

## Evaluation of the *First 3Years* Program

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### Overview of the Pilot Evaluation Study

From 2001 to 2004, Drs. Carol Metzler (Oregon Research Institute), Jeffrey Measelle (UO), and Laura Jones collaborated on a quasi-experimental pilot investigation of the *First 3 Years* parenting group series. These data were collected during the curriculum development phase. (Now that the curriculum is finalized and published, further evaluation is underway). Across Infants, Ones, and Twos, 191 families of infants and toddlers were recruited and assessed at 2 timepoints. Of these, 107 were recruited from BTT in advance of their already-scheduled participation in an *F3Y* group (intervention condition) and completed questionnaires before beginning and after completing the group (6 months later for *Infants*; 3 months later for *Ones* and *Twos*). A comparison sample of 84 families was recruited from the community through a University of Oregon birth registry database; they also completed the measures on 2 occasions separated by 6 or 3 months to coincide with the length of the parenting groups. Experimental and comparison families were matched on the children's ages. Intervention effects were evaluated using analysis of covariance in which pre- and post-test measures served as dependent measures (within-subject factor) and group condition (intervention vs. comparison) served as the between-subject factor. Analyses of the effects of the *Infants* curriculum controlled for household income; analyses of the effects of the *Ones* and *Two* curricula controlled for child age, birth order, and gender.

The targeted constructs and their measures include:

- Parenting practices and attitudes
  - Parenting Scale (Arnold et al., 1993)
  - Ideas About Parenting (Heming et al., 1991)
- Parental childrearing knowledge
  - Measure derived from curriculum
- Parenting stress
  - Parenting Daily Hassles (Crnic & Greenberg, 1990)
  - Parenting Stress Index (Abidin, 1995)
- Co-parenting relationship
  - Child-Rearing Disagreements Scale (Jouriles et al., 1991)
- Social support resources
  - Social Support for Parenting (Metzler & Jones [2001]; adaptation of Barrera, 1981 and Telleen, 1985)
- Child social and emotional behavior (*Ones* and *Twos* only)
  - Brief-Infant Toddler Social & Emotional Assessment (BITSEA; Briggs-Gowan & Carter, 1998)
  - Early Childhood Behavior Questionnaire (ECBQ; Putnam et al., in preparation)

### **Analysis of Effects of the Incredible Infants Program**

Those who participated in the *Incredible Infants* program ( $n = 38$ ) were in greater need of a parenting intervention at pre-test than the community comparison group ( $n = 32$ ). At pre-test, *Infants* program participants reported significantly lower levels of parenting self-efficacy, pleasure in childrearing, and satisfaction with social support, as well as greater levels of parenting stress, unmet need for social support, and co-parenting conflict than those in the comparison group.

Participation in the *Infants* program, however, significantly improved participants' scores in all of these domains. Relative to the comparison group, *Infants* participants showed significant and meaningful improvements in their parenting self-efficacy, support satisfaction, and pleasure in childrearing, and significant and meaningful declines in their parenting stress and level of unmet need for support. Marginally significant effects were also found for reduced co-parenting conflict. A small non-significant effect was also found for improved appropriateness of parents' developmental expectations. Taken together, these data indicate that the *Infants* program achieved meaningful effects on important parenting outcomes among parents of first-birth infants. These results are displayed in Table 1.

### **Analysis of Effects of the Wonderful Ones and Terrific Twos Programs**

In an analysis of all participants in the *Ones* program and their community comparators, *Ones* participants showed a preventive effect against Community sample increases in authoritarian beliefs. Similarly, across all *Twos* participants and their community comparators, *Twos* participants showed a preventive effect against Community sample increases in spanking. No other significant program effects were found across the entire sample of *Ones* and *Twos*. Additional analyses, however, suggest that effects of the *Ones* and *Twos* program may be concentrated among low-income participants. Of *Ones* and *Twos* in the sample with complete data, 29 families ( $n = 20$  intervention;  $n = 9$  comparison) reported annual household income levels at or below 185% of the poverty rate. The *Ones* and *Twos* samples were combined for these analyses, which are presented in Table 2.

Among the low-income families, parents who participated in a *Ones* or *Twos* group reported no significant change from pre- to post-test in authoritative parenting beliefs, parenting stress, or level of co-parenting disagreement. They did acknowledge a small decline in their level of parenting confidence. On the other hand, they reported a significant increase in the availability of and their satisfaction with social support received. In contrast, across a comparable 3-month period, parents in the control condition reported meaningful declines in their authoritative parenting beliefs, confidence as parents, and availability of and satisfaction with social support, as well as large increases in their levels of stress. These data suggest that, for low-income families with very young children, participation in a *Ones* or *Twos* group appears to have guarded against some negative changes seen in families not receiving the programs.

All three child behavior composite scales (competence [attention, compliance, social relatedness, motivation, and prosocial behavior], internalizing problems [sadness, anxiety, withdrawal, and fear], and externalizing problems [anger, defiance, and frustration]) demonstrated change in the expected direction from pre to post in both the program and comparison groups. Specifically, for both groups, parents' reports suggested improved levels of competence and declining levels of internalizing and externalizing problems over time, suggesting normative developmental change on these dimensions. The competence measure, however, also yielded a borderline significant intervention effect. Despite nearly identical pre-intervention levels of competence, by post-intervention, the children whose parents received the *Ones* or *Twos* program were described as more competent than the children whose parents did not receive the program. Taken together, these data indicate that the *Ones* and *Twos* series achieved meaningful effects with a low-income sample of parents.

## Parent Satisfaction Surveys

In parent satisfaction surveys obtained in the final session of *Infants*, *Ones*, and *Twos* groups (407 parents total), a large majority of parents indicated that the informational content of the *First 3 Years* program “definitely” helped them to be a better parent (83% overall). Furthermore, 73% reported that the aspect of the program most liked was the opportunity to interact with and get social support from other parents.

**Table 1. Results of *Incredible Infants***

Parenting Domain	Intervention		Comparison		Intervention Effects	
	Pre	Post	Pre	Post	F <sub>(1, 64)</sub>	d <sup>a</sup>
Parenting self-efficacy	4.11 (.10)	4.72 (.10)	4.46 (.11)	4.59 (.11)	8.58**	.71
Social support satisfaction	5.26 (.21)	5.80 (.17)	6.10 (.24)	5.88 (.19)	5.84*	.60
Unmet need for social support	.60 (.15)	.33 (.14)	.10 (.17)	.29 (.16)	5.75*	.60
Pleasure in parenting	3.21 (.07)	3.38 (.06)	3.47 (.08)	3.39 (.06)	7.17**	.66
Parenting stress	35.26 (3.1)	29.12 (2.7)	23.40 (3.1)	23.61 (2.7)	4.51*	.57
Co-parenting conflict	1.64 (.10)	1.48 (.07)	1.33 (.10)	1.35 (.07)	3.46#	.46
Developmental expectations	4.20 (.26)	4.73 (.28)	4.81 (.27)	4.76 (.29)	1.79	.33

Notes: Means (and standard errors) are covariate adjusted.  
<sup>a</sup>Cohen’s *d* (measure of effect size) on covariate-adjusted means and SDs. <.40 is a small effect; .40-.70 is a medium effect; >.70 is a large effect.  
# non-significant trend, p<.10;  
\* statistically significant, p<.05;  
\*\* statistically significant, p<.01.

**Table 2. Results of *Wonderful Ones* and *Terrific Twos*, low-income subsample**

Parenting Domain	Intervention		Comparison		(SD) <sup>a</sup>	Intervention Effects	
	Pre	Post	Pre	Post		F <sub>(1, 26)</sub>	d <sup>b</sup>
Parenting styles & skills							
• Authoritative parenting	7.40	7.38	7.33	6.81	(.76)	2.38	.64
• Parenting confidence	7.85	7.69	8.31	8.09	(.80)	2.02	.59
Parenting stress	4.17	4.20	4.23	4.70	(.36)	2.74	.69
Parent knowledge	2.07	2.19	2.14	2.20	(.88)	1.09	.43
Co-parenting conflict	1.59	1.63	1.75	2.47	(.74)	4.28*	.86
Social support	4.29	5.58	5.01	4.52	(1.50)	3.11*	.73
<b>Child Domain</b>							
Competence	43.96	54.08	43.82	47.35	(18.02)	3.09#	.73
Internalizing problems	54.04	48.41	57.32	51.66	(15.77)	1.16	.45
Externalizing problems	49.90	55.60	52.03	58.05	(16.61)	1.10	.44

Notes: <sup>a</sup> Pooled within-group standard deviation.

<sup>b</sup> Cohen’s *d* (measure of effect size). <.40 is a small effect; .40-.70 is a medium effect; >.70 is a large effect.

# non-significant trend p < .10;

\*statistically significant at p < .05.