PARENT TRAINING PROGRAM WITH ADHD: WHO BENEFITS?

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Paper presented at the Biennial meeting of the International Society for the Study of Behavioural Development,
Wurzburg, July 2008

INTRODUCTION

Research on ADHD emphasize the importance of distinguishing between ADHD predominantly Inattentive (ADHD-I), ADHD predominantly Hyperactive-impulsive (ADHD-H) and combining Inattention and Hyperactivity (ADHD-M), three DSM-IV subtypes (APA, 1994). Some research report differences between these subtypes with regard to cognitive functions (Milich et al., 2001; Power & DuPaul, 1996). Research also report differences in the consequences these subtypes have on the social development and school achievement of children, as well as the family functioning (Johnston & Mash, 2001; Milich et al., 2001; Power & DuPaul, 1996). With regard to family functioning, mixed results have been observed. On the one hand, studies have shown no differences in parenting discipline, expression of emotions in the family, and parental monitoring between subtypes of ADHD (Bauermeister et al., 2005, 2007; Paternite et al., 1996). Other studies report that parents of ADHD-H or ADHD-M tend to support more their child's autonomous behaviour and monitor more closely their child's behaviour, but show less affective involvement in their interaction with their child than parents of ADHD-I children (Gadow et al., 2004). Other results are to the effect that parents of ADHD-M children show a higher level of stress than parents of ADHD-I children (Bauermeister et al., 2005, 2007; Counts et al., 2005; Podolski et Nigg, 2001).

Parent training programs (PTP) for parents of ADHD children present positive effects on parenting practices, parent-child relationship and child's behaviour, especially when combined with medication (Barkley, 2002; Chronis et al., 2006; Pisterman et al., 1992; Pollard et al., 1983; Sonuga-Barke et al., 2001). However, efficacy of PTP is usually evaluated without taking into account the child's ADHD subtype, though studies have suggested differences between the family characteristics of the three subtypes (ADHD-I, ADHD-H and ADHD-M) (Milich et al., 2001).

Goal of the study: This study evaluates the efficacy of a PTP for specific subtypes of ADHD: ADHD-I and ADHD-H or M

METHODS

Subjects

62 parents of ADHD children
51 boys and 11 girls aged between 6 and 10 (M = 8.2 yrs; s.d. = 1.3 yr)
19 ADHD–I (15 boys ; 4 girls), 43 ADHD-H or M (36 boys ; 7 girls)

Diagnostic

Three instruments were used to confirm the diagnostic of ADHD: 1) Interview from the DISC-IV (Schaffer et al., 2000); 2) Parents' and teachers' observations with the Conners (Conners, 1997); 3) Psychiatrist assessment.

Intervention
Control group: Medication only (n=27) : Methylphenidate
PTP group: Medication + PTP (n=35): Methylphenidate + Parent training program "Incredible Years" (Webster-Stratton, 1998)

Characteristics of the PTP:
Group program: 7 to 16 parents in a group; 16 weeks (2 hour session weekly)
Program's goals:

- Improve parent-child relationship;
- Improve parents' positive disciplinary skills;
- Improve parents' problem-solving skills in the family and with teachers.

Measures
Parenting practices: Parenting Practices Interview (Webster-Stratton, 1998): Positive verbal discipline, appropriate discipline, clear expectations, praise and incentives, monitoring, harsh and inconsistent discipline, physical punishment (80 items, 7 Likert-type scales; alphas between .62 and .82).
Family interactions: Mc Master Family Assessment Device (Kabacoff et al., 1990): Problem solving, communication, roles, affective responsiveness, affective involvement, behaviour control (60 items; 4 Likert-type scales; alphas between .57 and .86).
Child's misbehavior: Eyberg Child Behavior Inventory (ECBI) (Eyberg & Pincus, 1999): Number of problems; intensity of problems (36 items; alphas .93 and .95).

RESULTS AND DISCUSSION

Three series of multivariate analyses of variance comparing PTP and Control groups with repeated measures were done (Table 1). The PTP global effect column presents results (group by time interaction) comparing PTP and Control groups at pre-test and post-test. The PTP ADHD-I and ADHD-H or M effect columns present results comparing PTP and Control groups at pre-test and post-test for each subtype separately.

All parents of ADHD children who participated in the PTP were less likely to use harsh and inconsistent discipline at post test compared to parents in the control group. This result is coherent with previous findings on the relevance of PTP for parents of ADHD children. The emphasis of *Incredible Years* on positive parenting is observed in parents using less harsh and inconsistent discipline as a result of their participation in the PTP.

Parents of ADHD-I children who participated in PTP maintained their ability to monitor their child's behaviour whereas control group parents of ADHD-I children showed a decrease in their ability to monitor their child's behaviour. Problem behaviour of ADHD-I children in their daily activities may be less easily observable, or less salient for the parents. As a result, these parents may tend to let go of their supervision. These

parents benefit from their participation to a PTP that supports their ability to observe their child's behaviour and reminds them of the importance of coherence, proper monitoring and supervision of their child's behaviour. These parents are also more likely to report a decrease in the intensity of their child's behaviour problems in comparison to control group parents.

Parents of ADHD-H or M children reported better family communications and affective involvement in family activities as a result of their participation to the PTP. However, it is worth noting that parents of ADHD-H or M children reported lower scores in the scales of quality of family communication and affective involvement in the family at pre-test than parents of ADHD-I children. Parents of ADHD-H or M children present parent-child interactions that are less harmonious. Therefore they benefit from a PTP that encourages them in their efforts to improve the affective quality of this interaction.

CONCLUSION

In summary, parents' participation to the PTP resulted in:

1. less use of harsh and inconsistent discipline for ALL parents of PTP groups

2. stability of parental monitoring of the child's behaviour for parents of ADHD-I but a decline in monitoring for Control parents of ADHD-I

3. improvement in family communication and affective involvement for parents of ADHD-HorM

Results of the present study suggest that parents of ADHD children benefit from their participation to a PTP. However children's characteristics may influence the parent-child interactions and the parents' perception of their child behaviour problem. Therefore parents benefit differentially from their participation to a PTP. Further studies should distinguish basic needs of families in relation to the child's characteristics, in order to assess their specific needs and to adjust the therapeutic intervention consequently.

Table 1.

		Control ADHD-I		PTP ADHD-I		Control ADHD-C		PTP ADHD-C	
		Pre-test M (s.d.)	Post-test M (s.d.)	Pre-test M (s.d.)	Post-test M (s.d.)	Pre-test M (s.d.)	Post-test M (s.d.)	Pre-test M (s.d.)	Post-test M (s.d.)
Parenting practices interview	Positive verbal discipline	5.00 (.75)	4.99 (.98)	5.23 (.71)	5.44 (.42)	5.23 (.90)	5.35 (.94)	5.10 (.89)	5.44 (.79)
	Appropriate discipline	4.67 (.86)	4.68 (.89)	4.19 (.74)	4.78 (.60)	4.78 (1.00)	4.92 (.96)	4.59 (.69)	4.78 (.69)
	Clear expectations	3.71 (.28)	3.54 (.56)	3.63 (.41)	3.79 (.56)	3.33 (.71)	2.29 (.87)	3.43 (.59)	3.67 (.50)
	Praise / incentives	3.99 (.73)	4.23 (.63)	4.44 (.90)	5.08 (.73)	4.53 (.78)	5.56 (.84)	4.45 (.86)	4.81 (.69)
	Monitoring	6.21 (.92)	5.13 (1.25)	5.42 (1.28)	5.63 (1.20)	5.82 (.86)	5.85 (.59)	5.62 (.84)	5.69 (.77)
	Harsh / inconsistent discipline	2.78 (.52)	2.84 (.79)	2.88 (.73)	2.43 (.88)	3.03 (.40)	2.98 (.67)	3.38 (.55)	2.71 (.51)
	Physical punishment	1.35 (.35)	1.19 (.27)	1.26 (.45)	1.27 (.51)	1.43 (.42)	1.32 (.51)	1.24 (.28)	1.16 (.30)
Family Assessment Device	Problem solving	2.40 (.32)	2.27 (.33)	2.24 (.37)	2.23 (.40)	2.16 (.39)	2.21 (.44)	1.91 (.41)	1.99 (.33)
	Communication	2.36 (.39)	2.38 (.37)	2.43 (.42)	2.21 (.58)	2.25 (.43)	2.33 (.36)	1.91 (.41)	2.20 (.35)
	Roles	1.91 (.28)	2.03 (.33)	1.94 (.36)	1.83 (.55)	1.91 (.32)	1.96 (.36)	1.72 (.28)	1.77 (.40)
	Affective responsiveness	2.46 (.40)	2.58 (.46)	2.46 (.45)	2.41 (.42)	2.48 (.45)	2.49 (.45)	2.18 (.55)	2.28 (.57)
	Affective involvement	2.30 (.53)	2.32 (.36)	2.36 (.49)	2.29 (.30)	2.18 (.47)	2.11 (.52)	1.94 (.39)	2.13 (.43)
	Behavior control	2.46 (.16)	2.63 (.29)	2.38 (9.35)	2.39 (.37)	2.47 (.32)	2.58 (.35)	2.34 (.32)	2.53 (.30)
ECBI	Child's number of problems	58.75 (5.63)	61.13 (9.30)	55.50 (11.60)	54.27 (10.23)	62.90 (10.10)	59.32 (9.79)	63.84 (7.62)	56.96 (8.15)
	Child problems' intensity	53.88 (8.22)	54.88 (10.34)	52.92 (3.90)	50.50 (5.15)	57.35 (7.26)	57.26 (6.79)	58.32 (5.14)	54.80 (7.29)

**: < .01; *: <.05; ^{t}: p<.10

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