

# A Preliminary Investigation of the Effect of Intervention on Parental Attributions and Reported Behaviour

Charlotte Wilson

*University of East Anglia, Norwich, UK*

Caroline White

*Booth Hall Children's Hospital, Manchester, UK*

**Abstract.** This short case series aimed to explore whether and how an intervention with a cognitive component changed parental attributions about child behaviour and parents' reports of their own behaviour. The results suggest change in parental attributions, coded using the Leeds Attributional Coding System (LACS), was associated with Problem score changes on the Eyberg Child Behaviour Inventory (ECBI). Changes in parents' reports of their own behaviour were associated with Intensity score changes on the ECBI. However, the changes were in both positive and negative directions. The results call for more understanding of the mechanisms involved in change in parental attributions.

*Keywords:* Cognitive-behavioural intervention, parental cognitions, parental behaviour, child behaviour problems.

## Introduction

Children's behaviour problems are common, persistent and costly to society. Standard interventions for them involve behavioural parent training, and are somewhat effective. However, it has been suggested that introducing a cognitive component into these standard programmes may improve outcomes (White, McNally and Cartwright-Hatton, 2003). A cognitive-behavioural intervention should work by changing both parental behaviour and cognitions. This short case series explored how parental attributions and reports of their own behaviour changed between the beginning and end of a standard behavioural parenting intervention with a cognitive component.

---

Reprint requests to Charlotte Wilson, School of Medicine, Health Policy and Practice, Elizabeth Fry Building, University of East Anglia, Norwich NR4 7TJ, UK. E-mail: [charlotte.wilson@uea.ac.uk](mailto:charlotte.wilson@uea.ac.uk) An extended version is also available online in the table of contents for this issue: [http://journals.cambridge.org/jid\\_BCP](http://journals.cambridge.org/jid_BCP)

© 2006 British Association for Behavioural and Cognitive Psychotherapies

## Method

### *Measures and procedures*

Child behaviour problems, parental attributions and reports of their own behaviour were assessed before and after a cognitive-behavioural parenting intervention. The intervention followed the format described by White et al. (2003) in which a thoughts-feelings-behaviour cycle is introduced into a standard behavioural intervention program (Webster-Stratton and Hancock, 1998) at session one, and is then used consistently throughout the programme.

Two baseline measures of child behaviour problems were taken using the Eyberg Child Behaviour Inventory (ECBI) one week apart before the intervention, yielding both Intensity scores (frequency of 32 problem behaviours) and Problem scores (how much the behaviours are a problem to the parent). Attributions were coded using the Leeds Attributional Coding System (LACS; Munton, Silvester, Stratton and Hanks, 1999) from transcripts of interviews with parents. These semi-structured interviews were similar to clinical interviews in which parents were asked to describe some examples of the child's good and bad behaviour and then to give explanations of why they thought the child behaved like that. Parents were also asked to describe their own usual way of managing or encouraging the behaviour. The percentage of the parents' attributions that were internal, stable, controllable and personal were calculated. These percentages were used to examine changes in attributions from before to after the intervention. The parents' reports of their usual behaviour management techniques were extracted and coded from the transcripts, using the coding systems of Dopke and Milner (2000) and Gardner, Sonuga-Barke and Sayal (1999) with adaptations for coding positive behaviour.

### *Participants*

All parents with a child under the age of 8 year referred to a child psychology service for help with their behaviour problems over 4 months were approached. The parents who completed the study (4 mothers and 1 father) ranged between 22 years and 38 years old and the children were aged between 3 and 8 years old. Three out of 4 children were male (both parents of one child took part).

## Results

### *Reliability data*

There was 83% agreement on extraction of attributions and kappas for coding the different attributional dimensions was considered good to excellent, ranging from 0.74 (controllability by child) to 0.91 (stability). The kappa statistic for coding reported behaviours was 0.83.

*Change in parental attributions.* Data are presented in Table 1. Asterisked numbers indicate a change. Examining the table indicates that intervention changed parental attributions. Parent number 11 only participated in two group intervention sessions, the other parents completed at least six individual, couple or group sessions. Parent number 11 showed no change in negative attributions and did not make enough positive attributions to show change.

**Table 1.** Changes in attributional dimensions from pre to post intervention

% attributions rated	Parent 5		Parent 6		Parent 7		Parent 10		Parent 11	
	pre	post	pre	post	pre	post	pre	post	pre	post
<b>Negative attributions</b>										
Internal to child	30	67*	55	56	57	100*	80	40*	67	75
Internal to parent	20	43*	0	22*	14	0	0	0	0	0
Stable	40	33	55	22*	43	67*	20	0*	33	33
Controllable by child	40	50	36	22*	14	33*	40	60*	100	100
Controllable by parent	20	17	9	22*	14	0*	0	0	0	0
Personal to child	80	83	82	56*	100	100	80	80	100	100
<b>Positive attributions</b>										
Internal to child	50	75	100	67*	50	0	100	100	100	50
Internal to parent	50	0*	0	17*	0	0	0	0	0	50
Stable	0	75*	50	50	50	0	0	0	0	50
Controllable by child	50	75	100	50*	100	0	100	100	0	0
Controllable by parent	0	0	0	17*	0	0	0	0	0	50
Personal to child	100	75	100	67*	100	100	100	100	100	50

\*indicates clinically significant change.

Two parents who completed at least six sessions changed both their negative and positive attributions, and the other two changed negative attributions, but there were not enough positive attributions to interpret the data. However, the changes seen were in different directions.

Half the changes to negative attributions and 2/7 of the changes to positive attributions are in one direction, assumed to be positive. Parent 5 appears to have changed their attributions about themselves rather than about their child, and parent 6 appears to have changed their attributional style in the same direction for both positive and negative attributions. Parent 7 appears to have got more negative in their attributions. Parent 10 appears to have changed in both directions.

*Changes in reported behaviour.* There were very few changes in strategies reported for encouraging positive behaviours, partly due to the overall small number of strategies reported. The main change was that parent 11 offered two strategies after intervention, whereas they did not offer any before the intervention. This may be interesting due to the small number of sessions they attended, and the focus of these sessions being on responding to positive child behaviours. However, with such small numbers firm conclusions should not be drawn.

Two parents reported using different strategies for managing difficult behaviour after the intervention. Parent 5 reported using more punitive strategies and fewer positive or less punitive strategies. Parent 10 reported that before the intervention they used avoiding and ignoring problems and after the intervention they used punitive strategies.

*Associations between changes in attributions, reported behaviour and child behaviour.* As described above, four of the five parents showed some change in their attributions, and two of the five showed some change in their reported behaviour. Examining changes in the ECBI scores two interesting patterns emerge (see Table 2 for changes in ECBI scores). For the two parents who showed some change in their attributions only the ECBI Problem score reduced.

**Table 2.** Changes in Eyberg Child Behaviour Inventory from baseline to post intervention

Parent	ECBI score	Baseline 1	Baseline 2	Post intervention
5	Intensity	169	169	106*
	Problem	23	24	13*
6	Intensity	190	192	163
	Problem	31	31	14*
7	Intensity	147	147	158
	Problem	7	7	2*
10	Intensity	215	217	119*
	Problem	31	31	19*
11	Intensity	186	184	180
	Problem	27	27	25

\*indicates a change of more than 1/3 of original score.

For the two parents who showed change in both attributions and reported behaviour, both the ECBI Intensity score and the ECBI Problem score reduced. Parent 11 did not show any change in their attributions or reported behaviour and there were no changes in either the Intensity or Problem score on the ECBI.

### Discussion

Change in parental attributions was associated with change in the ECBI Problem Score, and change in parent reported parental behaviour was associated with change in the ECBI Intensity Score. A lack of change in parental attributions or parent reported behaviour was associated with a similar lack of change on either dimension of the ECBI. These patterns are based on a very small sample, both in terms of parents, and in terms of numbers of attributional statements and examples of reported behaviour, and so they should be interpreted cautiously. However, as a preliminary exploration of changes in attributions and reported behaviour from pre to post intervention, the patterns are interesting.

The direction in which the attributions changed is surprising. For four parents the ECBI Problem score reduced and this reduction was at least one-third of the original score. However, some of these parents had more negative attributions about their children after the intervention than before. This may be due to individual differences and parents' expectations of the intervention. For example, one parent reported being disengaged from the process of parenting before the intervention. More negative attributions about their child may have increased their motivation to manage their child's difficult behaviour rather than their previous strategy of avoiding dealing with it.

These results reflect our limited understanding about the role of attributions in the development and maintenance of young children's behaviour problems. Research suggests that believing that the causes of your child's misbehaviour are internal to the child, stable and controllable and something about your child as a person constitutes having a maladaptive attributional style. This is because this pattern is associated with children's behaviour problems

and also with parents' reports of their punitive responses in situations where they believe these things. However, the findings of the current and other studies (Peters, 2001) would suggest that attributional patterns are far more complex than this. Parents' reports of their own behaviour may not correspond closely to actual parental behaviour, and in some cases a pattern of more negative attributions may be protective against the parent developing psychological problems of their own. The mechanisms by which parental attributions are involved in child behaviour problems need more exploration before these questions can be answered.

This study provides evidence that interventions can change parental attributions, however, until more is known about the mechanisms involved, it is not clear what conclusions can be made about the effect of adding cognitions to behavioural interventions for children's behaviour problems. A larger scale treatment study may be able to start addressing these issues, and also examine the group of parents whose attributions become more negative.

### Acknowledgements

Many thanks to the families who took part, to Angela Goddard for assistance with coding, and to anonymous reviewers for their helpful comments.

### References

- Dopke, C. A. and Milner, J. S.** (2000). Impact of child non-compliance on stress appraisals, attributions and disciplinary choices in mothers at high and low risk for child physical abuse. *Child Abuse and Neglect*, 24, 493–504.
- Gardner, F. E. M., Sonuga-Barke, E. J. S. and Sayal, K.** (1999). Parents anticipating misbehaviour: an observational study of strategies parents use to prevent conflict with behaviour problem children. *Journal of Child Psychology and Psychiatry*, 40, 1185–1196.
- Munton, A. G., Silvester, J., Stratton, P. and Hanks, H.** (1999). *Attributions in Action: a practical approach to coding qualitative data*. Chichester: Wiley.
- Peters, S.** (2001). *Maternal Attributions and Expressed Emotion for Child Problem Behaviour*. Doctoral Thesis: University of Manchester.
- Webster-Stratton, C. and Hancock, L.** (1998). Training for parents of young children with conduct problems: content, methods and therapeutic processes. In C. E. Schaefer and J. M. Briesmeister (Eds.), *Handbook of Parent Training* (pp. 98–152). New York: Wiley.
- White, C., McNally, D. and Cartwright-Hatton, S.** (2003). Cognitively enhanced parent training. *Behavioural and Cognitive Psychotherapy*, 31, 99–102.