

# Immediate and short-term outcomes of the 'COPEing with Toddler Behaviour' parent group

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**Background:** Controlling, uninvolved, and rejecting parenting in early childhood are strong predictors of later disruptive behavior disorders. However, there have been no evaluations of non-targeted groups for parents of very young children, despite their potential advantages. **Methods:** We randomly assigned 79 mothers of 12- to 36-month-olds to an 8-session parent training program (called 'COPEing with Toddler Behaviour') or to a waiting list control condition. We investigated the immediate and short-term impact on parent-reported child behavior problems, observed parent-child interaction, and self-reported parenting behavior and parent functioning. **Results:** In an intent-to-treat design, the program yielded significant effects on child behavior problems, positive parent-child interaction, and parental overreactivity and depression but not observed negative child behavior or parental laxness. Most effects were significant at both post-test and 1-month follow-up and effects sizes were small to medium for the intervention group and inverse to small for the control group. **Conclusions:** The potential of the program to prevent later behavior problems is supported by improvements in six of the eight outcomes. As part of a community strategy, groups such as COPEing with Toddler Behaviour may promote positive parent-child interaction and children's mental health. **Keywords:** Parent training, community programs, prevention, behavior problems. **Abbreviations:** CWTB: COPEing with Toddler Behaviour; ODD: oppositional defiant disorder.

Difficult behavior in early childhood is not uncommon (e.g., approximately 14 to 24% of 1- to 3-year-olds exhibit high levels of externalizing behavior; Rose, Rose, & Feldman, 1989; Tremblay et al., 2004). However, difficult behavior in early childhood places children at risk of later behavior problems (Aguilar, Sroufe, Egeland, & Carlson, 2000; Campbell, Pierce, Moore, Marakovitz, & Newby, 1996; Shaw, Gilliom, Ingoldsby, & Nagin, 2003). Parenting (especially controlling, uninvolved, and rejecting parenting) is an even stronger predictor of future conduct problems than parental perception of early disruptive behavior (Aguilar et al., 2000; Campbell et al., 1996; Shaw et al., 2000).

Improving parenting and parental emotion regulation can improve outcomes for preschool and school-age children (Sanders & Morawska, 2005; Webster-Stratton, Reid, & Hammond, 2004) and prevent later conduct problems (Reid, Webster-Stratton, & Baydar, 2004). Interventions successful in decreasing disruptive behaviors focus on training parents to modify their interactions with their children (e.g., Frick, 2001). Researchers have demonstrated the effectiveness of these approaches for school-age children in many studies with varying effect sizes (Layzer, Goodson, Bernstein, & Price, 2001).

## Early intervention

With regard to young (3- to 7-year-old) oppositional children, Webster-Stratton (1998) and others (e.g.,

Sutton, 1992) have found that parent training has positive effects. Interventions initiated in early childhood may have a relatively higher probability of success than those implemented later, because child and parent behavior are less entrenched, parenting style may be less impacted by child behavior, and child behavior control is emerging during this developmental period (Angold & Egger, 2007; Frick, 2001). Ruma, Burke, and Thompson (1996) suggested that better outcomes of parent training are achieved with younger children (who tend to have less severe behavior problems) than older children. In further support of the notion that earlier may be better, Layzer et al.'s (2001) meta-analysis of parenting programs revealed the largest average effect sizes for the programs involving the youngest (preschool-age) children ( $d = .39$ ).

Unfortunately, there have been few published studies of programs that include parents of children in late infancy/toddlerhood (12- to 36-month-olds). In their Cochrane review of parent training groups for parents of children less than 3 years old, Barlow, Parsons, and Stewart-Brown (2005) found five studies suitable for their meta-analysis. However, the studies targeted at-risk children (Gross, Fogg, & Tucker, 1995; Gross, Fogg, Webster-Stratton, Garvey, & Grady, 2003; Nicholson, Anderson, Fox, & Brenner, 2002; Nicholson, Janz, & Fox, 1998; Sutton, 1992). Recently, there have been at least two randomized clinical trials demonstrating positive results for individual interventions specifically designed for and targeting parents of at-risk toddlers (e.g., Morawska & Sanders, 2006; Shaw, Dishion, Supplee, Gardner, & Arnds, 2006). To our knowledge, however,

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there are no published evaluations of non-targeted groups for parents of very young children, despite their potential impact.

### *Rationale for a group approach*

Home-based individual interventions have notable advantages, such as the ability to address the specific needs of individual families and allow therapists to assess family environments, and they are more convenient for families (e.g., Shaw et al., 2006). Lower attendance and higher dropout rates have been reported for parent groups (Bunting, 2004). Nevertheless, group-based interventions may take advantage of potentially powerful mechanisms that could be missing in individual interventions, such as the opportunity for social networking with other parents, therapeutic group processes, and parental empowerment through the altruistic act of helping others (Yalom, 2005). Layzer et al.'s (2001) meta-analysis of parenting programs found stronger effects on child outcomes for programs involving a group component than those without a group component. Further, individual treatment is significantly more expensive than community group-based interventions (e.g., Cunningham, Bremner, & Boyle, 1995; Niccols, 2008), thereby potentially restricting its availability.

### *Rationale for a non-targeted approach*

Intervention programs typically target clinic-referred children or children at risk of disruptive behavior disorders by virtue of low family income or other risk factors (e.g., Brotman et al., 2005; Shaw et al., 2006; Webster-Stratton, 1998). Although poverty has been identified as a predictor of disruptive behavior disorders in childhood, poor parenting exists at all levels of socioeconomic status and is a better predictor of child aggression than poverty (Tremblay et al., 2004). Possibly due to stigma and other factors (Cunningham et al., 1995), targeted programs are less effective than non-targeted programs (those that are available to all, without screening) at reaching targeted individuals (Barnett, Brown, & Shore, 2004; Farrell & Barrett, 2007; Rose, 1992). With regard to behavior problems in preschoolers, advantages of programs involving parents with children at varying levels of socioeconomic status and social risk include enhanced utilization, cost effectiveness, and outcome (Cunningham et al., 1995).

### *Rationale for the Coping Modeling Problem Solving Approach*

There have been a variety of approaches to group-based parent training. Didactic approaches (e.g., lectures, instructional videos, or lessons) can increase participant knowledge, but research suggests difficulties with resistance, less than optimal understanding due to the lack of exploration of

positive and negative approaches to parent-child interaction, and little maintenance of behavior changes (Cunningham, Davis, Bremner, Dunn, & Rzasas, 1993). The Coping Modeling Problem Solving Approach (Cunningham et al., 1995; Masters, Burish, Hollon, & Rimm, 1987) is an active learning approach in which participants identify common parenting errors depicted by videotaped models, discuss their consequences, suggest alternatives, and identify the advantages of the alternative approaches. In a randomized trial, the Coping Modeling Problem Solving Approach proved more effective than didactic parent training (Cunningham et al., 1993). Although this approach has been applied to parent training for behavior management of older children (i.e., Community Parent Education (COPE); Cunningham et al., 1995), it had not been used previously with parents of very young children.

### *COPEing with Toddler Behaviour*

Using the COPE model as a format, we developed 'COPEing with Toddler Behaviour (CWTB),' a parent training group program focusing on parenting styles and strategies for parenting children in late infancy/toddlerhood and conducted a pilot study (Niccols, 2004). For more information, please see the Appendix.

In this randomized trial, we investigate (a) the effectiveness of CWTB in reducing child behavior problems and improving child behavior in parent-child interaction (primary outcomes), (b) the effectiveness of CWTB in improving parenting behavior and functioning, and (c) client satisfaction. Our primary hypotheses were that, at post-test and follow-up, compared to those in the waiting list control group, children whose mothers participated in the CWTB group would have fewer behavior problems and show less negative behavior and more positive behavior in interaction with their mothers. Our secondary hypotheses were that, at post-test and follow-up, compared to those in the waiting list control group, mothers in the CWTB group would engage in more positive behavior, elicit more compliance from their children, and report less laxness, over-reactivity, and depression.

## **Methods**

### *Participants*

We conducted the study with approval from the McMaster University Research Ethics Board and informed consent was appropriately obtained. We advertised CWTB sessions widely and recruited as study participants mothers who registered after the course was full (i.e., had a number of registrants already who were to receive the intervention but not participate in the study). Mothers were told that the course was full but that they could participate as study

participants, as there was space left specifically for potential research participants. Mothers were told that if they chose not to participate in the study, they could still participate in the course at a later date. Mothers were eligible for the study if they were able to complete questionnaires in English and had not attended any portion of CWTB previously. Of the 97 mothers approached over three years (2002–2005; 9 cohorts), 79 (81%) agreed to participate, signed consent forms, completed the pretest measures, and were randomly assigned to receive the intervention or to remain on the waiting list for the next group intervention (which was scheduled at a time after the study assessments were completed). Those who did not agree to participate in the study were free to remain on the waiting list or attend the course at a later date. For those who agreed to participate, the principal investigator used the random number table for random assignment (i.e., assigned those with numbers 0, 1, 2, 3, 4, or 5 to CWTB, and assigned those with numbers 6, 7, 8, or 9 to no treatment). We designed the study to have more participants assigned to treatment than no treatment, in anticipation of differential compliance (cf. Bunting, 2004).

Pre-test characteristics of study participants are described in Table 1. The participating families came from a range of ethnic backgrounds, reflecting the urban area in which the study was conducted. Mothers varied considerably in age (range 18 to 45 years), education (range 8 to 21 years), and socio-economic status (Blisshen score range 25.56 (low) to 75.60 (high); Blisshen, Carroll, & Moore, 1987). Children ranged from 12 to 36 months of age, 54% had one sibling, and 22% scored above the clinical cutoff on the child behavior problems questionnaire. Most (75%) children had no known diagnoses, 10% had speech and language problems, 5% were born prematurely, 4% had genetic syndromes, and 6% had other problems (developmental delay, cleft lip and palate, seizures). Number of family risks (demographic, child, and parent) ranged from 0 to 6, with the most common risks being low socioeconomic status (51%), maternal stress

**Table 1** Pre-test characteristics of study participants ( $N = 79$ )

	$M$ ( $SD$ )	%
Maternal age (in years)	31.0 (5.7)	
Education (% completed high school)		84.8
SES (% low) <sup>a</sup>		50.6
Married/cohabiting		82.3
Child age (in months)	24.0 (6.8)	
Male		59.5
No siblings		39.2
Child behavior problems <sup>b</sup>	51.7 (7.5)	
Family risks <sup>c</sup>		1.7 (1.7)
Other services <sup>d</sup>	1.9 (1.1)	

<sup>a</sup>Based on scores less than 42.74 on the Socioeconomic Index for Occupations in Canada (absolute range from 18 to 102).

<sup>b</sup>Eyberg Child Behavior Inventory Problems T score (absolute range 41 to 88, standardization  $M = 49$ ,  $SD = 9$ , clinical cutoff = 58), higher scores indicate more problems.

<sup>c</sup>Number of demographic risks (e.g., low socioeconomic status), child risks (e.g., developmental difficulties), and parental risks (e.g., maternal mental health, single parent, marital discord).

<sup>d</sup>Number of other services (e.g., family doctor, public health nurse, child protection).

(19%), and single parent status (18%). All families were receiving other services, most commonly from a family doctor (98%), pediatrician (23%), or preschool (17%).

Of the 79 mothers who were randomized, 74 (94%) completed post-test measures, and 71 (90%) completed 1-month follow-up measures. Those who withdrew from the study prior to follow-up ( $N = 8$ ) did not differ from the rest of the study participants in terms of child behavior problems or any demographic characteristics except marital status (i.e., those who withdrew were more likely to be single parents, Fisher's Exact Test  $p = .038$ ).

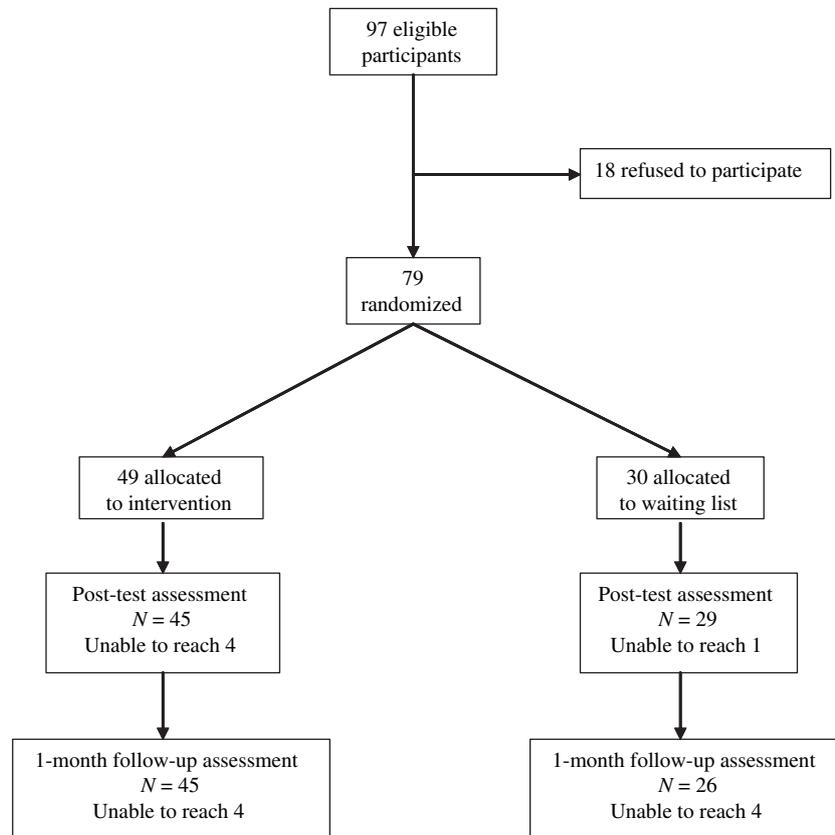
### Measures and procedures

The research assistants who conducted all the research assessments were blinded to group assignment and the method of randomization. Participants completed the outcome measures in their homes within two weeks prior to group assignment, after the 8-session program, and at 1-month follow-up. All assessments were conducted on all participants, regardless of attendance, i.e., intervention dropouts were followed unless they dropped out of the study also. The flow of participants through the course of the study is demonstrated in Figure 1.

*Child behavior problems.* To assess child behavior problems, we used the Eyberg Child Behavior Inventory Problem Scale, a 36-item parent-report questionnaire widely used to assess behavior problems (conduct, aggression, attention) in very young children (Eyberg & Pincus, 1999). Chronbach's alphas for our sample ranged from .84 to .91.

*Parent-child interaction.* To assess parent-child interaction, we used a structured observation method in which mothers were observed interacting with their child during six 5-minute activities (free play, Lego pick-up, coloring, distraction, and putting on socks and shoes; cf. Cunningham et al., 1995). Two observers coded the behavior of each child (negative, positive), mother (positive), and dyad (compliance) according to an interval sampling procedure with 10-second observing and 5-second recording intervals. Scores represent the number of intervals that the behavior was observed (possible range 0–120), except compliance which is a ratio of child compliance to maternal requests. This measure has been used in previous evaluations of parent training (e.g., Cunningham et al., 1995). A research assistant experienced in the method trained the observers. Inter-rater reliability was calculated on a random sample of 20% of the data. Reliability (interval by interval proportion agreement) for individual codes ranged from .81 to .88 for two observers. The proportion of specific agreement ranged from .78 to .90 and from .78 to .87 for positive ratings and negative ratings, respectively. The proportion of overall (total) agreement was .84. Scores of the two observers were averaged for every child, mother, and dyad.

*Parenting behavior.* We assessed parenting behavior using the Parenting Scale, a 24-item scale designed to assess discipline practices in parents of young children



**Figure 1** Diagram of the flow of participants followed through the course of the study

(Arnold, O'Leary, Wolff, & Acker, 1993). The scale has two empirically-derived factors: Laxness (permissiveness) and Overreactivity (authoritarian discipline, displays of anger). (A third factor, Verbosity, was identified in the scale-development sample but never replicated (Rhoades & O'Leary, 2007), so we did not include it in the analyses.) Chronbach's alphas for the two scales ranged from .81 to .83 in our sample.

**Parent functioning.** We assessed parental depression using the Centre for Epidemiological Studies Depression Scale (CESD), which is a 20-item self-report measure of adult depressive symptomatology developed for use with non-psychiatric research populations (Devins & Orme, 1985). Chronbach's alphas in our sample ranged from .89 to .92.

**Participation and client satisfaction.** At the end of each group, group facilitators assessed mothers' participation (level of cooperation, involvement, likeability, and valence, rated on 5-point scales; cf. Chamberlain, Patterson, Reid, Kavanagh, & Forgatch, 1984) and study participants completed a client satisfaction questionnaire, using a questionnaire developed and used previously (Niccols & Mohamed, 2000).

#### **CWTB group program**

We designed CWTB to train parents in effective parenting styles and strategies for parenting very young children, using the COPE format (cf. Cunningham et al., 1995). For more information on CWTB, please see the Appendix. In general, CWTB session topics focus on

preventing challenging behavior (cf., Brazelton, 1989; Honig, 1996; Lieberman, 1993), and feedback from parents during the pilot phase confirmed the relevance of these topics and their appropriateness for 12- to 36-month-olds. To ensure intervention fidelity, CWTB group facilitators attended 20 hours of workshop training, implemented the course according to procedures described in the facilitators' manual (Niccols et al., 2004), attended weekly supervision meetings with the originator, and completed Self-Monitoring Checklists (cf. Moncher & Prinz, 1991; 98% average fidelity achieved). Study participants randomly assigned to CWTB attended an average of 5.3 of the 8 sessions ( $SD = 2.7$ ) and completed an average of 3.7 of the 7 home practice assignments ( $SD = 2.5$ ).

#### **Statistical analyses**

Preliminary analyses included *t*-tests (for continuous variables) and chi-square tests (for categorical variables) on demographic and outcome variables to check for adequate randomization. Statistical analyses involved a series of repeated measures analyses of variance (ANOVAs) for effects of Time (3 levels, pre-test, post-test, and 1-month follow-up) and Group (2 levels, treatment and no treatment) on child behavior problems, parent-child interaction, parenting behavior, and parent functioning. We examined significant effects using *t*-test comparisons. All analyses involved an intent-to-treat approach whereby we included all mothers randomized (all assessments were conducted on all participants, regardless of attendance).

We assessed the impact of the intervention using two criteria. The first was the statistical significance of any changes and differences between groups. The second criterion was effect size estimation, to assess the size of the program impact (Cohen, 1988).

*Power.* For the two-group (intent-to-treat) analyses, with an alpha level of .05 and an estimated effect size of one half of a standard deviation ( $d = .50$ ; medium-sized difference between the two groups), adequate power (.88) was achieved (Cohen, 1988). (The effect size was estimated based on pilot study results; Niccols & Mohamed, 2000).

## Results

### Preliminary analyses

The two groups (as randomly assigned to treatment and no treatment) did not differ significantly on pre-test maternal age, education, socioeconomic status, marital status, infant age, infant gender, family size, family risk factors, number of other services used, or child behavior problems, indicating that the randomization process resulted in two groups that were not significantly different prior to intervention.

### Primary outcomes

Repeated measures ANOVAs revealed significant interactions of Time by Group on Eyberg child behavior problems and observations of positive child behavior,  $F_s(2, 68) = 6.33$  and  $10.12$ , respectively,  $ps < .017$  (Bonferroni corrected), with behavior problems scores significantly lower and positive behavior significantly higher for the CWTB group than the waiting list control group at 1-month follow-up,  $ps < .017$ . A repeated measures ANOVA revealed no significant effects of Time or Group on observed negative child behavior. (Correlations between negative child behavior observed during parent-child interaction and Eyberg parent report of child behavior problems were very low ( $r_s = .00$  and  $.09$ , ns).) Effect sizes for changes in behavior problems and observed child behavior were small to medium (cf. Cohen, 1988) for those children whose mothers participated in CWTB and inverse to small for the control group (see Table 2). Given the range of socioeconomic status of the participants, analyses comparing participants with high versus low socioeconomic status were conducted. Results of these analyses did not reveal any significant differences in the effectiveness of the intervention for participants with high versus low socioeconomic status.

### Secondary outcomes

Repeated measures ANOVAs revealed significant interactions of Time by Group on observed parent-child interaction (compliance and positive parent behavior) and self-reported overreactivity and

depression,  $F_s(2, 68) = 4.40, 3.20, 2.40,$  and  $3.10$ , respectively, all  $ps < .05$ , with significantly higher observation scores and lower self-report scores for the CWTB group than the control group at post-test and 1-month follow-up,  $ps < .05$ . A repeated measures ANOVA of the effects of Time and Group on parent laxness was nonsignificant. Effect sizes for changes in parent-child interaction, parenting behavior, and parent functioning were small to medium for those children whose mothers participated in CWTB and inverse to small for the control group (see Table 2).

### Participation and client satisfaction

Participation ratings were high ( $M = 16.26$ ,  $SD = 2.53$ , range 12 to 20, absolute range 4 to 20). On the client satisfaction questionnaire, CWTB participants reported that they valued the intervention. Many (68–97%) reported that talking with other parents, problem solving parenting challenges, and reviewing home practice were helpful or very helpful. Most (79–88%) reporting finding it helpful or very helpful to learn about parenting styles and strategies to prevent and respond to behavior challenges. All (100%) reported increased understanding of their child's behavior, coming up with better solutions to challenges, and more confidence in dealing with their child.

## Discussion

The results of this study are consistent with previous research that has supported group training for parents of older children, as well as the few existing group interventions that included parents of children in late infancy/toddlerhood and individual interventions for parents of at-risk toddlers (Layzer et al., 2001; Gross et al., 1995, 2003; Morawska & Sanders, 2006; Nicholson et al., 1998, 2002; Shaw et al., 2006; Sutton, 1992; Webster-Stratton, 1998). Intention-to-treat analyses indicated significant program effects on two of three primary outcomes (child behavior problems and observed behavior) and four of the five secondary outcomes (parent behavior and functioning), providing support for many of the hypotheses. Most effects were significant at both post-test and 1-month follow-up, and effect sizes were small to medium for the intervention group and inverse to small for the control group. In their meta-analyses of targeted parenting programs, Barlow et al. (2005) and Layzer et al. (2001) found effect sizes for parent and child outcomes that were similar to those reported here for CWTB. CWTB program effects for child behavior problems and parent-child interaction also are consistent with prevention programs for families of at-risk preschoolers that have demonstrated success in improving child behavior and parenting (Brotman et al., 2005; Webster-Stratton, 1998; Webster-Stratton, Reid, &

**Table 2** Mean scores and standard deviations by group for pre-test, post-test, and 1-month follow-up and effect sizes for outcome measures

	CWTB (N = 45)			Controls (N = 26)		
	M	SD	d	M	SD	d
Primary outcomes						
Eyberg Child Behavior Problems <sup>a</sup> :						
Pre-test	51.22	7.57		53.20	7.66	
Post-test	48.87	6.22	.34	50.68	7.23	.34
Follow-up	47.44**	4.57	.62	50.60	8.76	.32
Negative child behavior <sup>b</sup> :						
Pre-test	20.36	9.17		23.65	7.35	
Post-test	17.81	8.84	.28	22.29	8.85	.17
Follow-up	18.86	7.53	.18	21.29	7.78	.31
Positive child behavior <sup>b</sup> :						
Pre-test	17.12	8.64		16.60	9.28	
Post-test	21.10*	8.59	.46	16.27	9.25	-.04
Follow-up	22.61**	8.97	.62	16.69	8.40	.01
Secondary outcomes						
Compliance <sup>c</sup> :						
Pre-test	.54	.20		.54	.20	
Post-test	.62*	.19	.41	.53	.19	-.05
Follow-up	.61*	.19	.36	.53	.19	-.05
Positive parent behavior <sup>b</sup> :						
Pre-test	25.64	7.13		25.29	8.55	
Post-test	28.37*	6.76	.39	24.67	7.30	-.08
Follow-up	28.76*	6.87	.45	26.44	7.66	.14
Parent laxness <sup>d</sup> :						
Pre-test	2.69	.89		2.91	1.09	
Post-test	2.49	.78	.24	2.69	.91	.22
Follow-up	2.41	.83	.32	2.64	.74	.29
Parent overreactivity <sup>d</sup> :						
Pre-test	2.76	.72		2.61	1.02	
Post-test	2.49*	.60	.41	2.60	.98	.01
Follow-up	2.51*	.65	.36	2.68	.88	-.07
Parent depression <sup>e</sup> :						
Pre-test	11.16	8.90		11.38	10.59	
Post-test	8.22*	6.04	.39	13.15	11.20	-.16
Follow-up	9.62*	9.78	.16	11.81	10.53	-.41

<sup>a</sup>Eyberg Child Behavior Inventory Problems T score.

<sup>b</sup>Scores represent the number of intervals that the behavior was observed during parent-child interaction observation time (possible range 0-120).

<sup>c</sup>Ratio of child compliance to maternal requests.

<sup>d</sup>Parenting Scale subscale score.

<sup>e</sup>Centre for Epidemiological Studies Depression Scale score.

\*Mean score significantly lower than controls,  $p < .05$ .

\*\*Mean score significantly lower than controls,  $p < .017$  (Bonferroni corrected alpha).

Hammond, 2001). Thus, findings from this study replicate studies showing the effectiveness of parent training and extend the evidence to a community-based group program for parents of very young children. The short-term improvements in child behavior and parenting (both based on independent observations as well as parent/self report) found in this study provide support for the potential longer-term preventive effects of CWTB on child behavior problems.

Participation and client satisfaction ratings for CWTB were high, suggesting that parents were actively engaged in and perceived potential effectiveness of this intervention. Significant program effects in parent report of depression and overreactivity are consistent with improvements in observed positive parent behavior in the present study and with results of previous studies showing the impact

of intervention on parenting and parent functioning (e.g., Layzer et al., 2001). These findings are important given that improving parenting and parental emotion regulation can improve outcomes for children (Sanders & Morawska, 2005; Webster-Stratton et al., 2004) and prevent later conduct problems (Reid et al., 2004).

It appeared that significant changes in parenting and parent-child interaction detected by post-test for those in the CWTB group took some time to result in significant improvements in child behavior problems and positive child behavior at 1-month follow-up. In a skill building program, the entire repertoire of skills is not available until the end of the program and it is possible that child behavior problems improved over one month post-intervention as mothers who attended CWTB practiced newly acquired (or enhanced) skills at home.

### *Non-significant findings*

Although there was support for the hypothesis related to parent-reported child behavior problems, this finding was not consistent with the observation of negative child behavior, for which there were no significant group differences. Correlations between observed negative child behavior and parent-reported child behavior problems were very low, suggesting that perhaps the observation time was not long enough or the structured tasks did not elicit misbehavior or capture an adequate sample of naturally occurring interaction and child behavior (cf. Gardner, 2000). There is considerable information on the excellent psychometric properties of the Eyberg so it may provide a better assessment of child behavior problems; however, it may be subject to reporter bias. There also were no significant effects of CWTB on parental laxness. Although changes in average mean scores for parental laxness were in the expected direction, they were not large enough (or different enough from the control group scores) to be statistically significant.

### *Limitations*

There were several limitations to this study. First, the generalizability of the findings are limited to mothers who are concerned enough about their child's behavior to register for a parenting course (i.e., it was not a screened, clinical sample). However, 22% of the children had scores in the clinical range at pre-test and many were at clinical risk due to a variety of factors (e.g., approximately half of the sample had low socioeconomic status). Because the study involved a 'real world' sample of children whose parents registered for the course, it may have greater external validity than intervention studies conducted in research laboratories with recruited homogeneous samples (Chambless & Hollon, 1998; Weisz, Donenberg, Han, & Weiss, 1995). However, further research is needed with larger or clinical samples to address the efficacy of CWTB as a treatment program for high-risk children (versus a population-based prevention program). Second, we did not conduct longer-term follow-up to assess the effectiveness of CWTB in preventing disruptive behavior disorders. Future studies of CWTB in which participants are followed over a longer time would be informative with regard to the effectiveness of this 'ounce of prevention.'

### **Conclusions**

The results of this study provide support for the efficacy of CWTB. Parents attended and were satisfied with the program, even though the majority of their children did not exhibit clinically elevated levels of problem behavior. Intervention parents benefited

in terms of more positive parenting behavior and less overreactivity and depression, and their children exhibited fewer behavior problems and more positive behavior and compliance following the group. These findings suggest that early prevention programs designed to enhance protective factors (i.e., positive parent-child interaction, parenting behavior, and parent functioning) and reduce risk factors (e.g., child behavior problems, overreactive parenting) may be useful as a strategy for preventing disruptive behavior disorders (cf. Brotman et al., 2005).

Given resource limitations (due to restrictions in funding, increasing demand for early intervention services, and lack of easily implemented, empirically-based programs), individual treatment programs may be less able to address behavior issues in the population than group-based prevention programs, and less able to take advantage of the potential benefits of mixed groups (Cunningham et al., 1995). Also, as stated by Angold and Egger (2007), 'the 'architecture of risk' is already in place in the preschool years. Of course, there is plenty of room for secondary and tertiary prevention efforts, but if the hope is to prevent the onset of relatively common disorders (such as ODD), then we may have already largely missed the boat by the age of two or three' (p. 963). Incorporation of parent training groups such as CWTB as part of a community strategy to promote positive parent-child interaction and children's mental health warrants further exploration and investigation (Bunting, 2004), as the implications of their widespread implementation may include reduced costs to the social service system, increased access, and more positive outcomes for children.

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## Key points

### What's known?

- Controlling, uninvolved, and rejecting parenting in early childhood are predictors of later disruptive behavior disorders.
- However, there have been no evaluations of non-targeted groups for parents of very young children.

### What's new?

- We investigated the immediate and short-term impact of a new 8-session parent group (called 'COPEing with Toddler Behaviour') and found significant effects on child behavior problems, positive parent-child interaction, and parental overreactivity and depression but not observed negative child behavior or parental laxness.

### What's clinically relevant?

- The potential of the program to prevent later behavior problems is supported by improvements in six of the eight outcomes.
- As part of a community strategy, groups such as COPEing with Toddler Behaviour may promote positive parent-child interaction and children's mental health.

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## Appendix: COPEing with Toddler Behaviour (CWTB) Pilot Study

We conducted a pilot study of a 3-session version of CWTB (Niccols, 2004). The groups filled up quickly (i.e., we had a waiting list). Over three offerings, 90 parents registered by telephone and 48 parents (53%) completed at least 2 of the 3 sessions and a client satisfaction questionnaire. They reported that they highly valued the course: 88–100% said they learned something new, plan to use what they learned, and found the course helpful. One-third thought the course was too short. Of the 48 parents, 16 completed pre-test, post-test, and follow-up standardized parent-report measures. Results showed small to medium effect size decreases in difficult child behavior, dysfunctional parent-child interaction, and parental distress, and a significant increase in knowledge of parenting issues. We found no negative effects.

Over the next several years, we gradually expanded the course from 3 sessions to 8 sessions in response to feedback and in an attempt to make it more effective. There was no decrease in enlistment or client satisfaction. Retention improved with the addition of incentives (meals and prizes; 65% completed at least 5 of 8 sessions). We developed a manual for facilitators (Niccols et al., 2004). As the pilot study involved a short version of the course, a small sample, no control group, and parent-report measures only, a randomized trial was the next step in this research.

### CWTB group program

We designed CWTB to train parents in effective parenting styles and strategies for parenting children in late infancy/toddlerhood. In the COPE format (Cunningham et al., 1995), relatively large groups of parents (10–25) sit at tables of 4–6 parents each and watch video clips of confederate parents making exaggerated errors in common parent-child interaction situations. They discuss in their small groups (i.e., at their tables) the errors and the impact of the errors, as well as alternatives and the benefits of the alternatives. Large group discussion follows each

small group discussion. Parents practice skills in structured homework assignments and, in the following session, discuss their home practice and get peer support for their efforts. Each of the eight weekly sessions is two hours long. There are no make up sessions.

The only modification to the format of the COPE model was to exclude role playing, as feedback from parents in the pilot phase regarding this element of the program was quite negative (likely due to the inherent difficulties in role playing the part of the very young child). Content also differs from COPE. Instead of focusing on behavior management of older children, CWTB session topics focus on preventing challenging behavior in 12- to 36-month-olds (cf., Brazelton, 1989; Honig, 1996, Lieberman, 1993). Session topics include how to use an authoritative parenting style and foster a positive parent-child relationship, have appropriate developmental expectations, prevent challenging behaviors by planning ahead, using praise, and giving choices, respond to challenging behavior by setting limits, redirecting, and ignoring inappropriate behavior, and modify the environment to limit conflict (see Niccols et al., 2004 for more information). Feedback from parents during the pilot phase confirmed the relevance of these topics and their appropriateness for 12- to 36-month-olds.

CWTB group facilitators are infant development specialists with educational backgrounds in psychology, early childhood education, or social work, and additional training and experience in parent education and intervention with families of young children at risk. To ensure intervention fidelity, CWTB group facilitators attended 20 hours of workshop training, implemented the course according to procedures described in the facilitators' manual (Niccols et al., 2004), attended weekly supervision meetings with the originator, and completed Self-Monitoring Checklists (cf. Moncher & Prinz, 1991; 98% average fidelity achieved). Two facilitators conducted each session. In order to minimize barriers and maximize participation, CWTB sessions were held at convenient locations (early years centers across the region) with free parking, transportation assistance, incentives (food and prizes), and free onsite childcare.