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Parental Perceptions of Overprotection:
Specific to anxious children or shared between siblings?

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&

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Abstract

Parents of children with anxiety disorders (n=45) and parents of non-clinical children (n=33) were interviewed regarding the rearing of two children in their family. The purpose of the study was to determine whether overprotective parenting, according to parent report, occurs specifically in the context of relationships with the anxiety disordered child or whether parents also perceive themselves to be overprotective of the anxious child’s sibling. Self-reports of overprotection in parents of anxious children were also compared to self-report of parents of non-clinical children. Mothers in the clinical group were more likely to report that they were more protective of the anxious child than they were to report being either more protective of the sibling or equally protective of both children. Both mothers and fathers in the clinical group were no more likely than non-clinical parents to perceive themselves as more protective overall than other parents.
Parental Perceptions of Overprotection:

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Results from adult twin studies of anxiety indicate a fundamental role for non-shared environmental factors in the development of anxiety disorders, while shared environmental factors (experiences common to siblings in a family) are shown to play little role (Jardine, Martin & Henderson, 1984; Kendler, Walters, Neale, Kessler, Heath, & Eaves, 1995). Some researchers have argued that these results demonstrate that parenting is not likely to be important in the development of psychopathology unless it is part of a child’s non-shared environment (Plomin & Daniels, 1987; Rowe, 1997). However, several recent twin studies have emerged examining anxiety in children and adolescents that have produced quite different results. Several of these studies have demonstrated that shared environmental factors account for a significant amount of variance in both anxiety symptoms and anxiety disorder (Edelbrock et al., 1995; Eley, 1997; Thapar & McGuffin, 1995; Topolski et al., 1997). These results suggest that experiences shared by siblings, including parenting, may play a more prominent role in the development of anxiety at a young age than previously thought.

Empirically, the parenting variable that has been most consistently linked with the anxiety disorders is overprotection or overcontrol (Rapee, 1997; Hirshfeld, Biederman, Brody, Faraone, & Rosenbaum, 1997; Hudson & Rapee, 2001; Siqueland, Kendall & Steinberg, 1996). The most convincing evidence to date comes from an observational study showing that mothers of anxious children were more involved and intrusive during a difficult cognitive task than mothers of non-clinical children (Hudson & Rapee, 2001). The question arises however, whether this style of parenting is shared by siblings in a family or whether it is specific to one child (the anxious child). One possibility is that the level of parental protection differs between children. This may occur in response to
something within the child (actually a gene effect or a gene/environment interaction) or it may be due to idiosyncratic environmental factors such as birth order (first-born children may be more protected), family stressors occurring at a particular time, or children’s illness. Alternately, overprotective parenting may be consistent across children in a family. Of course, both of these possibilities may also be true. That is, parenting may differ between families but may also differ to some extent between siblings within a family.

Some authors have hypothesised that an over-protective parenting style is a response to an inhibited, sensitive child rather than being an independent cause of the child's anxiety (e.g., Rubin & Mills, 1991). Hudson and Rapee (2004) argue that anxious parents fall into a pattern of anticipating the child's distress and hence discourage the child from approaching potentially stressful situations. The parent’s own anxiety may further exacerbate this style of parenting. Over time this pattern of response augments the child's vulnerability to anxiety by increasing the child's perception of threat and avoidance of threat as well as reducing the child's perceived control over threat. This theory suggests that overprotective parenting may differ depending on the child’s vulnerability to anxiety. Thus, based on this theory, less anxious siblings of children with anxiety disorders would receive less protection. This theory would also predict however, that children of anxious parents would be more likely to be overprotected than children of non-anxious parents.

In contrast to these predictions, Hudson and Rapee (2002) observed no significant differences in overinvolvement during parent-child interactions with clinically anxious children and their siblings. Mothers of anxious children were significantly more involved in interactions with both the anxious child and the sibling in comparison to mothers of non-clinical children. The purpose of the current study was to examine whether parental
perceptions of overprotection were consistent with results of observational measurement. Parental perceptions may differ from observational measures of behaviour for a number of reasons. Parents may be better able to report subtle differences in behaviour that are not identifiable in laboratory observations. Also, throughout the child psychology literature, evidence is increasing for the discrepancy between the reports of parents, children, teachers and clinicians (e.g., Grills & Ollendick, 2003; Yeh & Weisz, 2001). Thus, collecting data from an additional source is important for a more complete understanding of parent behaviour. The study aims to determine whether parental perceptions of overprotection are equivalent for anxious children and other children in the family.

The current study interviewed parents of anxiety-disordered children, asking a series of questions regarding two of their children: an anxiety-disordered child (the child presenting for treatment) and the child's sibling closest in age. As the research to date has focused primarily on maternal factors in the development of anxiety with less focus on the potential role of fathers, this study interviewed both mothers and fathers. The main objectives of the interview were to determine whether: i) parents perceived themselves to be more protective of one child over another, ii) parents perceived themselves to be more protective of both of the children in comparison to other parents. It was expected that a parent would perceive himself or herself to be more protective of the anxious child than the sibling of the anxious child. It was also expected that parents would report being more protective of both of their children in comparison to other parents.

Method

Participants

Biological parents of 45 children with anxiety disorders and 33 non-clinical children were included in the study. For some of these families (clinical n=11; non-
only mothers participated in the study: 10 of these families were single parent households and 11 were dual parent households in which fathers were not able to attend the research session. The children were aged between 7 and 16 years and had at least one biological sibling also aged between 7 and 16 years.

Clinical Sample. The clinical sample consisted of 45 families who had presented for treatment for one of their children at the Macquarie University Child and Adolescent Anxiety Clinic, Sydney, Australia. Post-graduate students in clinical psychology assessed the anxious children using a semi-structured clinical interview, the Anxiety Disorders Interview Schedule for DSM-IV Child and Parent Version (ADIS-IV - C/P; Silverman and Albano, 1996). Diagnoses were based on DSM-IV criteria (APA, 1994). The principal diagnoses of the anxious children were as follows: Generalised Anxiety Disorder 42.2%, Social Phobia 26.7%, Separation Anxiety Disorder 22.2%, Obsessive Compulsive Disorder 4.4%, Panic Disorder 2.2%, and Specific Phobia 2.2%. Forty percent of the children were diagnosed with more than one anxiety disorder, the most common additional diagnosis being generalised anxiety disorder. Eight children also met criteria for an additional diagnosis other than anxiety: mood disorder (n = 3), ADHD (n = 4) and Oppositional Defiant Disorder (n = 1). Of the 45 anxious children, 26 were male and 19 were female.

The biological sibling included in the study was the child closest in age to the anxious child and was selected if their age was between 7 and 16 years. The siblings were assessed using a semi-structured clinical interview with the child's parents based on the Anxiety Disorders Interview Schedule for DSM-IV Parent Version (ADIS-IV - P; Silverman and Albano, 1996). Eighty percent of siblings did not meet criteria for a DSM-IV (APA, 1994) anxiety, mood or behavior disorder. All siblings, regardless of diagnosis, were included in the study.
Non-Clinical Sample. The 33 non-clinic referred families were recruited from the community via notices in school newsletters, local newspapers and open days at the university. Non-clinical families were recruited from the same geographical area as the families in the clinic referred sample to ensure comparable socioeconomic status. Families were selected if: a) there were at least two children in the family aged between 7 and 16 years; and b) the parents had never sought treatment from a mental health professional for either of the two children. While these families completed questionnaire measures of symptomatology to ensure their normative status, no diagnostic interviews were conducted. Hence, this comparison group, rather than being a supernormal group, may have met criteria for some form of psychopathology. Nevertheless, the questionnaire measures completed indicate that they are consistent with a normative sample (See Table 1). The families were given rewards for participating in the study.

Measures

Questionnaires. Children completed the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978). The RCMAS is a 37-item self-report scale measuring chronic anxiety. The measure consists of three subscales: i) physiological anxiety; ii) worry/oversensitivity; and iii) social concerns/concentration. The scale has demonstrated adequate test-retest reliability and validity (Reynolds, 1982; Reynolds & Richmond, 1985).

Mothers completed the Child Behaviour Check-List (CBCL; Achenbach & Edelbrock, 1979), a widely used measure of behavioural problems and competencies in children and adolescents. The measure consists of 118 items including anxiety, social withdrawal, depression, obsession-compulsions, non-communicative behaviour, hyperactivity, aggression and somatic complaints. Mothers also completed two self-report questionnaires regarding symptoms of anxiety and depression: i) Beck Anxiety
Inventory (BAI; Beck, Epstein, Brown, & Steer, 1989), a 21-item measure of anxiety symptomatology; ii) Beck Depression Inventory (BDI; Beck, Ward, Mendelsohn, Mock, & Erbaugh, 1961) a 21-item measure of depressive symptomatology. The BAI and the BDI are widely used measures and have demonstrated good psychometric properties.

Procedure

Before completing the questionnaires and interviews, informed written consent from parents and verbal assent from children was obtained. Following the completion of diagnostic interviews and questionnaire measures, interviews were conducted by graduate psychology students with mothers and fathers separately. Parents were told that the study was an investigative study into the differences between siblings and the ways parents respond to their children. The children were allocated to either Child A or Child B in random order. The interview began with a discussion on the children’s similarities and differences. The purpose of the preliminary discussion was to acknowledge potential differences between children as well as enabling the parents to speak more freely in their responses to the interview questions. Following this brief discussion parents were given the following three questions:

1. Do you feel that you relate more to either child A (child's name) or child B (child's name)?
2. Do you feel you are more protective of (need to look after) either child A (child's name) or child B (child's name)?
3. In comparison to other parents do you feel you are more protective of both of the children?

The interviewer transcribed the parent's responses during the interview. A psychologist blind to the aims of the study coded the interview transcripts. For question one, the coding involved reviewing the parent’s response and identifying whether the
parent felt they related: i) more to child A; ii) more to child B; or iii) equally to both children. For question two, the coding involved identifying whether the parent reported that they were: i) more protective of child A; ii) more protective of child B; or iii) equally protective of both children. For question three, the coding involved identifying whether the parent reported that they were: i) more protective than other parents; ii) not more protective than other parents.

Results

Descriptive Measures

There were no differences in mean age between anxious children and non-clinical children, \( t(76) = -0.10, p > .05 \) (Anxious \( M = 133 \) months, \( SD = 25 \) months; Non-clinical \( M = 133 \) months \( SD = 21 \) months). There were also no differences in mean age between the siblings of anxious children and the non-clinical children \( t(76) = -0.68, p > .05 \) (Siblings \( M = 129 \) months, \( SD = 32 \) months). The mean age of anxious children and their siblings also did not differ, \( t(44) = 0.76, p > .05 \). The gender of the sibling pairs did not differ between the clinical and non-clinical groups \( \chi^2 (2, N = 77) = 1.94, p > .05 \) (Clinical, 24% female sibs, 40% male sibs, 36% female-male sibs; Non-clinical, 28% female sibs, 25% male sibs, 47% female-male sibs).

The mean scores for both the parent and child questionnaires for the clinical and non-clinical groups appear in Table 1. Examination of the differences between the questionnaire measures of non-clinical siblings were not of interest to this study, hence scores were averaged across siblings. Comparisons were then carried out using a series of \( t \)-tests between i) the anxious child and the averaged score obtained for the non-clinical children and ii) the sibling of the anxious child and the averaged score for the non-clinical children. Comparisons were also carried out using a series of paired \( t \)-tests between the anxious children and their siblings. A Bonferroni correction was used to adjust for
inflation of the Type I error rate (critical alpha = .05 / 3 = .017). Differences between anxious and non-clinical children were evident on the RCMAS, \( t(74) = 7.05, p < .017 \), the CBCL-Internalising, \( t(74) = 11.91, p < .017 \) and the CBCL-Externalising \( t(74) = 3.44, p < .017 \). No differences between anxious and non-clinical children were evident on the CDI, \( t(74) = 1.59, p > .017 \). Siblings of anxious children did not differ from the non-clinical children on the following questionnaire measures: CDI, \( t(74) = -1.69, p > .017 \); CBCL-Internalising, \( t(74) = 1.32, p > .017 \); CBCL-Externalising \( t(74) = 1.60, p > .017 \). However, siblings of anxious children scored significantly higher on the RCMAS than non-clinical children, \( t(74) = 2.69, p < .017 \). Anxious children scored significantly higher than their siblings on the RCMAS, \( t(43) = 2.95, p < .017 \), the CDI, \( t(42) = 3.69, p < .017 \), the CBCL-Internalising, \( t(40) = 9.63, p < .017 \) and the CBCL-Externalising, \( t(40) = 2.67, p < .017 \). There were no significant differences in self-reported anxiety and depressive symptoms between mothers in the clinical group and mothers in the non-clinical group: BAI, \( t(76) = 1.57, p > .017 \); BDI, \( t(76) = 1.30, p > .017 \). There were no significant differences in self-reported anxiety and depressive symptoms between fathers in the clinical group and fathers in the non-clinical group: BAI, \( t(62) = 0.71, p > .017 \); BDI, \( t(62) = -1.73, p > .017 \).

**Insert Table 1 here**

*Interview Data*

To reduce the likelihood of inflating the type I error rate, only tests of specific interest were conducted on the interview data. Chi-square tests were carried out to examine the responses to questions one and two for parents in the clinical families only. As non-clinical children were randomly allocated to either Child A or Child B,
comparisons of responses from parents in the non-clinical group would be meaningless: One would not expect parents in the non-clinical group to ‘relate to’ or ‘protect’ child A more than child B. Analysis of question three, however, required comparisons between clinical and non-clinical families and hence chi-squared tests were carried out with both samples. For completeness table 2 shows the frequencies for both clinical and non-clinical families for the three questions.

**Question 1:** Rather than relating more to the anxious child, fathers in the clinical group were more likely to report relating to the sibling or relating equally to both children $\chi^2 (2, N = 34) = 10.47, p < .01$. Mothers in the clinical group did not differ significantly in the degree to which they reported relating to their children, $\chi^2 (2, N = 45) = 2.53, p > .05$.

**Question 2:** Fathers in the clinical group did not differ significantly in the degree to which they reported being protective of the anxious child, being protective of the sibling or being equally protective of both children, $\chi^2 (2, N = 34) = 3.26, p > .05$. Mothers, however, were more likely to report being protective of the anxious child $\chi^2 (2, N = 45) = 10.00, p < .01$.

**Question 3:** Parents of anxious children and parents of non-clinical children did not significantly differ in the degree to which they reported being more protective of both of their children in comparison to other parents: mothers, $\chi^2 (1, N = 78) = 0.99, p > .05$; fathers, $\chi^2 (1, N = 57) = 0.087, p > .05$. Fifty-two percent of mothers in the clinical group and 64% of mothers in the non-clinical group reported that they were not more protective of their children than other parents. Sixty-four percent of fathers in the clinical group and 61% of fathers in the non-clinical group reported that they were not more protective of their children than other parents.

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Insert Table 2 here
Discussion

Previous observational research has identified that mothers of anxious children are more involved and controlling during parent-child interactions than mothers of non-clinical children (e.g., Hudson & Rape, 2001; Siqueland et al., 1996). Furthermore, Hudson and Rapee (2002) reported no significant differences between observed parent-child interactions of clinically anxious children and their siblings. Using parent-report however, the results of the current study provide evidence that parents (more specifically, mothers) perceive themselves to be more protective of the clinically anxious child. The use of different methodologies (parent report & observation) has produced inconsistent results. One possible explanation for this is that while mothers may perceive that they provide greater protection over one child than another, the observational task (Hudson & Rapee, 2002) may not have been sensitive to the subtle intrafamilial differences reported by parents in the current study. Additionally, this study did not measure the magnitude of differential protection and thus, one alternate explanation could be that while mothers may be sensitive to the differential treatment of siblings this difference may not be of significant scale to be detectable during laboratory tasks. Alternately, parents may have been biased in their perceptions of their behaviour and while there may not be any differences in the way they respond to their children parents may be overly sensitive to differences. Their perception may reflect not so much actual differences in behaviour but the perceived needs of the child. Parents may perceive the anxious child as more needy but whether this changes actual behaviour may be more questionable.

Given that there appears to be subtle differences in perceived maternal overprotection between anxious children and their siblings, the possible explanations for this result need to be considered. Mothers may be more protective of the anxious child
due to any number of unique events experienced by the anxious child. For example, the anxious child may have had more illnesses or traumatic experiences than his or her sibling. It is also possible that events in the mother's life may have led her to be more protective of the clinically anxious child than the sibling. Alternately, as suggested by theory (Hudson & Rapee, 2004; Rubin & Mills, 1991) mothers may be more protective of the anxious child as a result of the child’s anxious temperament. Mothers may respond with different levels of protection depending on the child's vulnerability to anxiety: the more anxious the child the more protective the parent. Of course, the direction of this relationship cannot be ascertained by this study. Nevertheless, this interpretation is consistent with reciprocal models of parenting and anxiety.

While mothers were likely to report being more protective of the anxious child than the sibling, neither mothers nor fathers perceived themselves as being more protective than the average parent. This is not consistent with previous research from both adult retrospective studies (Alnaes & Torgersen, 1990; Bruch & Heimberg, 1994; Parker, 1981; Rapee & Melville, 1997; Silove, 1986) and studies using self-reports of parents of anxious children (Berg & McGuire, 1974; Nilzon & Palmerus, 1997). These studies show significant differences in overprotection between parents of anxious individuals and parents of non-clinical individuals. Nevertheless, while parents in this study may perceive themselves as more protective of the anxious child, they may not see themselves generally as an overprotective parent. Parents of anxious children, while capable of making intrafamilial comparisons, may not be aware of the extent to which they overprotect their children in comparison to other families.

One of the most striking results from the current research is that very few fathers in the clinical group reported relating to the anxious child more than the anxious child's sibling. Consistent with the current study, retrospective studies show that anxious adults
are more likely than non-clinical adults to report that their fathers were less caring (Arrindell, Emmelkamp, Monsma & Brilman, 1983; Arrindell, Kwee, Methorst, van der Ende, Pol, & Moritz, 1989; Parker, 1979; Stravynski, Elie & Franche, 1989). Aside from the retrospective reports of anxious adults, limited information is available on father-child relationships and the anxiety disorders. It is possible that fathers may experience difficulty responding sensitively to the needs of their anxious child, perhaps due to culturally defined roles of masculinity. This result highlights an area worthy of further investigation and suggests that relationships between fathers and their anxious children may be an issue warranting attention during treatment.

One of the major limitations of this study is the sole focus on measures of perceived parenting. Future research would benefit from utilising multiple methods of assessing parent-child interactions: child-report, parent-report and observational measures. Nevertheless this is the first study to examine perceived parental overprotection in the siblings of anxiety disordered children. This study has suggested that mothers perceive themselves to be more protective of the anxious child compared to the sib. In addition, the study showed that parents of anxious children were no more likely than non-clinical parents to perceive themselves as more protective overall than other parents.

The obvious question to be answered by future research is whether overprotective parenting places a temperamentally vulnerable child at greater risk of developing an anxiety disorder. This question requires a longitudinal analysis of temperamentally vulnerable infants of both overprotective and non-overprotective mothers. Such an investigation would provide valuable information that would assist in the ultimate prevention of anxiety disorders by ascertaining whether a causal link exists between overprotective parenting and anxiety. The results of this study would help to determine i) whether overprotective parenting augments the child’s vulnerability to anxiety and ii)
whether parenting which promotes the child’s autonomy prevents the development of anxiety disorders in children with a genetic vulnerability to anxiety.


Plomin, R., & Daniels, D. (1987). Why are children in the same family so different from one another? *Behavioral and Brain Sciences, 10,* 1-60.


Table 1

Means and Standard Deviations for Questionnaire measures across groups.

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Anxious Child</th>
<th>Sibling</th>
<th>Non-clinical children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>RCMAS</td>
<td>15.33&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.86</td>
<td>11.71&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>CDI</td>
<td>52.12&lt;sup&gt;a&lt;/sup&gt;</td>
<td>10.09</td>
<td>44.65&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>CBCL Internalising</td>
<td>73.74&lt;sup&gt;a&lt;/sup&gt;</td>
<td>10.36</td>
<td>52.14&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>CBCL Externalising</td>
<td>56.21&lt;sup&gt;a&lt;/sup&gt;</td>
<td>11.82</td>
<td>51.00&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Clinical</th>
<th>Non-clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Mothers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAI</td>
<td>18.60&lt;sup&gt;a&lt;/sup&gt;</td>
<td>15.03</td>
</tr>
<tr>
<td>BDI</td>
<td>9.36&lt;sup&gt;a&lt;/sup&gt;</td>
<td>8.25</td>
</tr>
<tr>
<td>Fathers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAI</td>
<td>10.42&lt;sup&gt;a&lt;/sup&gt;</td>
<td>7.27</td>
</tr>
<tr>
<td>BDI</td>
<td>4.59&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.24</td>
</tr>
</tbody>
</table>

Note: Means sharing superscripts are not significantly different at the critical alpha (p < .017).
Table 2

*Percentages (counts) of mothers and fathers responding to Interview questions across groups*

<table>
<thead>
<tr>
<th>Question 1:</th>
<th>Mother</th>
<th></th>
<th>Father</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Anxious</td>
<td>Non-clinical</td>
<td>Anxious</td>
</tr>
<tr>
<td>Relate more to Child 1*</td>
<td>40.0 (18)</td>
<td>36.4 (12)</td>
<td>8.8 (3)</td>
<td>43.5 (10)</td>
</tr>
<tr>
<td>Relate more to Child 2+</td>
<td>22.2 (10)</td>
<td>27.3 (9)</td>
<td>52.9 (18)</td>
<td>39.1 (9)</td>
</tr>
<tr>
<td>Relate equally to sibs</td>
<td>37.8 (17)</td>
<td>36.4 (12)</td>
<td>38.2 (13)</td>
<td>17.4 (4)</td>
</tr>
</tbody>
</table>

Question 2

| More protective of Child 1*       | 55.6 (25) | 27.3 (9)               | 35.3 (12) | 30.4 (7)              |
| More protective of Child 2+       | 22.2 (10) | 36.4 (12)              | 26.5 (9)  | 21.7 (5)              |
| Equally protective of sibs        | 22.2 (10) | 36.4 (12)              | 38.2 (13) | 47.8 (11)             |

Question 3

| More protective than other parents | 47.7 (21) | 36.4 (12)              | 35.3 (12) | 39.1 (9)              |
| Not more protective than other parents | 52.3 (23) | 63.6 (21)              | 64.7 (22) | 60.9 (14)             |

* Child 1 is the clinically anxious child in the anxious group or child A in the non-clinical group.

† Child 2 is the sibling of the anxious child in the anxious group or child B in the non-clinical group.