Parents’ cognitions and expectations about their pre-school children: The contribution of parental anxiety and child anxiety

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This study investigated the relative associations between parent and child anxiety and parents’ cognitions about their children. One hundred and four parents of children aged 3–5 years completed questionnaires regarding their own anxiety level, their child’s anxiety level and their cognitions about the child, specifically parents’ expectations about child distress and avoidance, and parents’ perceived control over child mood and behaviour. Both parent anxiety and parent report of child anxiety were significantly associated with parents’ cognitions. Specifically, parent report of child anxiety correlated significantly with parent locus of control generally and, more specifically, with parental expectations and perceived control of child anxious mood and behaviour. Parent anxiety correlated significantly with locus of control and parents’ expectations of child anxious mood and behaviour. Furthermore, when both child and parent anxiety were taken into account, only parental anxiety remained significantly associated with parental locus of control and perceived control of child anxious behaviour. For parents’ perceived control of child anxious mood, only child anxiety remained significantly associated. The results suggest that parents’ perceived control over their children’s behaviour may primarily reflect parental anxiety, rather than child anxiety. Parental anxiety may, therefore, present an important target for interventions that aim to change parent’s cognitions and behaviour.

It has been reported that parents of anxious children expect their children to be more anxious (Kortlander, Kendall, & Panichelli-Mindel, 1997), more avoidant (Barrett, Rapee, Dadds, & Ryan, 1996; Chorpita, Albano, & Barlow, 1996) and less able to cope (Kortlander et al., 1997), compared with parents of non-anxious children and children with externalizing problems. The extent to which parents’ cognitions reflect an accurate representation of the child’s likely reactions remains unclear. The current study seeks to

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examine the relative influence of parent and child anxiety levels upon parents’ expectations of their offspring.

Kortlander et al. (1997) reported that lower maternal expectations of their anxious child's ability to cope during an anxiety-provoking task were consistent with both their child's reduced expectations, and with independent observations that anxious children displayed more anxious behaviour and performed less well than non-anxious controls. On the other hand, parents of anxious children are more likely to be anxious themselves (e.g. Last, Hersen, Kazdin, Orvaschel, & Perrin, 1991), and hence are likely to have cognitive biases characterized by an increased tendency to interpret situations as threatening, lower expectations of their subsequent coping ability (Butler & Mathews, 1987; Mogg, Mathews, Eysenck, & May 1991; Taylor & Rachman, 1994) and an increased tendency to respond with avoidance behaviour (Craske, Rapee, Jackel, & Barlow, 1989). All of these factors may influence parent expectations regarding their child's mood and behaviour. Several studies examining the cognitions of parents of anxious children have included an assessment of parental anxiety (Cobham, Dadds, & Spence, 1999; Kortlander et al., 1997). However, only one study has taken into account the influence of parental anxiety on parents’ cognitions about their child (Cobham et al., 1999), by dividing the anxious children into two groups: child anxiety only or child plus parent anxiety. Mothers in the child plus parent anxiety group expected their children to be more anxious and more likely to choose an avoidant solution (Cobham et al., 1999). Whilst caution must be taken in interpreting these results due to the reliance on parental anxiety classification being based on an arbitrary dichotomy (MacCallum, Zhang, Preacher, & Rucker, 2002), these results suggest that parents’ anxiety level may influence their expectations and cognitions about their child’s emotional and behavioural reactions to anxiety-provoking situations. Furthermore, Creswell, O’Connor, and Brewin (2006) have reported that mothers’ expectations about their child’s distress predicted change in children’s anxious cognitions over time, suggesting mothers’ expectations about their child may serve to reinforce the development of anxious cognitive styles in their offspring.

The current study aimed to extend recent research by investigating the association between parent and child anxiety levels and parents’ cognitions and expectations about their child’s emotional and behavioural reactions to ambiguous situations, within a preschool community sample. The focus on young children was based on recent findings, which suggest that parents’ perceptions of their child may differ from objective observers from an early age (Murray, personal communication). Furthermore, restriction of the population to children from a narrow age band helps to control for the influence of developmental factors on parental cognitions (e.g. Dix, Ruble, Grusec, & Nixon, 1986; Rubin & Mills, 1992). Finally, this study has the statistical advantage of using a relatively large sample in order to conduct analyses with continuous data, rather than splitting data using arbitrary cut-off points.

In addition to assessing parents’ expectations about their child’s mood and behaviour, assessments of parents’ perceived control of child mood and behaviour were included in the current study using both an existing and a novel measure. The rationale is twofold. First, perceived control over child behaviour has been found to influence parenting behaviour (Bugental et al., 2002), which in-turn may influence child behaviour (Slep & O’Leary, 1998). Second, perceived control has been found to be associated with anxiety among adults (Bell-Dolan & Wessler, 1994). Here two measures of parental control are used in order to assess parental perceived control in relation to child behaviour in general, as well as specific child responses to potentially anxiety provoking scenarios.
Participants were the primary caregiving parent of 104 pre-school children attending private and state nursery provision in both urban (London) and semi-rural areas (Kent) of the UK. Parents were included if their child was aged 3–5 years with no significant physical disabilities, and if their command of English was sufficient to understand the questionnaires.

Two hundred and seventy two parents from eleven nurseries were approached to take part either by the researcher in person or via a letter from the nursery. One hundred and ten (40%) agreed to take part, but six were excluded due to language difficulties or incomplete data. Ninety per cent of parents were mothers, and 25% parents were single parent families. Sixty seven per cent were from a White UK ethnic background and 28% were classified as having ‘skilled’ occupations. Forty-six per cent of children were girls and 54% were firstborn children. Children were aged between 3 and 4.67 years ($\bar{x} = 3.76$, $SD = 0.47$).

Demographic data collected from nursery records on non-participants showed that participating parents were more likely to be of White British ethnic origin ($\chi^2(1) = 7.67$, $p = .006$) and to have been recruited from private nurseries ($\chi^2(1) = 31.72$, $p < .001$). However, further examination of subscale means showed that parent ratings of child anxiety in the current sample were similar to existing data in a large community sample of pre-school children (Eley et al., 2003).

Measures
Parents completed a questionnaire about the child’s anxiety level (Anxiety Related Behaviours Questionnaire; ARBQ: Eley et al., 2003) which comprised 16 items from existing reliable and valid measures of temperament and psychopathology. In the current study the questionnaire was found to have good internal consistency ($\alpha = .75$).

Parents also completed a self-report questionnaire about their own anxiety (State-Trait Anxiety Inventory for Adults; STAI: Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) and two questionnaires assessing their cognitions about their child: the 47-item Parental Locus of Control Scale (PLOC: Campis, Lyman, & Prentice-Dunn, 1986) and a novel measure, The Preschool Scenarios Questionnaire (PSQ).

Whilst the PLOC refers to child behaviours in general and in relation to behavioural challenges (items include, for example, ‘What I do has little effect on my child’s behaviour’, ‘When my child gets angry, I can usually deal with him/her if I stay calm’), the PSQ aimed to assess parental cognitions specifically about their children’s responses to potentially anxiety provoking situations. The PSQ is based on Barrett’s ambiguous situations questionnaire for children aged 7–14 (Barrett et al., 1996) and comprises 14 ambiguous situations that could be interpreted as presenting a threat (physical or social) based on developmentally appropriate fears for children aged 3–5 years. For each situation parents were asked to answer the following questions using 7-point scales:

1. How upset would you expect your child to be? [Parent expectation of child anxious mood]
2. What would your child do? (scale ranging from a non-anxious response to an anxious avoidant response) [Parent expectation of child anxious behaviour]
3. If your child were to become upset, how likely is it that you could change their mood? [Parent perceived control of child anxious mood]
If your child were to [display the afore mentioned anxious behavioural response], how likely is it that you could change their behaviour? [Parent perceived control of child anxious behaviour]

The questionnaire was piloted with six parents and six clinical child psychologists. On this basis 14 of the 21 piloted situations were chosen. The questionnaire was then piloted on a further 10 parents and minor modifications made. Reliability analyses on the final questionnaire revealed that the four subscales had the following alpha coefficients: parent expectation of child anxious mood $\alpha = .72$; parent expectation of child anxious behaviour $\alpha = .71$; parent perceived control of child anxious mood $\alpha = .90$; and parent perceived control of child anxious behaviour $\alpha = .91$.

Means, standard deviations and ranges for each measure are presented in Table 1. The distribution of scores shows a broad range of scores on measures of parent self-report and report of child anxiety. It is notable that high scoring individuals on the STAI in this study report scores equivalent to clinically anxious populations (e.g. Öst & Breitholtz, 2000). Comparisons with clinical populations are not available for the ARBQ, however, levels of anxiety in the current sample were similar to another large community sample (Eley et al., 2003).

Table 1. Descriptive statistics for primary variables

<table>
<thead>
<tr>
<th>Measure</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child anxiety (parent report) (ARBQ)</td>
<td>104</td>
<td>7.99</td>
<td>4.80</td>
<td>0.00–24.00</td>
</tr>
<tr>
<td>Parent anxiety (STAI)</td>
<td>104</td>
<td>39.16</td>
<td>8.85</td>
<td>22–59</td>
</tr>
<tr>
<td>Parental locus of control scale</td>
<td>104</td>
<td>113.39</td>
<td>15.62</td>
<td>74–155</td>
</tr>
<tr>
<td>Preschool anxious scenarios questionnaire</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent expectation of child anxious mood</td>
<td>104</td>
<td>37.12</td>
<td>10.60</td>
<td>15–63</td>
</tr>
<tr>
<td>Parent expectation of child anxious behaviour</td>
<td>104</td>
<td>34.18</td>
<td>11.97</td>
<td>7–64</td>
</tr>
<tr>
<td>Parent perceived control of child anxious mood</td>
<td>104</td>
<td>58.39</td>
<td>14.18</td>
<td>20–84</td>
</tr>
<tr>
<td>Parent perceived control of child anxious behaviour</td>
<td>104</td>
<td>55.91</td>
<td>15.42</td>
<td>21–84</td>
</tr>
</tbody>
</table>

Note. ARBQ, Anxiety related behaviours questionnaire; STAI, Spielberger State-Trait Anxiety Inventory (Trait).

Results

As shown in Table 2, parent report of child anxiety was positively correlated with parent expectation of child anxious mood and parent expectation of child anxious behaviour, and also with external parental locus of control. In addition, parent report of child anxiety was negatively correlated with parent perceived control of child anxious mood and parent perceived control of child anxious behaviour. Parent self-report anxiety was positively correlated with external locus of control, and negatively correlated with parent expectation of child anxious mood and child anxious behaviour.

As a significant association was found between parent self-report of anxiety and parent report of child anxiety ($r(104) = .32, p = .001$), regression analyses were carried out to identify the independent contributions of parent and child anxiety where they were both found to be associated with a particular parent cognition variable (i.e. parental locus of control, parent perceived control of child anxious behaviour and parent perceived control of child anxious mood). Here the parent cognition variable
was the dependent variable, and child and parent anxiety were entered simultaneously as predictors. The results showed that, of the two predictors, only parent anxiety significantly predicted parental locus of control (\(b = 0.54, \Delta R^2 = .15, p < .001\)) and parent perceived control of child anxious behaviour (\(b = -0.49, \Delta R^2 = .13, p = .001\)). In contrast, of the two predictors, only child anxiety significantly predicted parent perceived control of child anxious mood (\(b = -1.490, \Delta R^2 = .10, p = .004\)).

### Discussion

The findings of the current study support previous research with older children to suggest that parents of more anxious pre-school children expect their child to respond to ambiguous situations with more anxious mood and more avoidant behaviour. In addition, they have a more external parenting locus of control and, more specifically, perceive themselves to have less control of their child’s anxious mood and avoidant behaviour. By including an assessment of parent anxiety, it was possible to assess the contribution of parent anxiety to these associations. Whilst child anxiety maintained a unique association with parent perceived control of the child’s anxious mood when parental anxiety was taken into account, this was not the case for parent locus of control and parent perceived control of child anxious behaviour which was primarily associated with parent anxiety level.

These findings are important as low parental locus of control has been found to be associated with hostile or overcontrolling parenting patterns (Bugental et al., 2002) such as have been identified amongst parents of anxious children (Wood, McLeod, Sigman, Hwang, & Chu, 2003). Parents’ cognitions, therefore, may be an important contributor to the intergenerational transmission of anxiety and may be a useful target for intervention for the prevention and treatment of child anxiety.

The current study is limited by the low response rate (40%) and the presence of differences between the study participants and the population from which they were sampled, specifically on measures of ethnicity and nursery type. Nonetheless, levels of anxiety in the current sample of preschoolers were similar to previous community samples of pre-school children. It is acknowledged that the current sample contained few fathers as primary caregivers and, whilst also an advantage of the current study, the children of the participating parents were from a narrow age-band. Whether effects

### Table 2. Table of correlations between child and parent anxiety and parents’ cognitions

<table>
<thead>
<tr>
<th>Parent cognitions</th>
<th>Locus of control</th>
<th>Expectation of child anxious mood</th>
<th>Expectation of child anxious behaviour</th>
<th>Perceived control of child anxious mood</th>
<th>Perceived control of child anxious behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child anxiety</td>
<td>.26**</td>
<td>.32***</td>
<td>.32***</td>
<td>-.30**</td>
<td>-.24**</td>
</tr>
<tr>
<td>(parent report)</td>
<td>(ARBQ) N = 104</td>
<td>Parent anxiety</td>
<td>Parent anxiety</td>
<td>Perceived control of child anxious mood</td>
<td>Perceived control of child anxious behaviour</td>
</tr>
<tr>
<td>(STAI) N = 104</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. ARBQ, Anxiety related behaviours questionnaire; STAI, Spielberger State-Trait Anxiety Inventory (Trait).

*\(p < .05\); **\(p < .01\); ***\(p < .001\).
would differ according to parental role or developmental level cannot be addressed. Finally in the current study, assessment of child anxiety is limited to parent report and it is highly plausible that this is influenced by parent anxiety (Briggs-Gowan, Carter, & Schwab-Stone, 1996). Given this limitation, it is particularly striking that significant associations were found between parent cognitions about the child and parental anxiety, over and above associations with parent perceptions of child anxiety. However, future studies would, no doubt, benefit from the inclusion of objective measures of child anxiety.

Despite these limitations, the current study has provided support for associations between (parent perceptions of) child anxiety and expectations about the child’s emotional and behavioural response to ambiguity. Furthermore, the results suggest parents’ perceived control of child anxious behaviour is primarily associated with parental, rather than child, anxiety level. Replication of these findings and exploration of associated parental behaviours warrant further research attention.

References


*Received 4 January 2006; revised version received 6 November 2006*