a response from as wide a sample as possible. Attention was brought to the fact that only some of the respondents would be required to participate more fully in the study; that the children would be unlikely to benefit directly from the study; and that the interviews would be repeated after a period of four months. Parents were asked to check with their children that they would be willing to be interviewed, and to mention that, in some cases, the interviews would be taped. Stamped addressed envelopes were provided, along with a contact address and telephone number if further information was required.

Over one hundred letters and questionnaires were distributed between the months of June and August, 1994. Thirty-three were returned, constituting a response rate of approximately 33%. However, many of the questionnaires were sent to families where the age of the siblings were not known, and so it is not possible to tell whether response rates were low because the families did not wish to participate in the study, or because the siblings in the targeted families did not fall within the age range (i.e. between 9 and 14 years), or were younger than their sibling with learning disabilities. In addition, it is highly likely that the same families were targeted by the various agencies (i.e. Special School, Mencap, and Phoenix NHS Trust). Of the 33 respondents, all but one of the children fell within the criteria for inclusion in the study, suggesting that families did indeed pay attention to this when returning the questionnaires.

2.4.2 Semi-structured interview - phase one

In order that the interviews could be conducted within a double-blind format, each of the returned questionnaires was numbered, and the top identification sheet removed. On the basis of their scores on the Sibling Inventory of Behaviour, ten of the numbered questionnaires were assigned to the 'positive relationship' group, and ten to the 'negative relationship' group. The original identification numbers were retained, and so it was not possible to tell which child belonged to which group.

The parents of the twenty identified children were contacted and asked if they were still willing for their child to participate in the study. A mutually convenient date and time was arranged for the interview, and a letter confirming these arrangements was sent to the child. Included in this letter was a request for the child to arrange somewhere quiet and private where the interview could be conducted. All twenty interviews were arranged within a period of a fortnight, the majority taking place during the half-term holiday between the 24th and 28th of October, 1994.

On arrival at the arranged time, the child's willingness to participate in the study was confirmed. As a general rule the introduction to the study, as outlined in the Semi-structured interview (Appendix II) was given with the parent present (usually the mother). Both the child and parent were requested to sign a consent form stating their willingness to participate in the study (Appendix II). In ten randomly assigned cases the children were also asked if they were willing for the interview to be taped. All the children agreed to be interviewed without their parents present.

The parents were asked to complete the Parent's Questionnaire (Appendix III), either while their child was being interviewed, or at a later date if this was not possible. If the parent was not present, as was the case with some of the older children, a consent form and Parents Questionnaire was left, along with a stamped addressed envelope in which they could be forwarded.

The semi-structured interview was then administered, along with the anxiety and depression scales. This procedure lasted between 45 minutes and 75 minutes. At the end of the interview the children were asked if they would be willing to participate in the second phase of the study in approximately four months time, and all twenty children agreed to this at this stage. The parents were reminded about the second phase of the study, and told that their child was willing to take part. Both were thanked for their participation so far.

2.4.3 Semi-structured interview – phase two

After approximately four months, the parents of the original participants were contacted by telephone and asked if their child would be willing to take part in the second phase of the study. Sixteen children agreed, two declined and two were not available. Mutually convenient dates and times for the repeat interviews were arranged, and letters of confirmation sent to the children. The sixteen interviews were conducted within a period of a week, the majority taking place in the half-term holiday between the 20th and 24th of February, 1995.

Once again, the children's willingness to participate was confirmed on arrival, and the interviews were conducted in private. The brief

version of the Semi-Structured Interview (2.3.6) was administered, and on this occasion the interviews lasted between 20 and 45 minutes. On completion, it was explained to the children that no further contact was required for the study, but that a summary of the findings would be forwarded to them in a few months. This was reiterated to their parents, along with gratitude for their participation in the study.

2.5 Analyses

Percentage values and inferential statistics, namely Chi Square, were employed to allow conclusions to be drawn about the coping strategies employed by children according to the group to which they had been assigned. Due to the fact that there were only 20 participants in the study, expected cell frequencies were less than five in all contingency tables containing more than four cells. Although the issue remains a source of controversy, some authors argue that this can make chi-square unreliable (Bryman & Cramer, 1994). The results should therefore be interpreted with caution.

Correlational analysis was used to investigate the relationships between measures of psychological adjustment (anxiety and depression), and measures of the sibling relationship (SIB and Sibling relationship satisfaction scale). Cramer's V values were obtained to establish the stability of the coping strategies employed by children after a four month interval. In order to illustrate certain points descriptive techniques were also employed.

2.5.1 Coding the semi-structured interviews

The written record of responses were checked for accuracy with tape recordings of the semi-structured interviews for 50% of participants, selected at random. Confirmed to be a reliable account, the majority of the information gathered from the semi-structured interview could be coded in a straight forward manner, that is, by assigning numerical values according to the response. However, for some sections of the interview, it was necessary to develop a coding system.

2.5.1.1 Coding advantages and disadvantages

All 'Advantages' and 'Disadvantages' were listed, and several categories emerged. The categories identified for 'Advantages' were; a) get on well together, b) rewarding to look after, c) meet more people/ go to more places, d) get practical and financial help and e) more understanding about disabilities. The categories identified for 'Disadvantages' were a) anger at other people staring, b) restricts family activities, c) concern for welfare, d) annoying behaviours, e) embarrassed by sibling, and f) unfair responsibilities.

2.5.1.2 Coding the stress and coping inventory

In order to code the children's responses to the six scenarios presented in this section of the semi-structured interview, an adapted version of the coding system outlined by Wertlieb et al. 1987) was employed (refer to Instructions to coders, Appendix IV for a detailed account). In brief, the coder was required to read each child's response in full, classifying it according to the following criteria:

a) Focus

Focus was coded as 'Self' when the child's response was directed at his or her own action or subjective emotion. Focus was coded as

'Environment' when the child's response was directed towards things or people in the environment. 'Other' was coded when the child did nothing to cope but was rescued by someone in the environment.

b) Function

The response was coded as 'Problem Solving' if it was problem focused and instrumental, and where the function of the response was to change the problematic situation either by changing behaviour or action, or by changing the damaging or threatening environment. The response was coded as 'Emotion Management' when the response was palliative in nature, the function of this type of response being to manage subjective and affective components of the experience.

c) Mode

The mode of the response could take one of several forms, namely 'Support Seeking', 'Cognitive Restructuring', 'Direct Action', 'Intrapsychic', or 'Acting Out'.

d) Affect

A code of 'Neutral', 'Mild' or 'Moderate' was assigned according to the affect the child expressed in response to the scenario.

e) Adaptiveness

A code of 'Positive', 'Neutral' or 'Negative' was assigned to each response in an attempt to summarise the adaptiveness of the child's reaction to each scenario.

2.5.1.3 Inter-rater reliability

In order to establish the reliability of the coding system, two independent raters re-coded 5% of the responses (120 separate units). Kendall's Coefficient of Concordance found correlations between the three independent coders to be highly significant for each of the coding categories ('w' values ranged from .71 to .98). The lowest 'w'

value (.71) was for the coding of 'response'. This category was the most subjective in that it required the coders to come to an opinion as to how they felt the children had responded overall to the scenario, that is positively, negatively or in a neutral manner. The reliability indices were therefore deemed satisfactory for initial analyses.

3.0 RESULTS

3.1 Hypotheses

3.1.1 Children's satisfaction with the sibling relationship will be positively correlated with their parent's perception of this relationship

Spearman's correlation coefficient found a high correlation between participants satisfaction with the sibling relationship, as measured by the Sibling Satisfaction Scale, and parents perception of this relationship, as measured by the SIB ($r = .75$, $N = 20$; $p < .001$). This significant correlation adds support to the validity of both measures.

3.1.2 Children's satisfaction with the sibling relationship will be negatively correlated with measures of psychological adjustment

	Rel	Dep
Dep	-.49*	
Anx	-.27	.42

* p< .05

Table 1. Spearman correlation coefficients - satisfaction, depression and anxiety.

Table.1 shows Spearman correlation coefficients for satisfaction with the sibling relationship, depression and trait anxiety. There is a modest correlation between satisfaction with sibling the relationship and depression in the expected direction ($r = -.49$, $N = 20$; $p < .05$). Although non-significant, there is a weak correlation between anxiety and satisfaction, again in the expected direction.

3.1.3 The appraisals, coping strategies and evaluation of responses to stressors will be different according to whether the sibling relationship is positive or negative

3.1.3.1 Standard stressor scenarios

Scenario 1 - Learning disabled sibling takes belongings

a) Appraisals

As is illustrated by table 2., when presented with a specific scenario where the sibling takes a belonging, 90% of participants in the 'positive relationship' group said that this type of thing happened 'hardly ever', where as 50% of those in the 'negative relationship' said it happened 'sometimes'. Using the chi-square statistic, this result approached levels of significance.

		Group	
		Positive rel (%)	Negative rel (%)
	Hardly ever	90	40
Takes belongings	Sometimes	10	50
	A lot	0	10
	Total	N = 10	N = 10

Chi-square = 5.59, d.f. = 2;   p = 0.06

Table 2. Frequency - scenario 1.

There were no differences between the groups in their appraisal of how much they could do about this particular scenario. However, there were differences between the groups regarding their appraisal of the size of the problem. Participants in the 'positive relationship' group were significantly more likely to appraise the problem as 'little', where as participants in the 'negative relationship' group were more

likely to appraise the problem as 'medium sized' or 'big'. These
results are illustrated in table 3.

		Group	
		Positive rel (%)	Negative rel (%)
	Little	90	30
Size of problem	Medium	10	30
	Big	0	40
	Total	N = 10	N = 10

Chi-square = 8.00, d.f. = 2;   p < 0.01

Table 3. Size of problem - scenario 1.

b) Coping strategies

i Focus

The focus of the coping strategies employed by participants for this
particular scenario were 'environment-directed', regardless of whether
the relationship was positive or negative.

ii Function

The function of the coping strategies were fairly evenly spread
between 'problem-solving' and 'emotion-management', irrespective of
the nature of the sibling relationship.

iii Mode

Table 4. illustrates the percentage of participants who said they would
employ the various modes of coping strategies in response to scenario
1. As can be seen, only 30% of the 'positive relationship' group said
they would 'act out', compared with 60% of the 'negative relationship'
group. 'Support seeking', on the other hand, was the mode employed

by 30% of the 'positive relationship' group, compared with only 10% of the 'negative relationship' group.

		Group	
		Positive rel (%)	Negative rel (%)
	Support seeking	30	10
Mode	Cog restructuring	10	0
	Direct action	30	30
	Acting out	30	60
	Total	N=10	N=10

Table 4. Mode of coping strategy - scenario 1.

There were no differences between the groups in terms of how useful they evaluated their responses to be.

c) Assessment of response

i Affect

Although the chi-square statistic found the result to be non-significant, table 5. indicates that 80% of the 'negative relationship' group were assessed as displaying 'moderate' affect in response to scenario 1, compared with 40% in the 'positive relationship' group.

		Group	
		Positive rel (%)	Negative rel (%)
	Neutral	20	0
Affect	Mild	40	20
	Moderate	40	80
	Total	N = 10	N = 10

Chi-square = 4.0, d.f. = 2;   NS,   p > 0.05

Table 5. Assessment of affect - scenario 1.

ii Adaptiveness

Table 6. illustrates that 60% of the 'positive relationship' group were evaluated as responding positively to scenario 1, compared with 30% of the 'negative relationship' group. Furthermore, 60% of the 'negative relationship' group were evaluated as responding negatively, compared with 30% of the 'positive relationship' group. The chi-square statistic found the result to be non-significant.

		Group	
		Positive rel (%)	Negative rel (%)
	Positive	60	30
Response	Negative	30	60
	Neutral	10	10
	Total	N = 10	N = 10

Chi-square = 2.0, d.f. = 2;   NS,   p > 0.05

Table 6. Assessment of response - scenario 1.

Scenario 2 - Learning disabled sibling has annoying behaviours

a) Appraisals

All participants were most likely to say that situations like scenario 2 occurred 'hardly ever'. No differences between the groups could be found in terms of how much could be done about the situation. Although most participants regarded it to be a 'little' problem, 30% of the 'negative relationship' group considered it to be a 'big' problem, compared with none in the 'positive relationship' group.

b) Coping strategies

i Focus

Most participants offered coping strategies that were 'environment-directed', with only one, in the 'positive relationship' group saying they would employ a 'self-directed' strategy.

ii Function

Table 7. illustrates that 100% of participants in the 'positive relationship' group employed 'problem-solving' coping strategies, compared with 70% in the 'negative relationship' group. The chi-square statistic suggests that this result approaches significance levels.

		Group	
		Positive rel (%)	Negative rel (%)
	Problem solving	100	70
Function	Emotion management	0	30
	Total	N = 10	N = 10

Chi-square = 3.53, d.f. = 1; p = 0.06

Table 7. Function of coping strategy - scenario 2.

iii Mode

		Group	
		Positive rel (%)	Negative rel (%)
	Support seeking	30	10
Mode	Cog restructuring	20	0
	Direct action	50	60
	Intrapsychic	0	10
	Acting out	0	20
	Total	N = 10	N = 10

Table 8. Mode of coping strategy - scenario 2.

Table 8. illustrates the percentage of participants employing the various modes of coping strategy in response to scenario 2. As can be seen, most participants irrespective of group, employed 'direct action' strategies. There was a tendency for participants in the 'positive relationship' group to employ 'support seeking', and 'cognitive restructuring', where as those in the 'negative relationship' group employed 'intrapsychic' or 'acting out' strategies.

All those in the 'positive relationship' group believed their response to be useful, compared with 70% in the 'negative relationship' group.

c) Assessment of response

i Affect

There were no differences between the groups in terms of the intensity of their affect in response to scenario 2.

ii Adaptiveness

		Group	
		Positive rel (%)	Negative rel (%)
	Positive	90	50
Response	Negative	0	40
	Neutral	10	10
	Total	N = 10	N = 10

Chi-square = 5.1, d.f. = 2;   p = 0.07

Table 9. Assessment of response – scenario 2.

Table 9. illustrates that 90% of participants in the 'positive relationship' group were evaluated as responding positively, compared with 50% of those in the 'negative relationship' group. Furthermore,

40% of participants in the 'negative relationship' group were evaluated as responding negatively, compared with none in the 'positive relationship' group. These results approached significance.

Scenario 3 - Learning disabled sibling causes embarrassment

a) Appraisals

		Group	
		Positive rel (%)	Negative rel (%)
	Yes	100	60
Embarrassment	No	0	40
	Total	N = 10	N = 10

Chi-square = 5.0, d.f. = 1;   p = 0.02

Table 10. Causes embarrassment, by group.

As table 10. indicates, all participants in the 'positive relationship' group said that their sibling had embarrassing behaviours, compared with 60% of the 'negative relationship' group, and the chi-square statistic found this result to be significant. Indeed, when presented with a specific scenario, 80% of the 'negative relationship' group said that this sort of thing happened 'hardly ever', compared with 50% of the 'positive relationship' group.

		Group	
		Positive rel (%)	Negative rel (%)
	almost nothing	40	80
Able to do	a little	50	10
	a lot	10	10
	Total	N = 10	N = 10

Chi-square = 4.0, d.f. = 2;   NS, p > 0.05

Table 11. Appraisal of control - scenario 3.

Interestingly, as is seen in table 11., participants in the 'negative relationship' group were more likely to appraise the situation as something they could do 'almost nothing' about, than participants in the 'positive relationship' group. The chi-square statistic did not find this result to be significant.

Although the result was again non-significant, table 12. indicates that participants in the 'positive relationship' group were more likely to appraise scenario 3 to be 'a little problem', where as participants in the 'negative relationship' group were more likely to appraise it to be 'a big problem'.

		Group	
		Positive rel (%)	Negative rel (%)
	Little	70	30
Size of problem	Medium	20	20
	Big	10	50
	Total	N = 10	N = 10

Chi-square = 4.2. d.f. = 2; NS, p > 0.05

Table 12. Size of problem - scenario 3.

b) Coping strategies

i Focus

Participants in the 'positive relationship' group were more likely to use 'environment-directed' coping strategies, where as participants in the 'negative relationship' group were just as likely to use 'self-directed' coping strategies, as they were to use 'environment-directed' coping strategies. As table 13. illustrates, the chi-square statistic found this result to be non-significant.

		Group	
		Positive rel (%)	Negative rel (%)
	Self-directed	20	50
Focus	Environment-directed	80	50
	Total	N = 10	N = 10

Chi-square = 1.9, d.f. = 1;   NS, p > 0.05

Table 13. Focus of coping strategy - scenario 3.

ii Function

Participants in the 'positive relationship' group were more likely to employ 'problem-solving' coping strategies, where as participants in the 'negative relationship' group were more likely to employ 'emotion-management' coping strategies. As table 14. indicates, the chi-square statistic found this to approach significance.

		Group	
		Positive rel (%)	Negative rel (%)
	Problem solving	80	40
Function	Emotion management	20	60
	Total	N = 10	N = 10

Chi-square = 3.3, d.f. = 1;   p = 0.06

Table 14. Function of coping strategy - scenario 3.

iii Mode

Table 15. illustrates the percentage of participants who said they would employ the various modes of coping strategy in response to scenario 3. As can be seen, most participants in the 'positive relationship' group said they would use 'direct action' coping strategies. Although 50% of participants in the 'negative relationship' group also said they would use 'direct action', 40% said they would

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use 'intrapsychic' coping strategies. Again, this result approached significance levels.

		Group	
		Positive rel (%)	Negative rel (%)
	Cognitive restructuring	20	10
Mode	Direct action	80	50
	Intrapsychic	0	40
	Total	N = 10	N = 10

Chi-square = 5.0, d.f. = 2;   p = 0.05

Table 15. Mode of coping strategy - scenario 3.

iv Usefulness of response

As table 16. illustrates, participants in the 'positive relationship' group were significantly more likely to believe their response to scenario 3 to be useful.

		Group	
		Positive rel (%)	Negative rel (%)
	Yes	100	40
Useful	No	0	60
	Total	N = 10	N = 10

Chi-square = 8.6, d.f. = 1;   p = 0.003

Table 16. Usefulness of response - scenario 3.

c) Assessment of response

i Affect

Although non-significant, table 17 illustrates that participants in the 'negative relationship' group were more likely to be assessed as displaying 'moderate' affect in response to scenario 3.

		Group	
		Positive rel (%)	Negative rel (%)
Affect	Neutral	40	30
	Mild	20	0
	Moderate	40	70
	Total	N = 10	N = 10

Chi-square = 2.9, d.f. = 2;   NS, $p > 0.05$

Table 17. Assessment of affect - scenario 3.

ii Adaptiveness

Table 18. illustrates that the 'positive relationship' group were significantly more likely to be evaluated as responding positively to scenario 3 than participants in the 'negative relationship' group.

		Group	
		Positive rel (%)	Negative rel (%)
Response	Positive	90	40
	Negative	0	40
	Neutral	10	20
	Total	N = 10	N = 10

Chi-square = 6.2, d.f. = 2; $p = 0.04$

Table 18. Assessment of response - scenario 3.

Scenario 4 - Clearing up after learning disabled sibling

a) Appraisals

Participants in the 'positive relationship' group were as likely to say that they had to look after, or clear up after their learning disabled sibling as participants in the 'negative relationship' group. However, when presented with a specific scenario, 80% of participants in the 'positive relationship' group, said that this type of thing happened

'hardly ever', compared with 40% in the 'negative relationship' group. Only 10% in the 'positive relationship' group, and 20% in the 'negative relationship' group said that it happened 'a lot'.

There were no differences between the groups in appraisals of how much could be done about this particular scenario. Although non-significant, table 19. illustrates that participants in the 'positive relationship' group were most likely to appraise the problem as 'little', where as participants in the 'negative relationship' group were most likely to appraise it as 'medium' sized.

		Group	
		Positive rel (%)	Negative rel (%)
	Little	60	20
Size of problem	Medium	20	50
	Big	20	30
	Total	N = 10	N = 10

Chi-square = 3.5, d.f. = 2;   NS, p > 0.05

Table 19. Size of problem - scenario 4.

b) Coping strategies

i Focus

There were no differences between the groups in terms of the focus of the coping strategies they employed, with all but one of the participants employing strategies that were 'environment-directed'.

ii Function

Similarly, all but one of the participants employed coping strategies that served the function of 'problem-solving'.

iii Mode

Table 20. illustrates the percentage of participants who said they would employ the various modes of coping strategies in response to scenario 4. As can be seen, all participants in the 'positive relationship' group said they would take 'direct-action'. Although this was also the most common mode employed by the 'negative relationship' group, 40% of participants in this group used a variety of different modes.

		Group	
		Positive rel (%)	Negative rel (%)
	Support seeking	0	20
Mode	Direct action	100	60
	Intrapsychic	0	10
	Acting out	0	10
	Total	N = 10	N = 10

Table 20. Mode of coping strategy - scenario 4.

The majority of participants believed their response to be useful, irrespective of group.

c) Assessment of response

i Affect

Table 21. illustrates that no participants in the 'positive relationship' group were assessed as displaying 'moderate' affect in response to scenario 4, compared with 40% in the 'negative relationship' group. This result approached levels of significance.

		Group	
		Positive rel (%)	Negative rel (%)
	Neutral	40	20
Affect	Mild	60	40
	Moderate	0	40
	Total	N = 10	N = 10

Chi-square = 5.0, d.f. = 2;   p = 0.07

Table 21. Assessment of affect - scenario 4.

ii Adaptiveness

Table 22. illustrates that, although the result was found to be non-significant, 100% of the 'positive relationship' group were assessed as responding positively to scenario 4, compared with 70% of the 'negative relationship' group.

		Group	
		Positive rel (%)	Negative rel (%)
	Positive	100	70
Response	Negative	0	20
	Neutral	0	10
	Total	N = 10	N = 10

Chi-square = 3.5, d.f. = 2;   NS, p > 0.05

Table 22. Assessment of response - scenario 4.

Scenario 5 - Learning disabled sibling kicks, punches or shoves.

a) Appraisals

Participants in both groups said that their sibling with learning disabilities kicked, punched or shoved them really hard. However, when presented with a specific scenario, 60% of participants in the 'positive relationship' group said that this sort of thing happened

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'hardly ever', where as 70% of the participants in the 'negative relationship' group said that it happened 'sometimes'.

Although non-significant, table 23. illustrates that participants in the 'positive relationship' group were more likely to appraise scenario 5 as something they could do 'almost nothing' about, whereas participants in the 'negative relationship' group were more likely to appraise it as something they could do 'a lot' about.

		Group	
		Positive rel (%)	Negative rel (%)
	almost nothing	60	20
Appraisal	a little	10	10
	a lot	30	70
	Total	N = 10	N = 10

Chi-square = 3.6, d.f. = 2;   NS, p > 0.05

Table 23. Appraisal of control - scenario 5.

There were some differences between the groups in how they appraised the size of the problem. Table 24 illustrates that the 'positive relationship' group were more likely to appraise the problem as 'little', although the results were non-significant.

		Group	
		Positive rel (%)	Negative rel (%)
	Little	60	40
Size of problem	Medium	40	40
	Big	0	20
	Total	N = 10	N = 10

Chi-square = 2.4, d.f. = 2;   NS, p > 0.05

Table 24. Size of problem - scenario 5.

b) Coping strategies

i Focus

All but one of the participants employed coping strategies that were focused on the environment.

ii Function

The majority of participants employed coping strategies that served a 'problem-solving' function. However, two participants in the 'positive relationship' group, and one in the 'negative relationship' group employed strategies that served an 'emotion-management' function.

iii Mode

Table 25. demonstrates that there were some differences between the groups in terms of the mode of coping strategy employed, although most employed 'direct-action' strategies.

		Group	
		Positive rel (%)	Negative rel (%)
	Support seeking	30	10
Mode	Direct action	60	80
	Intrapsychic	10	0
	Acting out	0	10
	Total	N = 10	N = 10

Table 25. Mode of coping strategy - scenario 5.

The majority of participants judged their response to be useful, irrespective of group.

c) Assessment of response

i Affect

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As table 26. illustrates, participants in the 'positive relationship' group were more likely to be assessed as displaying 'mild' affect in response to scenario 5, where as participants in the 'negative relationship' group were more likely to be assessed as displaying 'moderate' affect. The Chi-square statistic found this result to be significant.

| | | Group | |
		Positive rel (%)	Negative rel (%)
	Neutral	40	40
Affect	Mild	50	0
	Moderate	10	60
	Total	N = 10	N = 10

Chi-square = 8.5, d.f. = 2;   p = 0.01

Table 26. Assessment of affect - scenario 5.

ii Adaptiveness

Table 27. illustrates that participants in the 'negative relationship' group were significantly more likely to be evaluated as responding negatively to scenario 5 than participants in the 'positive relationship' group.

| | | Group | |
		Positive rel (%)	Negative rel (%)
	Positive	70	50
Response	Negative	0	50
	Neutral	30	0
	Total	N = 10	N = 10

Chi-square = 8.3, d.f. = 2;   p = 0.01

Table 27. Assessment of response - scenario 5.

Scenario 6 - Learning disabled sibling goes into hospital.

a) Appraisals

Participants in the 'positive relationship' group were more likely to say that their sibling got ill or went into hospital than siblings in the 'negative relationship' group (90% and 50% respectively). There were no differences between the groups in their appraisal of how much they could do about scenario 6, with the majority of participants saying they could do 'almost nothing'. Similarly, there were no differences between the groups in their appraisals of the size of the problem, with most saying it would be a 'big' problem.

b) Coping strategies

i Focus

Participants in the 'positive relationship' group were just as likely to use 'environment-directed' coping strategies as they were to use 'self-directed' strategies, where as participants in the 'negative relationship' group were more likely to use 'self-directed' strategies. This result was not significant, as table 28. illustrates.

		Group	
		Positive rel (%)	Negative rel (%)
	Self-directed	50	70
Focus	Environment-directed	50	30
	Total	N = 10	N = 10

Chi-square = .83, d.f. = 1;   NS, p > 0.05

Table 28. Focus of coping strategy - scenario 6.

ii Function

There were no differences between the groups, the majority of participants employing strategies that served the function of 'emotion-management'.

iii Mode

Similarly, there were no differences between the groups in terms of the mode of the coping strategies employed, the majority using 'intrapsychic' strategies, or taking 'direct action' in response to the scenario. Nor were there any differences between the groups with regards how useful they judged their responses to be.

c) Assessment of response

i Affect

As table 29. demonstrates, participants in the 'negative relationship' group were more likely to be evaluated as displaying 'moderate' affect in response to scenario 6, although the finding was non-significant.

		Group	
		Positive rel (%)	Negative rel (%)
	Neutral	30	0
Affect	Mild	20	10
	Moderate	50	90
	Total	N = 10	N = 10

Chi-square = 4.4, d.f. = 2;   NS, $p > 0.05$

Table 29. Assessment of affect - scenario 6.

ii Adaptiveness

None of the participants were assessed as responding negatively to scenario 6. However, participants in the 'positive relationship' group were more likely to be evaluated as responding positively, where as

participants in the 'negative relationship' group were more likely to be evaluated as having a 'neutral' response (60% and 70% respectively).

3.1.3.2 Summary of responses to the scenarios

i Appraisals

The responses to the three appraisal questions (how much could be done about the problem, size of problem, and frequency with which the problem occurs) were assigned a value between one and three, and summed for the six scenarios. Independent t tests found no differences between the groups in their appraisals of how much could be done about the scenarios ($t = .0$, d.f. $= 18$, NS, $p >0.05$), or the frequency with which they occur ($t = -.89$, d.f. $= 18$, NS, $p > 0.05$). However, participants in 'negative relationship' group were significantly more likely to appraise the scenarios as constituting a bigger problem than participants in the 'positive relationship' group ($t = -3.58$, d.f. $= 18$, $p < 0.002$).

ii Coping strategies

The focus, function and mode of coping strategies across the six scenarios was summed to provide an average percentage value.

a) Focus
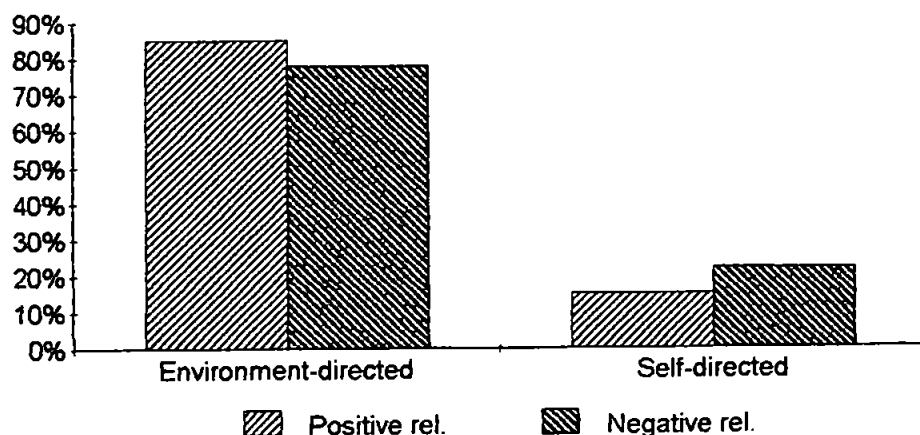
Figure 1. Summary of focus of coping strategies, by group.

As figure 1. shows, although most participants employed environment-directed coping strategies, a slightly higher percentage of participants in the 'negative relationship' group opted for strategies with a focus on the self.

b) Function
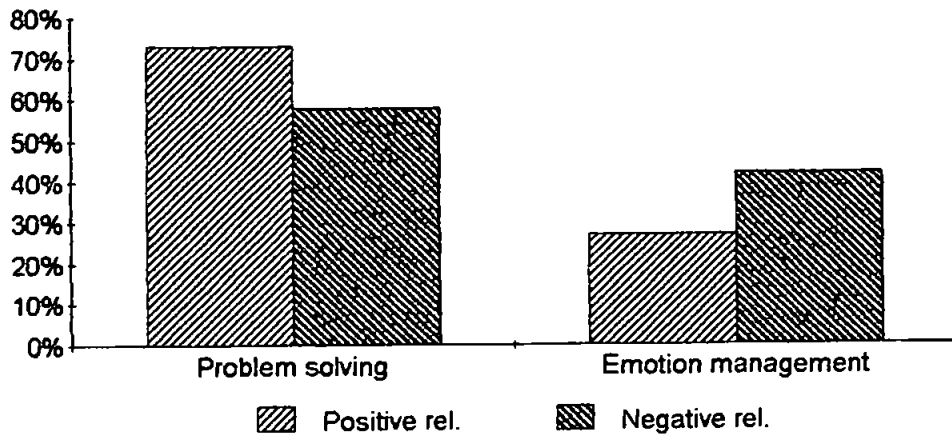
Figure 2. Summary of function of coping strategies, by group.

Figure 2. illustrates that although most participants opted for problem-solving coping strategies, participants in the 'negative relationship' group were slightly more likely to use emotion-management strategies than those in the 'positive relationship' group.

c) Mode
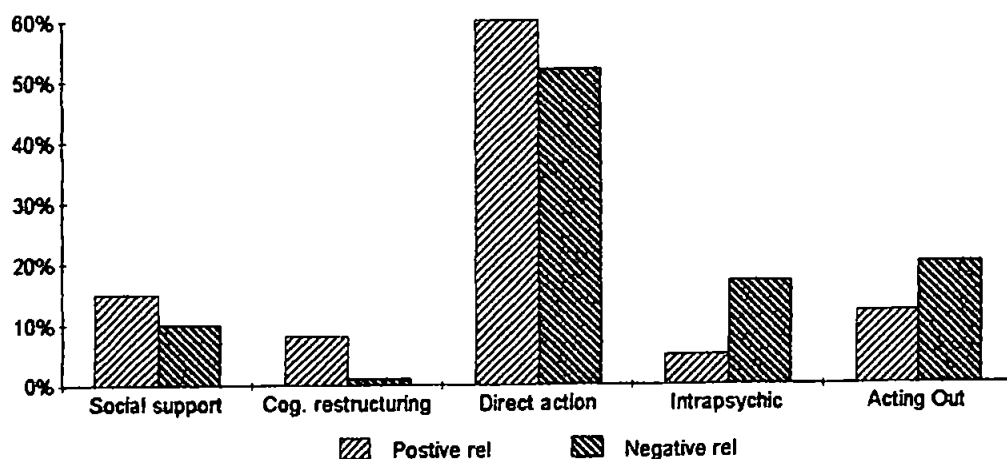
Figure 3. Summary of mode of coping strategies, by group.

Figure 3. illustrates that although most participants said they would take 'direct action' in response to the various scenarios, those in the 'positive relationship' were slightly more likely to employ 'social support' and 'cognitive restructuring', where as participants in the 'negative relationship' group were slightly more likely to employ 'intrapsychic' strategies, or to 'act out'.

iii Assessment of responses

The adaptiveness of the responses across the six scenarios were summed for each participant. As figure 4. illustrates, most participants were evaluated as responding positively to the scenarios. However, participants with a 'negative relationship' were clearly more likely to have been evaluated as responding negatively, and those with a 'positive relationship' were more likely to have been evaluated as responding positively. Both groups were just as likely to have their responses evaluated as being neutral.
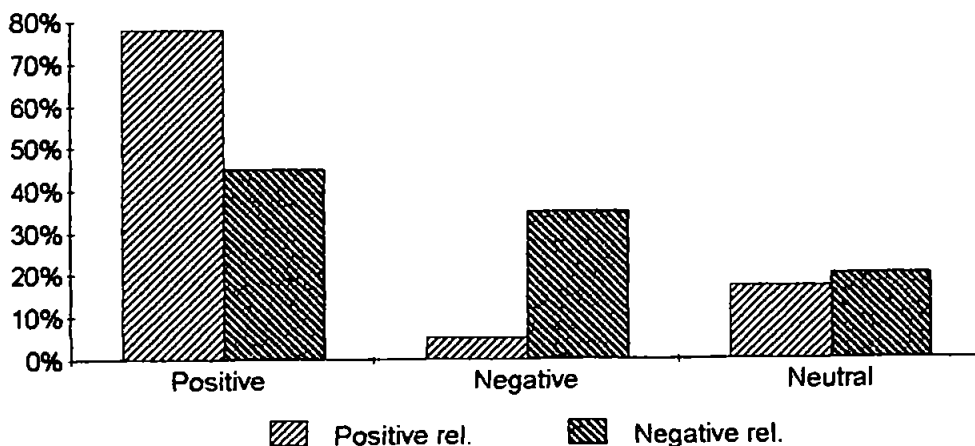
Figure 4. Summary of adaptiveness of response, by group.

The assessments of affect were assigned a value between one and three, and summed across the six scenarios. Participants in the

'negative relationship' group were rated as expressing significantly more affect in response to the scenarios than those in the 'positive relationship' group (t = -3.4, d.f. = 18, p = 0.003).

3.1.3.3 Kidscope

Participants volunteered a wide variety of examples as the main disadvantage of having a sibling with learning disabilities, both within and between groups. Consequently, when completing the Kidscope, a wide variety of coping strategies were cited as being employed in response to very different stressors. Given the small number of participants in the study, it is therefore difficult to compare the groups on the basis of how they completed this measure.

In addition to completing the Kidscope, participants were required to rate the amount of affect they associated with the problem they chose to be the main disadvantage. There were no differences between groups in terms of the amount of anger (t = 1.54, d.f. = 18; p > 0.05), or the amount of sadness (t = 1.02, d.f. = 18; p > 0.05) associated with the stressors that were chosen. However, participants in the 'negative relationship' rated themselves as significantly more nervous than those in the 'positive relationship' group (t = -3.56, d.f. = 18; p = 0.02) in relation to these self-generated stressors.

3.1.4 Satisfaction with the sibling relationship is stable, and will therefore remain relatively constant after a period of four months

Spearman's correlation coefficient demonstrated a moderate correlation between satisfaction with the sibling relationship, and the same measure repeated after four months (r = .55, N = 16, p < 0.02).

3.1.5 The coping strategies employed by children in response to stressful events represent a process measure and therefore have only limited stability over time

3.1.5.1 Standard stressor scenarios

Scenario 1 - Learning disabled sibling takes belongings

Focus - same	different	Cramer's V
Environment = 16	0	non-computable
Self = 0		
Function - same	different	Cramer's V
Problem solving = 5	6	0.25
Emotion management = 5		
Mode - same	different	Cramer's V
Support seeking = 2	12	0.45
Direct action = 1		
Acting out = 1		

Table 30. Number of participants who employed the same focus function and mode of coping strategy - scenario 1 repeated (n = 16).

Scenario 2 - Learning disabled sibling has annoying behaviours

Focus - same	different	Cramer's V
Environment = 15	1	non-computable
Self = 0		
Function - same	different	Cramer's V
Problem solving = 14	2	non-computable
Emotion management = 0		
Mode - same	different	Cramer's V
Support seeking = 1	10	0.48
Direct action = 5		

Table 31. Number of participants who employed the same focus, function and mode of coping strategies - scenario 2 repeated (n = 16).

Scenario 4 - Clearing up after learning disabled sibling

Focus - same	different	Cramer's V
Environemnt = 14	2	non-computable
Self = 0		
Function - same	different	Cramer's V
Problem solving = 14	2	non-computable
Emotion management = 0		
Mode - same	different	Cramer's V
Support seeking = 2	3	.83 **
Direct action = 11		

** p < .001

Table 32. Number of participants who employed the same focus, function and mode of coping strategy - scenario 4 repeated (n = 16).

Table 30-32. illustrate the number of participants who employed the same focus, function and mode of coping strategy in response to scenarios 1, 2, and 4. To determine the probability that the results could have occurred by chance, Cramer's V was applied to the data where it could be calculated. The results suggest that although there is some stability in the focus, function and mode of coping strategies employed by participants after a period of four months, it rarely reaches levels of significance, and is not consistent across the three scenarios.

3.1.5.2 Kidscope

Seven of the sixteen participants generated a problem in the category 'other people staring' on both occasions that they were required to complete the Kidscope. Cramer's V found this to be significant (V = .81, p = 0.01).

Table 33. illustrates the number of participants who used or didn't use the same coping strategies on the Kidscope on both occasions, along with Cramer's V values where they could be calculated. As can be seen, although a number of participants employed the same strategies, this was only found to be significant for 'self-criticism', 'blaming others', 'shouting and screaming'. Fifteen participants employed 'wishful thinking' on both occasions.

Coping Strategy	Used	Not Used	Cramer's V
Distraction	12	0	-0.12
Social withdrawal	3	7	0.22
Cognitive restructuring	9	1	0.09
Self-criticism	2	12	0.65 **
Blaming others	4	9	0.59 *
Problem solving	10	1	0.09
Emotion regulation	9	2	0.23
Wishful thinking	15	0	
Social support	11	1	0.18
Resignation	4	7	0.36
Shouted & screamed	4	9	0.59 *

* p < .05, ** p < .001

Table 33. Kidscope - coping strategies employed on both occasions.

3.1.6 Parents have limited insight into the specific stressors relating to the sibling relationship

3.1.6.1 Disadvantages as perceived by parents.

The 'Parent's Questionnaire' was completed by 17 parents. Figure 5. illustrates the first, second and third disadvantage of having a learning disabled sibling, as perceived by these parents. Of the parents who responded, most perceived 'annoying behaviours' to be

the main draw back of having a learning disabled sibling, with 53%
citing an example in this category as the first disadvantage, and 35%
citing an example in this category as the second disadvantage. The
category 'embarrassment and/or anger caused by others' was also well
represented, with 35% of parents citing examples in this category as
both the first and second disadvantage. All parents who responded
could think of at least two disadvantages, although 53% could not
think of a third disadvantage.
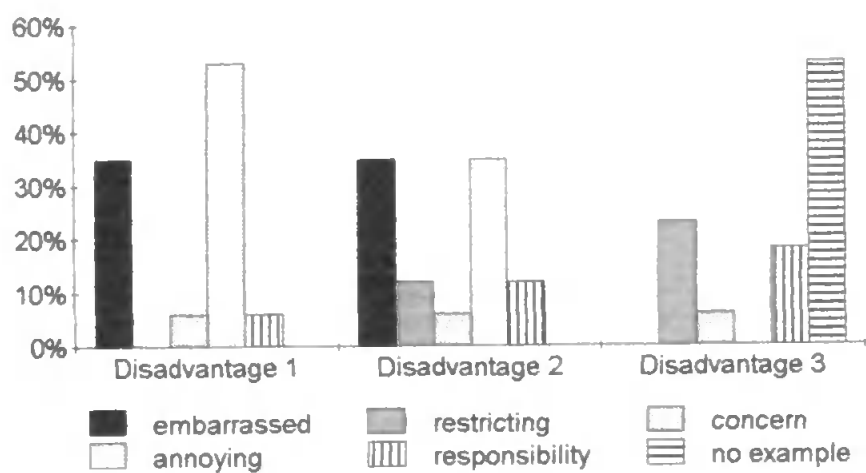
Figure 5. Disadvantages as perceived by parents.

3.1.6.2 Comparison of the main disadvantage as perceived by parents
and participants.

Main disadvantage	No. of cases
Other people staring	2
Restricts family activites	1
Concern for welfare	2
Embarrassed by sibling	1

Table 34. Cases where parents and participants agreed on the main
disadvantage.

Table 34. shows the cases where the main disadvantage as perceived by parents corresponded with the main disadvantaged volunteered by the participants. As can be seen, only six of the 17 parents were able to guess with any accuracy what their child said would be the main disadvantage of having a learning disabled sibling.

3.2 Descriptive statistics

3.2.1 Advantages and disadvantages of learning disabled sibling
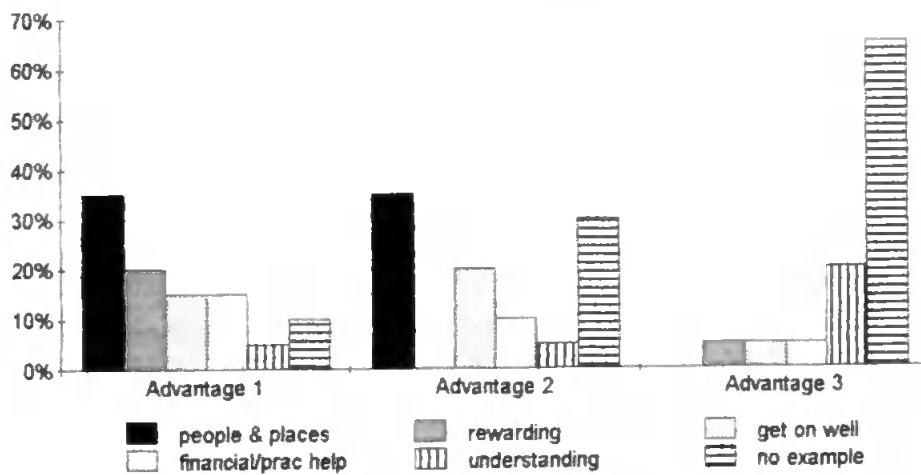
Figure 6. Advantages of having a learning disabled sibling.

Figure 6. illustrates the percentage of participants who volunteered the various categories as first, second or third advantage of having a learning disabled sibling.

Only 10% of the participants could not think of a single advantage of having a learning disabled sibling. This percentage increased to 30% when participants were required to think of a second advantage, rising to 65% of participants being unable to think of a third advantage. Of the advantages that were offered, most fell into the

category of 'meet more people/ go to more places', with 35% of participants volunteering examples in this category as both a first and second advantage. 'Rewarding to look after', 'get on well together', 'more understanding as a result', and 'get practical and financial help' were evenly represented.

Figure 7. illustrates the percentage of participants who volunteered the various categories as first, second or third disadvantage of having a learning disabled sibling.
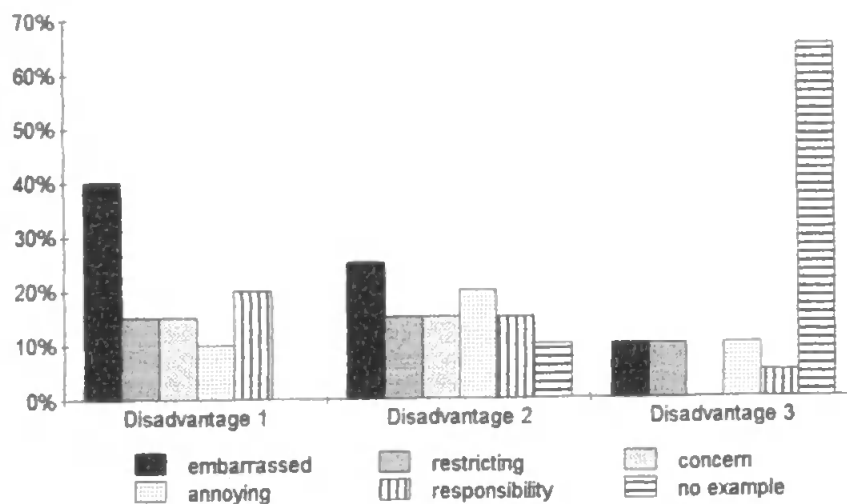
Figure 7. Disadvantages of having a learning disabled sibling.

All participants could think of at least one disadvantage, but 10% could not think of a second disadvantage, and 65% could not think of a third disadvantage. Of the disadvantages participants volunteered, by far the most common fell into the category of 'embarrassment and/or anger caused by others', with 40% citing an example in this category as the first disadvantage, 25% as the second disadvantage, and 10% as the third disadvantage. The other categories, namely; 'restricts family activities', 'concern for welfare', 'annoying

behaviours' and 'unfair responsibilities' were fairly evenly represented in the sample.

3.2.2 Main disadvantage by group

Figure 8. illustrates the main disadvantage cited by participants, according to whether they were in the 'positive relationship' or 'negative relationship' group.
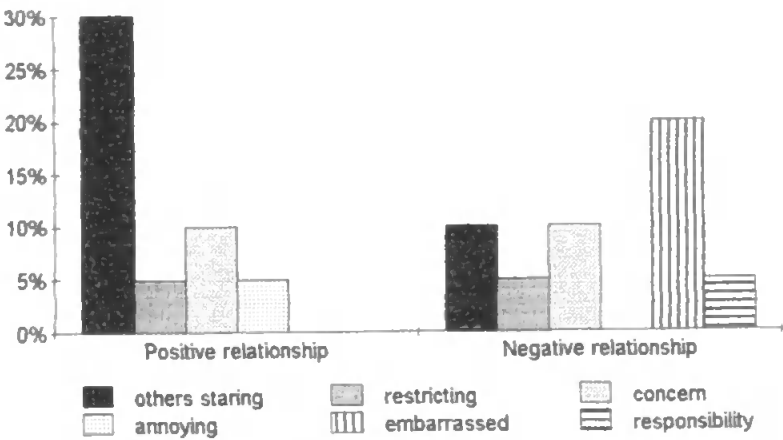
Figure 8. Main disadvantage, by group.

On this occasion 'anger at other people staring', and 'embarrassment' were kept as separate categories. Participants in the 'positive relationship' group were most likely to choose an example in the category 'anger at other people staring' as the main disadvantage. Participants in the 'negative relationship', on the other hand, were most likely to choose an example in the category 'embarrassed by sibling' as the main disadvantage. Otherwise, the disadvantages were evenly spread across the various categories for both groups.

3.3 Is talking to other siblings a good idea?

Figure 9. illustrates how participants responded to the question 'Is talking to other children who have brothers or sisters with learning disabilities a good, okay or bad idea?'
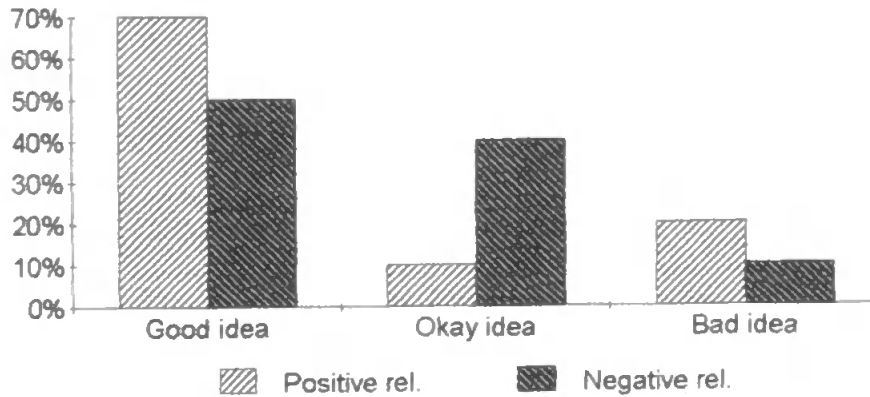
Figure 9. Merits of talking to other siblings, by group.

As can be seen, most participants thought that there was something to be gained from talking to other siblings, with those in the 'positive relationship' more likely to think it was a good idea, and those in the 'negative relationship' more likely to think it was an 'okay idea'.

Participants offered a variety of reasons as to why they thought talking to other siblings was a good, okay or bad idea, and these were grouped into categories. By far the most common was 'because we have experiences in common', followed by 'it helps to talk to someone'. Reasons given by those participants who thought it would be a bad idea included 'don't want to be lumbered with others problems' and more simply 'don't think it would help'. The groups did not differ in terms of the types of reasons they offered in response to this question.

4.0 <u>DISCUSSION</u>

4.1 <u>Hypotheses</u>

The hypotheses proposed at beginning of the study were, to a large extent, borne out. Each will now be discussed in turn, along with their implications and some directions for future research.

4.1.1 <u>Children's satisfaction with the sibling relationship will be positively correlated with their parent's perception of this relationship</u>

Participant satisfaction with the sibling relationship correlated highly with parental perceptions of this relationship. This suggests that parental observations of the sibling relationship are reasonably accurate. In addition, these findings support the validity of the Sibling Inventory of Behaviour as a measure, and suggest that it has utility in differentiating between children who have a positive relationship and those who have a negative relationship with their learning disabled sibling.

4.1.2 <u>Children's satisfaction with the sibling relationship will be negatively correlated with measures of psychological adjustment</u>

The hypothesis that satisfaction with the sibling relationship would be associated with measures of psychological adjustment was only partially borne out. Although there was a significant correlation between satisfaction and depression, there was only a very weak, non-significant correlation between satisfaction and anxiety. This is somewhat surprising given that there were significant differences between the groups in how nervous they felt in relation to the main disadvantage of having a learning disabled sibling, and yet there were

no differences between the groups in the amount of sadness they associated with this self-generated strerssor (refer to 3.2.3.3).

4.1.3 The appraisals, coping strategies and evaluation of responses to stressors will be different according to whether the sibling relationship is positive or negative

This hypothesis was largely supported. The summary of responses to the six stressor scenarios (3.2.3.2) suggests that children who have a negative relationship with their learning disabled sibling are significantly more likely to appraise stressful situations as constituting a bigger problem than siblings who have a positive relationship. This is particularly interesting given that there were no differences between the groups in terms of the frequency with which the various stressful situations actually occurred. The findings are therefore consistent with Folkman and Lazarus's (1984) contention that appraisals of potentially stressful events, and not simply the occurrence of those events, need to be taken into consideration in any investigation into stress and coping, and consequently any intervention programme.

There were also some differences between the groups regarding the focus, function and mode of the coping strategies employed in response to the scenarios. Although most children employed environment-directed strategies, those with a negative relationship were slightly more likely to employ strategies that focused on the self than those with a positive relationship. In addition, although most children employed strategies that served a problem-solving function, those with a negative relationship were slightly more likely to use emotion-management strategies than those with a positive relationship.

The mode of the majority of coping strategies employed was direct-action. However, children with a positive relationship were slightly more likely to use support seeking and cognitive restructuring strategies, whereas those with a negative relationship were slightly more likely to use intrapsychic strategies, or to act out. In addition, siblings with a negative relationship displayed significantly more affect, and were much more likely to be evaluated as responding negatively to the scenarios than siblings with a positive relationship.

These results reflect, in part, the findings of studies investigating the relationship between coping and adaptation; that is, that emotion management, self-directed coping is associated with poor adjustment (refer to 1.3.2.3 for summary). Following on from this, a general conclusion might be that children identified as having a negative relationship with their learning disabled sibling would benefit from interventions that teach and encourage them to employ environment directed, problem solving coping strategies that take the mode of either direct action, support seeking or cognitive restructuring. However, Folkman and Lazarus (1984) caution against drawing any firm conclusions about the relationship between coping and adaptation, suggesting that adaptive strategies are situation specific. Indeed, the results actually varied quite considerably across the six stressor scenarios, with some demonstrating greater differences between the two groups than others. Consequently, the findings are perhaps more meaningful, and have greater utility with regards implications for interventions, when responses to the six scenarios are considered individually.

Scenario 1 - Learning disabled sibling takes belongings

Although children in the negative relationship group said that this type of thing happened more often than children in the positive relationship group, only one child said that it happened 'a lot', suggesting that it is not a major issue for the siblings of children with learning disabilities. This is further supported by the fact that, when asked to think of some of the disadvantages of having a brother or sister with learning disabilities, none of the children generated a similar example. Although the validity of including this scenario in the study is therefore questionable, differences between the groups were demonstrated. For example, children in the negative relationship group were significantly more likely to appraise the example scenario to be a big problem. In addition, the majority of children in the negative relationship group responded by acting out, perhaps reflecting their strength of feeling in response to the situation. Children in the positive relationship group, on the other hand, were as likely to seek support, or take direct action as they were to act out.

Scenario 2 - Learning disabled sibling has annoying behaviours

The majority of children said that situations such as that presented in scenario 2 occurred hardly ever, again raising questions as to the validity of including this example. There were few differences between the groups in their appraisals of the situation, and most children offered coping strategies that were directed towards the environment. Although the function of the coping strategies employed by most children was problem solving, there was a significant tendency for children with a negative relationship to employ strategies that served an emotion management function. The preferred mode was direct

action, although those with a positive relationship also sought support or used cognitive restructuring, where as those with a negative relationship used intrapsychic strategies or acted out. Again, those in the negative relationship group were significantly more likely to be evaluated as responding negatively.

Scenario 3 - Learning disabled sibling causes embarrassment

This scenario clearly struck a chord with most of the children. Interestingly, those in the positive relationship group had encountered similar situations more frequently than those in the negative relationship group. However, it was children in the negative relationship group who were significantly more likely to see the situation as something they could do nothing about, and to appraise it to be a big problem. Perhaps, therefore, it is not the actual experience, but a fear that it might happen that constitutes the biggest stress for children. This is supported by the finding that the main disadvantages offered by children with a negative relationship fell into the category 'embarrassed by sibling', which included not having friends around because they did not want them to find about their brother or sister with learning disabilities. Children in the positive relationship group, on the other hand, were more likely to give examples in the category 'anger at other people staring', which implies that it is not being seen in public with their sibling that causes the problem, but rather the negative responses of others.

Differences between the groups were also demonstrated in the focus, function and mode of coping strategies the children employed. Those in the negative relationship group were more likely to use self-directed, emotion-management strategies than children in the positive

relationship group. Furthermore, children in the positive relationship group were significantly more likely to take direct action or use cognitive restructuring, where as a substantial percentage of those in the negative relationship group used intrapsychic strategies. Again, children with a negative relationship were significantly more likely to have their responses evaluated as being negative. However, they had insight into this, with the majority of them acknowledging that their responses were not useful.

Scenario 4 - Clearing up after learning disabled sibling

Only one child in the positive relationship group, and two in the negative relationship group said that the type of situation described in scenario 4 happened a lot, suggesting that unfair responsibilities are not as much of an issue as the literature implies. There were no differences between the groups in their appraisals of the scenario, other than that children with a positive relationship were slightly more likely to appraise it to be a little problem, and children with a negative relationship group were more likely to appraise it to be a medium sized problem. There were no differences between the groups in the focus and function of the coping strategies they employed. There were, however, differences in the mode employed, with all participants in the positive relationship group taking direct action, and those in the negative relationship group employing a variety of modes including direct action, intrapsychic and cognitive restructuring.

Scenario 5 - Learning disabled sibling kicks, punches or shoves

Children in the negative relationship group said that the sort of situation described in scenario 5 happened more frequently than those

in the positive relationship group. Interestingly, the children in the negative relationship group were significantly more likely to say that they could do a lot about the situation, whereas those with a positive relationship said they could do almost nothing. This is reflected in the mode of the coping strategies employed by the children, with 80% of those with a negative relationship taking direct action. However, half the children in the negative relationship group were evaluated as responding negatively to scenario 5, compared with none in the positive relationship group, illustrating the point that direct action is not necessarily the most adaptive response.

Scenario 6 - Learning disabled sibling goes into hospital

Children in the positive relationship group were more likely to say that their brother or sister with learning disabilities got ill, or had to go into hospital than those in the negative relationship group. However, there were no differences between the groups in their appraisals of the situation described in scenario 6. Regarding coping strategies, children in the negative relationship group were more likely to use self directed strategies, than those in the positive relationship group. However, the majority of children, irrespective of group, used strategies that served an emotion management function. None of the children were evaluated as responding negatively to this scenario, although those in the positive relationship group were more likely to be evaluated as responding positively, and those with a negative relationship were more likely to be evaluated as having a neutral response.

In sum, although there was clearly a tendency for the children in the two groups to respond differently to the stressor scenarios, there was

considerable variety across the situations. This highlights the importance of considering each child's response to each individual situation on its own merits, as opposed to drawing general conclusions about the most adaptive ways of coping with stress. However, the findings do suggest that appraisals and coping strategies play an important part in the nature of sibling relationships, and that this relationship has an impact on psychological adjustment. The potential benefits of sibling intervention programmes are clear. The merits of such programmes are discussed in section 4.2.3.

4.1.4 Satisfaction with the sibling relationship is stable, and will therefore remain relatively constant after a period of four months

The moderate correlation between satisfaction with the sibling relationship, and the same measure repeated after a period of four months served to confirm this hypothesis. In addition to adding weight to the reliability of the measure, this finding suggests that dissatisfaction with the sibling relationship is enduring, and that any stress arising as a result of that relationship is likely to be chronic. Given the significant relationship between dissatisfaction with the sibling relationship and depression, this serves to underline the importance of identifying those children who are most at risk. Intervention programmes could be designed to facilitate these children in dealing more effectively with the stressors that arise as a result of the sibling relationship on an ongoing basis. Furthermore, satisfaction with the sibling relationship could prove to be a useful baseline and outcome measure when evaluating any such planned intervention.

4.1.5 The coping strategies employed by children in response to stressful events represent a process measure, and therefore have only limited stability

This hypothesis was borne out, supporting the findings in the adult literature that coping is a process measure, and therefore has only limited stability (Folkman & Lazarus, 1984). The results suggest that although there is some stability in the focus, function and mode of the coping strategies employed in response to the standard stressor scenarios, this rarely reaches a level of significance, and is not consistent across the three scenarios that were repeated in the second phase of the study. The mode of coping was the category least likely to remain stable, although this is not surprising given that only two options were available for coding either the focus or function of coping, compared with five for coding the mode. Stability of coping as measured by the Kidscope also served to confirm the hypothesis, with the number of coping strategies employed by children on two separate occasions rarely reaching significance levels (table 33.). Interestingly, the strategies that did reach significance levels in terms of the stability with which there were used or not used included self-criticism, blaming others, shouting and screaming and wishful thinking. All of these strategies have been classified as examples of avoidance coping, and have been associated with poor adjustment (Spirito, 1989).

These findings on the stability of coping in children are very limited. Even so, some tentative implications for intervention programmes have emerged. For example, the findings suggest that although coping is not stable, there is some consistency in the way in which children respond to stressors. This would imply that, without any form of

intervention, children are unlikely to develop radically alternative ways of responding to stressful situations, particularly important when their responses are considered to be maladaptive. Indeed, the results of stability in coping as measured by the Kidscope illustrates the point very well. The findings suggest that children who reject avoidance strategies on one occasion are likely to reject them in the future, where as those who opt for them once are likely to use them on another occasion. Of course, the small number of participants, particularly in this phase of the study, mean that no firm conclusions can be drawn. However, the area clearly merits further investigation with a larger number of participants, and with varying intervals of time between repeating the measures.

4.1.6 Parents have limited insight into the specific stressors relating to the sibling relationship

The results also served to support this hypothesis, with only six parents able to guess with any accuracy what their child volunteered as the main disadvantage of having a learning disabled sibling. Most parents perceived 'annoying behaviours' to be the biggest draw back, yet very few children actually gave an example in this category. Parents did, however, have some insight into the difficulties their children face as a result of 'embarrassment and/or anger caused by others'. Thirty-five percent of parents gave examples in this category as either the first or second disadvantage.

These findings add weight to proposals made in the literature that the siblings themselves should be the main respondents in studies investigating the siblings of children with learning disabilities, and not their parents, teachers or other professionals. Indeed, these

results question the validity of conclusions made by researchers such as Gath and Gumley, (1987), who, based on scores on behaviour rating scales completed by parents and teachers, conclude that the siblings of children with learning disabilities are at no greater risk psychologically than any other children. Of course, the findings do not serve to disconfirm this conclusion either, but do suggest that the children themselves may well have a different perspective.

Interestingly, the perception of parents that 'annoying behaviours' constitute the main disadvantage was further disconfirmed by the children's responses to the six stressor scenarios. Those scenarios that fell into the category of annoying behaviours evoked less emotion than, for example, the category of embarrassment caused by the sibling. Indeed, several children commented that all younger brothers and sisters have annoying behaviours, and that their brother or sister with learning disabilities was no different in that respect.

4.2 Additional information

4.2.1 Disadvantages of learning disabled sibling

Of the examples of disadvantages of having a sibling with learning disabilities volunteered by children, by far the most common fell into the category of 'embarrassment and/or anger caused by others'. This outweighed the categories more frequently referred to in the research literature such as 'restricts family activities', 'annoying behaviours' and 'unfair responsibilities'.

The main disadvantage cited by children differed according to whether they had a positive or negative relationship with their learning disabled sibling. Those in the positive relationship group were most

likely to choose an example in the category 'anger at other people staring', whereas those in the negative relationship group chose an example in the category 'embarrassed by sibling'. This reflects the responses to stressor scenario 4, and supports the suggestion that children with a positive relationship are not embarrassed to be seen in public with their sibling, whereas those with a negative relationship are. This is despite the fact that the learning disabled siblings in the positive relationship group were more likely to have embarrassing behaviours than those in the negative relationship group. An interesting question here is whether parental attitudes influence their children's reactions to this type of situation, and indeed their responses to stress more generally.

Although some children did use coping strategies such as problem solving, cognitive restructuring and support seeking to good effect, the root of the main problem they associate with having a learning disabled sibling appears to be the attitudes of society. These findings have implications for service provision that extend beyond any clinical interventions that might be offered to individual siblings. For example, services should perhaps target resources at educating the general public, and children more specifically. This would help to dispel some of the fears and myths that seem to exist, and may even serve to make the current transition to community care less controversial. O'Halloran, (1993), a parent of a child with learning disabilities, questions whether the main source of stress on all family members is not the devalued status of people with learning disabilities. Although the current impact of Social Role Valorisation (Wolfensberger, 1982) on service provision will hopefully go some way

towards raising the status of this group, perhaps services need to take a more active role in challenging existing beliefs.

4.2.2 Advantages of learning disabled sibling

The majority of children were able to think of at least one advantage of having a learning disabled sibling. Of the advantages that were offered, most fell into the category of 'meet more people/ go to more places'. Specific examples included being able to go on special holidays, open days at their sibling's school, and making friends that they wouldn't have met otherwise. These findings suggest that siblings are, at least to some extent, included in activities that involve their learning disabled brother or sister, and that they benefit from and enjoy such activities. Service providers should perhaps bear this in mind when organising future events, making a conscious effort to encourage siblings to attend. The category 'financial and practical help' was also well represented, with examples including free parking, washing machines and home extensions. Interestingly, Gamble & Woulbourn (1993) suggest that renovation of the family home to accommodate a child with disabilities is a potential stressor event. Although the actual building works may well be inconvenient, the children in this study appear to acknowledge that their life style had benefited directly as a result of having a brother or sister with learning disabilities.

Other advantages volunteered by children fell into the categories of 'rewarding to look after', 'get on well together', and 'more understanding as a result'. Some specific examples include "it's brilliant when you spend time with him showing him how to do something, and he gets it right", "I'm much more understanding about

other people with handicaps - I want to work with them when I'm older", and "It makes you realise how lucky you are - sad for her, but happy I can help". These reports support Crocker's (1982) contention that the benefits accrued from relationships with learning disabled siblings can include broadened perspectives and enhanced humanism. Further evidence in support of this was found by Grossman (1972) in her investigation of college students who grew up with handicapped brothers and sisters. She concludes that "in our study, about as many students seem to have benefited as were harmed." These benefits included increased understanding of other people, more tolerance and compassion, and greater appreciation of their own good health and intelligence. Similarly, Featherstone (1980) reports instances of increased acceptance of human difference, a less casual acceptance of good health and positive feelings about having assisted in the growth and progress of the disabled child.

These findings are in keeping with a philosophy described as 'cognitive coping', (Turnball et al., 1993) which is currently gaining momentum in the United States. This challenges the 'pathological' approach towards disabilities adopted by researchers and service providers in the past, and involves the process of choosing a positive attitude in response to a given set of circumstances. This includes finding meaning in an otherwise negative event, regaining mastery or control following the negative event, perceiving that the impact of the event has ultimately been small, or perceiving that one has eventually profited from it (Behr & Murphy, 1993). Within this context, Meyer (1993) proposes that siblings have much to teach service providers, and each other if they are given a chance. He goes on to describe how brothers and sisters frequently express pride in their sibling's

accomplishments and view their sibling in terms of what they can do, that is, in terms of their abilities and not their disabilities. Rather than regarding such reports as evidence of denial or rationalisation, researchers and service providers could learn useful lessons from such a positive adaptation to stress (Turnball et al.,1993).

4.2.3 Is talking to other siblings a good idea?

Most children thought that talking to other siblings of children with learning disabilities was either a good idea or an okay idea. However, few had had the opportunity, and none had attended a group set up specifically for this purpose. The children offered a variety of reasons as to the relative merits of talking with other brothers and sisters. By far the most common was 'because we have experiences in common', followed by 'it helps to talk to someone'. Indeed, one child commented that even just taking part in the study had helped. She said "it has made me realise that other children have the same problems as me, and I'm not an alien after all".

Comments like this reflect the findings of a recent report by Atkinson and Crawforth (1995) for NCH Action for Children. Following the success of a couple of pilot sibling support groups, the report calls for service providers to give a higher priority to these 'forgotten' family members. Similar moves are afoot in America, with traditionally under-served family members (including siblings, fathers and grandparents) increasingly being offered programmes designed specifically for them (Meyer, 1993). The goals for siblings include peer support (meeting and sharing experiences with other siblings), education (learning about how other siblings cope with their experiences, finding out about other disabilities), and recreation

(having fun together). The present study goes some way towards ensuring that service providers have an insight into the different ways children cope, and the strategies that are associated with a positive sibling relationship. The importance of the last goal, however, should not be underestimated. This was highlighted by the comment one child in the study made that she 'wouldn't want to be lumbered with other peoples problems all the time'. Indeed, the NCH report refers to the benefits of weekends away, when the children can escape their responsibilities, and feel 'special' in their own right.

4.3 Methodological considerations

Perhaps the main methodological problem, and one which limits the conclusions that can be drawn from the study, is the small number of participants. In addition to reducing the reliability of statistical techniques such as Chi Square, such a small sample size meant that most of the results had to be interpreted with extreme caution, and some were rendered completely useless. For example, the Kidscope was used to measure the coping responses between the groups in relation to a self-generated stressor. However, the children generated such a wide variety of stressors that any comparison of their responses proved meaningless. The study by Spirito et al., (1991) which employed the same technique, used a sample size of 667 in order to generate meaningful results. Given that this was not feasible, a more appropriate use of the Kidscope would have been to ask the children to complete it in response the standard stressor scenarios.

The main reason for the small number of participants was a difficulty in recruiting families into the study. This was anticipated to be a major hurdle, and so considerable thought was given to the letter

inviting families to take part (Appendix I). Given that no formal records of family constellation are held, distribution of these letters and the accompanying questionnaires relied on the willingness of professionals working with learning disabled children to forward them to the families who met the criteria for inclusion. Staff who visited the homes regularly (e.g. community nurses) were able to do this in person, and because they knew the approximate ages of the siblings, could target families appropriately. Teachers and voluntary agencies, on the other hand, did not necessarily know if siblings were older or younger, and so tended to distribute the questionnaires with less discrimination. Furthermore, they were often sent by post rather than delivered in person. Consequently, it is not possible to tell whether response rates were low because the families did not wish to participate in the study, or because the siblings in the targeted families did not meet the criteria for inclusion in the study, or because parents simply forgot that they had received the questionnaires in the first place.

The tight criteria for inclusion in the study may well have been a factor in the low response rate. Targeting children aged between nine and 14, with a younger brother or sister with learning disabilities served the purpose of restricting the variability in the groups (e.g. controlling for birth order effects), and meant that the same semi-structured questionnaire could be understood with ease by all participants. However, it severely limited the number of families who could be included in the study, even before a willingness to take part had been ascertained. An alternative strategy might have been to forward questionnaires to all families of children with learning disabilities, deciding on the inclusion criteria once a sample of willing

participants existed. In addition to attracting a greater number of participants, this would have allowed for a more careful matching of the groups.

Although the groups were matched on a number of factors, there were a number of potential confounding variables that the present study did not take into consideration. Demographic factors which have been addressed by previous research include socio-economic status, gender differences, and degree of learning disability. Given that these studies have failed to prove conclusively the influence of any of these factors on sibling relationships, it was felt that their exclusion was justified. However, several studies have demonstrated developmental differences in coping strategies (refer to 1.1.1 for discussion). Although there were no significant differences between the mean ages of the groups, it is inevitable that there were differences between the nine and 14 year old children in their response to stressors by virtue of their age alone. Indeed, the potential influences on sibling relationships, psychological adjustment and coping are endless, and it would be an impossible task to even begin to take them into consideration in one study. Future investigations might address questions such as the role on stress and coping of parental attitudes, personality characteristics, and the extent to which input from service providers has an impact on the sibling relationship.

In addition to allowing a greater number of variables to be taken into consideration, a larger sample size might also serve to magnify the polarisation between the positive relationship and negative relationship groups. In the present study, the total scores on the Sibling Inventory of Behaviour ranged from 113 to 132 for the positive

-113-

relationship group, and 71 to 103 for the negative relationship group. Therefore, although there were significant differences between the mean scores for the two groups, there was only a ten point difference between the child who scored lowest in the positive relationship group, and the child who scored highest in the negative relationship group. Indeed, the completed questionnaires for the two groups did not read like two extreme ends of a continuum. Rather, the groups seemed to represent children who got on extremely well with their learning disabled sibling, and children who experienced some difficulties, but generally also got on quite well.

Although this lack of extreme scores might well reflect the fact that few children have a very negative relationship with their learning disabled sibling, an alternative explanation may lie in a sampling bias. It is possible that only parents whose children have a reasonably good relationship with their learning disabled sibling were prepared to come forward to take part in the study. Regardless of the explanation, the two groups of participants who did take part served to generate significantly different responses. This suggests that the findings would have been more dramatic had the groups been more extreme. As mentioned previously, this may have proved particularly relevant in relation to the measures of psychological adjustment (i.e. scores on the depression and anxiety scales).

4.4 Directions for future research

Specific directions for future research have been alluded to in the above discussion. At a more general level, the fact that a small scale study has found support for the hypotheses implies that stress and coping in siblings of children with learning disabilities merits further

investigation. The first step might be to repeat this study using a larger sample, and controlling for some of the additional variables mentioned above. This would hopefully provide more conclusive confirmation of the findings.

The present study employed stressor scenarios that were generated in a study by Gamble (1986), which investigated stress and coping in siblings with and without learning disabled siblings. It would have been more appropriate to employ stressor scenarios that are more specific to the experiences of siblings of children with learning disabilities. The recently published report from NCH Action for Children (1995) provides some suggestions. For example, disruption to family outings, disrupted meal times, disrupted sleep, bullying and teasing and public attitudes. Indeed, these stressors are more in keeping with those that were volunteered by the children in the present study.

A second step, some would argue, might be to include a matched control group of children with non-learning disabled siblings, in order to clarify whether the siblings of children with learning disabilities are indeed more at risk psychologically than their contemporaries. However, one of the most striking findings of this study has been the individual responses of different children when faced with the same set of circumstances. This suggests that the important question is what children attribute to be the source of their stress and not whether they are any worse or better off than anyone else.

A further step would be to design, implement and evaluate sibling intervention programmes. The present study clearly demonstrated that

children, regardless of the nature of the sibling relationship, have an interest in sharing their experiences with others in a similar position. The need for sibling intervention programmes is supported by the findings of the recent report from NCH Action for Children (1995). The findings of the present study offer some guidance as to what such intervention programmes might include. For example, it provides an insight into the issues faced by these children. Furthermore, it illustrates that there are a number of ways of coping with the stressors that arise, and that although some may prove more adaptive than others, this depends on the needs and circumstances of individual children. Indeed, children need to be facilitated to generate their own solutions to their own problems. It is therefore important to include children who get on well with their learning disabled siblings as well as those who have problems, so that they can exchange ideas and learn from each other.

4.5 Summary and conclusions

In conclusion, the hypotheses proposed at the beginning of the study have, to a large extent, been supported. An association was found between satisfaction with the sibling relationship and depression in particular. Those children who have a more positive relationship with their learning disabled sibling were found to have different appraisals and employ different coping strategies in response to stressors than those with a negative relationship. Children's satisfaction with the sibling relationship remained relatively stable, and although there was some variety in the coping strategies they employed over time, this was in keeping with what would be expected for a process measure. Parent's were able to judge the nature of the sibling relationship with relative accuracy. However, they were found to have limited insight

into the specific stressors faced by their children as a result of having a sibling with learning disabilities.

The findings support the need for sibling intervention programmes, and provide some guidance as to the format such schemes might take. However, perhaps the most striking finding is that many of the stressors cited by children are attributable not to the child with learning disabilities, but to the attitudes of the general public. This finding is supported by the conclusions of a recent report from NCH Action for Children (1995). In addition to sibling intervention programmes, they call for a programme of disability awareness education, in order to increase awareness of disability, combat discrimination and promote increased understanding and acceptance.

The considerable variety in the nature of sibling relationships demonstrated in the present study explains, in part, the inconsistent findings of previous research in the field. It also supports the proposals of authors such as Turnball et al. (1993). They suggest that rather than adopting a frame work of assumed pathology, researchers and service providers need to acknowledge the positive adaptation that many children and their families make. Indeed, although some children did appear to have more positive relationships than others, all had a great deal of love and affection for their brother or sister. Furthermore, many felt they had benefited from the experience of having a sibling with learning disabilities in the family.

APPENDIX I

Dear Parent,

I am a psychologist working for the NHS in Bristol. I am writing to ask of you will help me with my research project. It's about the problems experienced by children who have brothers or sisters with severe learning disabilities (sometimes called Mental Handicap).

Please read this letter and then decide whether or not you would like to help. If you would, simply fill in the questionnaire and return it to me in the stamped and addressed envelope provided. Everything is completely voluntary, and no names will be used in my report.

Many parents worry about the children in their family who are not disabled. They feel that they might 'miss out', or 'get put on', or that 'too much is expected of them'. They may even be teased.

But having a brother or sister who has learning disabilities doesn't always cause problems. Lots of children cope with it very well. Others even benefit and develop from it. Through my research I hope to learn lessons from those children who don't experience many problems, as well as those who do. By finding out how children cope well, I hope to learn how to help those who do find life difficult.

The study will concentrate on children aged between 9 and 14, who have a younger brother or sister with learning disabilities. To begin with I would like the parents opinion of how the older child gets in with his or her younger brother or sister. In many cases this is the only information that I require. If I don't get in touch with you after you have sent me the information, thank-you very much for your help. I will send you a summary of my findings.

In some cases I would like to contact you and talk to your children at home. This is to find out how they cope with having a brother or a sister who has learning disabilities. The conversation with your child will last about an hour. I would like to come back after four months for a similar talk. Some of these meetings will need to be taped so that I can study them, and gain as much information as possible. Your child can, of course, drop out of the study at any stage.

If you or your child have any concerns or queries, please give me a ring on Cardiff 0222 ------ or via Kay Hughes at Phoenix NHS Trust on Bristol 0272 ------. If I do not get in contact, thank-you again for your help. Otherwise, I will be in touch soon to arrange a time to visit you and your child.

Thanks in advance for your very kind support.

Liz Gregory
Psychologist.

This project is to be supervised by Kay Hughes, a Principal Clinical Psychologist with Phoenix NHS Trust. It contributes towards a Doctoral degree in Clinical Psychology, and has the support of the Clinical Teaching Unit at Plymouth University. It has been approved by Southmead Medical Ethics Committee. The University may request audio tapes to be kept in storage for a period of 5 years, after which they will then be destroyed.

If you have a child between the ages of 9 and 14 who has a younger brother or sister with severe learning disabilities, and both you and your child are willing to participate in the project, please complete the following information sheet, and the questionnaire attached.

Information Sheet

Surname:

Address:

Day time telephone number:
Evening telephone number:

CHILD IDENTIFIED FOR PROJECT: (please check with child first)

Name:

Date of birth:

School attended:

CHILD WITH LEARNING DISABILITIES:

Name:

Date of birth:

School attended:

OTHER FAMILY MEMBERS:
(include parents, other brothers and sisters, and anyone else living at home).

Name:	Name:
Date of birth:	Date of birth:
Relationship:	Relationship:
Name:	Name:
Date of birth:	Date of birth:
Relationship:	Relationship:
Name:	Name:
Date of birth:	Date of birth:
Relationship:	Relationship:

Please continue overleaf if necessary

Questionnaire

Please circle the numbers that show how often your older child behaves towards the younger child with learning disabilities in the way described:

1 = Never, 2 = Hardly ever, 3 = Sometimes, 4 = Often, 5 = Always

	N	H	S	O	A
1 Is pleased by the progress he/she makes	1	2	3	4	5
2 Shows or tells him/her interesting things	1	2	3	4	5
3 Teases or annoys him/her	1	2	3	4	5
4 Helps him/her in any way possible	1	2	3	4	5
5 Gets angry with him/her	1	2	3	4	5
6 Accepts him/her as a playmate	1	2	3	4	5
7 Embarrassed to be with him/her in public	1	2	3	4	5
8 Wants him/her to succeed	1	2	3	4	5
9 Keeps out of his/her way if possible	1	2	3	4	5
10 Has ideas they can do together	1	2	3	4	5
11 Does things to please him/her	1	2	3	4	5
12 Interferes and argues with him/her	1	2	3	4	5
13 Has fun at home with him/her	1	2	3	4	5
14 Acts ashamed of him/her	1	2	3	4	5
15 Is sympathetic when things are hard	1	2	3	4	5
16 Sulks when he/she has to be with him/her	1	2	3	4	5
17 Teaches him/her new skills	1	2	3	4	5
18 Says unkind things to him/her	1	2	3	4	5
19 Helps him/her adjust to new situations	1	2	3	4	5
20 Treats him/her as a good friend	1	2	3	4	5
21 Tries to avoid being seen with him/her	1	2	3	4	5

1 = Never, 2 = Hardly ever, 3 = Sometimes, 4 = Often, 5 = Always

22 Is concerned for his/her welfare and happiness   1 2 3 4 5

23 Would rather be alone than play with him/her   1 2 3 4 5

24 Makes plans that include him/her   1 2 3 4 5

25 Hurts his/her feelings   1 2 3 4 5

---

26 Tries to comfort him/her when he/she is upset   1 2 3 4 5

27 Complains that he/she causes problems   1 2 3 4 5

28 Is glad to have him/her in the family   1 2 3 4 5

Additional Information:
Feel free to use the space below to add any further comments you might have. Please return completed questionnaires in the stamped addressed envelope provided. For some, this is the only information required. If I do not get in touch again, thank-you very much for your help. Otherwise, I will be in contact soon to arrange a convenient time to visit you and your child. Again, many thanks for your co-operation.

APPENDIX II

Child's name:　　　　　　Age:

Sibling's name:　　　　　Age:

Part 1

I am Liz and I am a psychologist studying for a course, which means that I have to do a project. My project is about the brother and sisters of children with disabilities. Let me tell you what I would like you to do, and then you can decide if you want to take part in the project.

I plan to talk to lots of boys/girls/younger people who have younger brothers or sisters with disabilities. Grown-ups have lots of ideas about what it might be like, but I want to find out from the children/young people themselves what it's really like. I want children to be as honest about their feelings as they can - which may mean saying things that are hard to say in front of your mum or dad, or brother or sister. When my project is finished I will write a report. No names will be mentioned, and no-one will know who has said what about their brothers and sisters.

The only time when I will let someone else know is if I hear something that makes me worried, or if I think that somebody might come to harm, or if I think somebody needs a bit of help. If I do think any of these things I will speak to you first before telling anyone else. Are you still happy to help me - the interview will probably take about an hour of your time?

Thank-you for agreeing to help - I just need to get you to sign this form. This bit says that you are happy to talk with me today. This bit here says that you are happy for our conversation to be taped (10 participants only, chosen at random).

There are lots of words used to describe children like your brother/sister, for example, children with learning difficulties, learning disabilities, mental handicap and special needs. What term do you and your family like to use? (Use this term throughout the interview).

Please remember that there are no right or wrong answers to any of the questions. What I want most of all is for you to answer them as honestly as possible.

Part 11

First of all I want to ask you some questions about how you get on with (sib's name). I want you to think about how you have felt over the last couple of months.

1 Have you been (show cue card - reverse order for half):

very unhappy　　quite unhappy　　okay　　quite happy　　very happy

about how much time you've spent with (sib's name)?

2 Have you been

very unhappy   quite unhappy   okay   quite happy   very happy

about how much time you've spent looking after (sib's name)?

3 Have you been

very unhappy   quite unhappy   okay   quite happy   very happy

about how you and (sib's name) have got along together?

4 Have you been

very unhappy   quite unhappy   okay   quite happy   very happy

about how your mum and dad treat you compared with how they treat (sib's name)?

5 Have you been

very unhappy   quite unhappy   okay   quite happy   very happy

about how much attention your mum and dad give you compared with how much they give (sib's name)?

6 Have you been

very unhappy   quite unhappy   okay   quite happy   very happy

overall about being the brother/sister or (sib's name)?

Part 111

Now I want you to try and think of some good things about having a brother/sister with learning disabilities. It might be easier to think of examples that have happened over the last couple of months (record descriptions verbatim).

1.   2.   3.

Part 1V

Now I'd like you to think of some of the hard things about having a brother/sister with learning disabilities. Can you think of some things that upset you, make you worried or angry, or that cause a problem for you. This could be something that (sib's name) did, something that happened to (sib's name), or something that happened to you because of (sib's name). Again, it might be easier to think of examples that have happened over the last couple of months. Can you tell me about something that causes you the most problems first (record descriptions verbatim).

1.

2.

3.

(If the child cannot think of stressful situations prompt as follows: You can tell me about something you did that made (sib's name) unhappy, or something (sib's name) did that made you unhappy. Or you could tell me about something your parents asked you to do with (sib's name) or got angry with you about (sib's name). If you were just thinking about some things that had to do with (sib's name) and that made you unhappy or angry you can tell me about that too.

Now I'd like you to think about (stressful situation 1 - repeat back the child's description of the situation).
Show cue card - reverse order for half of participants

1. Did it make you nervous or worried?

Not at all   A little   Quite a bit   Quite a lot   Very much

2. Did it make you sad or upset?

Not at all   A little   Quite a bit   Quite a lot   Very much

3. Did it make you angry?

Not at all   A little   Quite a bit   Quite a lot   Very much

Now please use this sheet and circle whether you used any of the following ways to help deal with this problem (give child the Kidscope to complete).

Part V

Now I'm going to give some examples of some of the things other children/young people find difficult about having a brother or sister with learning disabilities. I'd like to know if some of these things have happened to you, and how you would deal with them if they did.

1. Some children say that their brother or sister with learning disabilities goes into their room and/or takes their things without their permission. Has this ever happened to you? Can you describe the most recent time?

I'm going to give and example - you have recently bought a new (pick appropriate toy e.g. doll, car, poster etc.) having saved up your pocket money for a long time. You keep it in your bedroom out of harms way. While you are out, (sib's name) has managed to get hold

of it and has broken it. Can you answer these questions as though this has just happened to you?

Appraisals:

Is this something you could
1. do a lot   2. do a little   3. do almost nothing about?

Is this the sort of thing that happens
1. a lot   2. sometimes   3. hardly ever?

How much of a problem would it be
1. a big   2. a medium   3. a little problem?

Coping responses:

Now I'd like you to tell me what you would do about the situation.

Would this help?

How would this help?

What would you be thinking about the situation?

Would this help?

How would this help?

What would you be feeling about the situation?

Would this help?

How would this help?

(Change the order of questions so that it is not always behaviour, cognition, emotion).

2. Some children say that their brother or sister with learning disabilities annoys them, teases them and gets of their nerves. Has this ever happened to you? Can you describe the most recent time?

I'm going to give and example - you have been given some homework that needs to be in tomorrow, and you are sat at the kitchen table trying to get on with it. (Sib's name) keeps annoying you by poking you in the side, knocking your books off the table and calling you names. Can you answer these questions as though this has just happened to you?

Appraisals:

Is this something you could
1. do a lot   2. do a little   3. do almost nothing about?

Is this the sort of thing that happens
1. a lot   2. sometimes   3. hardly ever?

How much of a problem would it be
1. a big   2. a medium   3. a little problem?

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Coping responses:

Now I'd like you to tell me what you would do about the situation.

Would this help?

How would this help?

What would you be thinking about the situation?

Would this help?

How would this help?

What would you be feeling about the situation?

Would this help?

How would this help?

(Change the order of questions so that it is not always behaviour, cognition, emotion).

3. Some children say that their brother or sister with learning disabilities has some funny behaviours, and although they are used to these at home, they can be embarrassing when they go out, or have friends round. Has this ever happened to you? Can you describe the most recent time?

I'm going to give you an example – you and your family are at your school sports day and suddenly (sib's name) joins in a race that he or she is not meant to. Some people are laughing, others are angry that he or she has spoilt the race. Can you answer these questions as though this has just happened to you?

If the sibling is not mobile, an alternative example might be that he or she starts slapping his or her head, and screams very loudly. Or, in a shop, he or she pulls things off the shelf from their buggy.

Appraisals:

Is this something you could
1. do a lot   2. do a little   3. do almost nothing about?

Is this the sort of thing that happens
1. a lot   2. sometimes   3. hardly ever?

How much of a problem would it be
1. a big   2. a medium   3. a little problem?

Coping responses:

Now I'd like you to tell me what you would do about the situation.

Would this help?

How would this help?
What would you be thinking about the situation?

Would this help?

How would this help?

What would you be feeling about the situation?

Would this help?

How would this help?

(Change the order of questions so that it is not always behaviour, cognition, emotion).

4. Some children find that they have to baby-sit, clean up after or help their brother or sister with learning disabilities when they don't really want to. Has this ever happened to you? Describe the most recent time.

I'm going to give you an example - your friends are meeting at a certain place, at a certain time and you don't want to miss out on being with them. Your mum has asked to help (sib's name) clear up the toys that he/she has been playing with all day. You're not allowed out until they are all cleared away, and you are worried that you will miss your friends. Can you answer these questions as though this has just happened to you?

Appraisals:

Is this something you could
1. do a lot   2. do a little   3. do almost nothing about?

Is this the sort of thing that happens
1. a lot   2. sometimes   3. hardly ever?

How much of a problem would it be
1. a big   2. a medium   3. a little problem?

Coping responses:

Now I'd like you to tell me what you would do about the situation.

Would this help?

How would this help?

What would you be thinking about the situation?

Would this help?

How would this help?

What would you be feeling about the situation?

Would this help?

How would this help?

(Change the order of questions so that it is not always behaviour, cognition, emotion).

5. Some children find that their brother or sister with learning disabilities hits, kicks or shoves them really hard. Has this ever happened to you? Can you describe the most recent time?

I'm going to give you an example – you and (sib's name) are sitting together watching T.V. (Sib's name) wants a different channel on, but you want to carry on watching the programme that is on. (Sib's name) comes up to you and punches you really hard, then starts kicking your legs (amend if sib is not mobile). It really hurts. Can you answer these questions as though this has just happened to you?

Appraisals:

Is this something you could
1. do a lot   2. do a little   3. do almost nothing about?

Is this the sort of thing that happens
1. a lot   2. sometimes   3. hardly ever?

How much of a problem would it be
1. a big   2. a medium   3. a little problem?

Coping responses:

Now I'd like you to tell me what you would do about the situation.

Would this help?

How would this help?

What would you be thinking about the situation?

Would this help?

How would this help?

What would you be feeling about the situation?

Would this help?

How would this help?

(Change the order of questions so that it is not always behaviour, cognition, emotion).

6. Some children get worried and upset because sometimes their brother or sister with learning disabilities gets very ill, or hurts themselves. Is this something that has ever happened to you? Can you describe the most recent time?

I'm going to give you an example – suddenly (sib's name) becomes very ill. He/she has to go into hospital and everyone is very worried. Can you answer these questions as though this has just happened to you?

Appraisals:

Is this something you could
1. do a lot   2. do a little   3. do almost nothing about?

Is this the sort of thing that happens
1. a lot   2. sometimes   3. hardly ever?

How much of a problem would it be
1. a big   2. a medium   3. a little problem?

Coping responses:

Now I'd like you to tell me what you would do about the situation.

Would this help?

How would this help?

What would you be thinking about the situation?

Would this help?

How would this help?

What would you be feeling about the situation?

Would this help?

How would this help?

(Change the order of questions so that it is not always behaviour, cognition, emotion).

Part Vl

I would like you to fill out two questionnaires for me. You can either read through them and do them for yourself, or I can read them out and fill in your answers for you. These are about you, and nothing to do with (sib's name). Administer depression and anxiety scales.

Part Vll

That's all the questions I wanted to ask about (sib's name). Now I want to find out a bit about you.

What was it like having to answer all these questions

very easy   easy   okay   quite hard   very hard?

Would you mind if I came back in a few months time to ask some more questions? You don't have to decide now, and you can always change your mind nearer the time.

Yes   No

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Do you think that talking to other children who have brothers or sisters with learning disabilities is

a bad idea?   an okay idea?   a good idea?

Can you say why?

General wind down questions - amend according to child's needs

What school do you go to?

Do you like it there?

Is that where your friends go?

Do you have any hobbies?

What do you plan to do with the rest of the day?

That's the end of the interview now. I've spent a lot of time asking you questions - is there anything you want to ask me?

Well, thank-you very much for your time. As I said at the beginning, I wont tell anyone what you have said unless you want me to. Is there anything you would like me to say to your mum/dad about what we have discussed? Or is there anything about what we have talked about today that you would like to speak to me a bit more about? If you can't think of anything at the moment, but think of something you would like to speak to me about another time, here is my telephone number. I will tell your mum/dad that you have it, and that you might want to speak to me in private. Remember to ask them first before using the phone, or I'll be in trouble!

Thank-you again for all your help, and I might see you again in a few months.

Name: Date:

Situation:

		Did you do this?		How much did it help?		
1.	I just tried to forget it	Yes No		Not at all	a little	a lot
2.	Did something like watch T.V. or played a game to forget it	Yes No		Not at all	a little	a lot
3.	I stayed by myself	Yes No		Not at all	a little	a lot
4.	I kept quiet aobut it	Yes No		Not at all	a little	a lot
5.	I tried to see the good side of it	Yes No		Not at all	a little	a lot
6.	I blamed myself for causing the problem	Yes No		Not at all	a little	a lot
7.	I blamed someone else for causing the problem	Yes No		Not at all	a little	a lot
8.	I tried to solve the problem by thinking of answers	Yes No		Not at all	a little	a lot
9.	I tried to solve the problem by doing something or talking to someone	Yes No		Not at all	a little	a lot
10.	I shouted, screamed or got angry	Yes No		Not at all	a little	a lot
11.	I tried to calm myself down	Yes No		Not at all	a little	a lot
12.	I wished the problem had never happened	Yes No		Not at all	a little	a lot
13.	I wished I could make things different	Yes No		Not at all	a little	a lot
14.	I tried to feel by better by spending time with others like family, grown ups or friends	Yes No		Not at all	a little	a lot
15.	I didn't do anything because nothing could solve the problem	Yes No		Not at all	a little	a lot

Name: Date:

	Most of the time	Sometimes	Never
1. I look forward to things as much as I used to	. . . .	. . . .	. . . .
2. I sleep very well	. . . .	. . . .	. . . .
3. I feel like crying	. . . .	. . . .	. . . .
4. I like to be with friends	. . . .	. . . .	. . . .
5. I feel like running away	. . . .	. . . .	. . . .
6. I get tummy aches	. . . .	. . . .	. . . .
7. I have lots of energy	. . . .	. . . .	. . . .
8. I enjoy my food	. . . .	. . . .	. . . .
9. I can stick up for myself	. . . .	. . . .	. . . .
10. I think life isn't worth living	. . . .	. . . .	. . . .
11. I am good at things I do	. . . .	. . . .	. . . .
12. I enjoy the things I do as much as I used to	. . . .	. . . .	. . . .
13. I like talking with my family	. . . .	. . . .	. . . .
14. I have horrible dreams	. . . .	. . . .	. . . .
15. I feel very lonely	. . . .	. . . .	. . . .
16. I am easily cheered up	. . . .	. . . .	. . . .
17. I feel so sad I can hardly stand it	. . . .	. . . .	. . . .
18. I feel very bored	. . . .	. . . .	. . . .

Please answer as honestly as you can. The statements refer to how you have felt over the past week. There are no right or wrong answers, it is important to say how you have felt. Thanks.

Trait anxiety scale not shown for copy right purposes

APPENDIX III

Parent's Questionnaire:

Please answer the following questions based on your observations of your older child towards your child with learning disabilities.

Please list three things that you think your child finds hard about having a brother or sister with learning disabilities. These might be things that upset him or her, make him or her worried or angry, or cause a problem for him or her. It could be something that their brother or sister does, or something that happens to them because of their brother or sister. It might be easier to think of examples that have happened over the last couple of months:

1.

2.

3.

Now please use the sheet overleaf and circle whether your child uses any of the following ways to help deal with the difficulty they find hardest. Try to put yourself in your child's position and answer as if you were them.

Thank-you!

Name: Date:

Situation:

		Did you do this?	How much did it help?		
1. I just tried to forget it		Yes No	Not at all	a little	a lot
2. Did something like watch T.V. or played a game to forget it		Yes No	Not at all	a little	a lot
3. I stayed by myself		Yes No	Not at all	a little	a lot
4. I kept quiet aobut it		Yes No	Not at all	a little	a lot
5. I tried to see the good side of it		Yes No	Not at all	a little	a lot
6. I blamed myself for causing the problem		Yes No	Not at all	a little	a lot
7. I blamed someone else for causing the problem		Yes No	Not at all	a little	a lot
8. I tried to solve the problem by thinking of answers		Yes No	Not at all	a little	a lot
9. I tried to solve the problem by doing something or talking to someone		Yes No	Not at all	a little	a lot
10. I shouted, screamed or got angry		Yes No	Not at all	a little	a lot
11. I tried to calm myself down		Yes No	Not at all	a little	a lot
12. I wished the problem had never happened		Yes No	Not at all	a little	a lot
13. I wished I could make things different		Yes No	Not at all	a little	a lot
14. I tried to feel by better by spending time with others like family, grown ups or friends		Yes No	Not at all	a little	a lot
15. I didn't do anything because nothing could solve the problem		Yes No	Not at all	a little	a lot

APPENDIX IV

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Instructions to coders:

Read each child's response in full, then classify according to the following categories:

Coping Responses

Focus
Is the child's response directed towards the

a) Self (coded 1)

The child's response is directed at his or her own action or subjective emotion, examples would include 'sit and worry', 'start laughing', 'walk up and down waiting', 'get sympathy from mum'.

b) Environment (coded 2)

The child's response is directed towards things or people in the environment, examples would include 'grab him and sit down', 'go in the ambulance with her, give details, sit with her', 'tell her to get out of the room'.

c) Other (coded 3)

This code is used when the child does nothing to cope but is rescued by someone in the environment. It reflects instances where the child is acted upon by the environment, examples include 'my mum usually comes in and puts him in his chair'.

Function
Is the function of the behaviour:

a) Problem Solving (coded 1)

Problem Solving coping is problem focused and instrumental. The function of the response is to change the problematic situation either by changing ones own behaviour or action (focus on self) or by changing the damaging or threatening environment (focus on environment). Examples include 'tell him to wash it off', 'hold his legs and get out of the way', 'I'd go somewhere else to do it and close the door', 'tell her to get out of the room'.

b) Emotion Management (coded 2)

Emotion Management coping is palliative in nature. The function of this type of behaviour is to manage somatic, subjective and affective components of stress related experiences. Examples include 'cry to get it out of my system', 'start laughing to try to make a joke of it', 'go mad, shout and scream', and 'go in the ambulance with her to stop me going really wild'.

Mode
The mode of the response can take one of several forms:

a) Support Seeking (coded 1)

This is coded when the child enlists the help of someone else to deal with the problem. Examples include 'tell mum that David made the

mess and that I shouldn't have to do it', 'say Kevin! and then tell mum', and 'get sympathy from mum'.

b) Cognitive Restructuring (coded 2)

This is coded when the child takes steps to try to look on the positive side, or to reinterpret the situation in such a way that it is not a problem. Examples include 'he can't help it, it's not that big a problem', 'I'd think it was hilarious which would help to diffuse the situation', and 'make a joke of it'.

c) Direct Action (coded 3)

This refers to any direct action the child takes to handle the situation. Where the goal is involvement or the assistance of another person, Support Seeking rather than Direct Action is coded. Examples included 'take the book away and tell her she was naughty', 'just chuck the toys in any old box', and 'stomp around, pick up the toys and chuck them - but kind of tidy up'.

d) Intrapsychic (coded 4)

This refers to responses that are cognitive or internal, but are not attempts to redefine the situation in a more positive light. Examples include 'go upstairs and cry - its better to cry than to keep it in', 'think why can't dad stay calm, he needs to be calm', 'sit and worry and think is she going to be okay?' and 'tell him to go away, which wouldn't help because he never listens, think I'm never going to get this done' (although in this example the child has attempted a direct action, he believes this would fail and so the coping mode is primarily intrapsychic).

e) Acting Out (coded 5)

This refers to responses that are aggressive in nature and do not serve the purpose of changing the situation. Examples include 'go mad, shout and scream', 'smack him one', and 'hitting David and screaming at him'. 'Smack him because he needs to learn it is wrong' would be coded under Direct Action.

Assessment of Response

Affect
This refers to the amount of emotion the child expresses in relation to each situation.

a) Neutral (coded 1)

This refers to children who have a neutral reaction to the problem. Examples include 'calm', 'not bothered', 'okay'. Also coded in this way are emotions such as 'happy' in response to situations presented as potentially problematic.

b) Mild (coded 2)

This refers to children who express a mild amount of the appropriate emotion in response to the situations. Examples include 'quite annoyed', 'a bit embarrassed' and 'a little worried'.

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c) Moderate (coded 3)

This is coded when the child responds with a clearly descriptive emotion. Examples include 'angry', 'embarrasses', 'very upset' and 'sad'.

Adaptiveness
This refers to how you would judge the child's response to a particular situation.

a) Positive (coded 1)

This is coded when the child handles the situation in a positive way by either taking steps to solve the problem, to limit the damage or to reduce the amount of stress they experience, or reinterpret the situation in a more positive light.

b) Negative (coded 2)

This is coded when the child handles the situation in a negative way, either by making the problem worse, increasing the amount of stress they experience, interpreting the situation in a negative light or acting out.

c) Neutral (coded 0)

This is coded when the child's response is neither clearly positive or negative. Please attempt to use the above categories before opting for this one.

Thank-you!

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