



Effectiveness of a parent training program “Incredible Years” in a child protection service

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ABSTRACT

Objective: This study aims to evaluate the effectiveness of a parent training program in improving parenting practices, parents' feeling of self-efficacy and parents' perception of their child's behavior, implemented in a child protection service, with trained professionals from the agency acting as facilitators.

Method: Thirty-five parents monitored in a child protection service for child neglecting behaviors participated either in the intervention group ($n=26$) or were on the waiting list ($n=9$). The program implemented (Incredible Years) lasted 16 weeks, was in a group format, and aimed: (1) to develop a harmonious parent–child relationship; (2) to support parents in learning and consistently applying effective practices; (3) to improve problem solving and communication skills within families and with teachers. A repeated measures design was used to test the program's effects on parenting practices, parents' feeling of self-efficacy, parents' perception of their child's behavior, and parents' satisfaction. Parents were tested twice, during a 19-week interval, before and after the parent training program.

Results: Analyses of variance comparing Intervention and Control groups with repeated measures (pre- and post-test measures) revealed that the program has a positive impact on parenting practices (harsh discipline, physical punishment, praise/incentive, appropriate discipline and positive verbal discipline) and parents' perception of their child's behavior (frequency of behavioral problems and number of problematic behaviors). No change on clear expectations from parents, or on parents' self-efficacy was observed.

Conclusion: Though the implementation of an evidence-based parent training program by professionals in a child protection service presents specific challenges, results suggest that it can contribute to improvements in parenting practices and in parents' perception of their child's behavior.

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Introduction

There are 9.7 and 6.7 children out of 1000 in Canada and in Québec, respectively who are abused or neglected every year (Trocmé, 2005). This rate reaches 30/1000 in the United States (Hildyard & Wolfe, 2002). In the Province of Québec, 74% of cases monitored by child protection services involve child neglect (60%) (e.g., caregiver lives or behaves in such a way that it may place the child in moral or physical danger) or child abuse (14%) (e.g., the child is the victim of sexual abuse or of

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maltreatment as a result of abuse or neglect). Problems witnessed in such families raise concerns with regard to parenting practices (Barth et al., 2005). Children who have been abused or neglected are at greater risk of developing cognitive, emotional, social and behavioral problems which may worsen as the child grows from infancy into adulthood (Cicchetti & Rogosch, 1994; Hildyard & Wolfe, 2002; Lau & Weisz, 2003). As most abused or neglected children remain in their family environment and given that parents are the primary agents of socialization, it is essential to examine interventions that can provide such parents with effective support.

Over the past few years, different intervention models were designed for and experienced in families that display either abuse and/or neglect. For example, Corcoran (2000) identified behavioral interventions, cognitive-behavioral therapy, family therapy, and social support promotion. MacLeod and Nelson (2000) conducted a meta-analysis and described how family preservation services, multi-component treatments, social support and parent training are the main interventions in preventing further maltreatment and out-of-home placement of the child in cases of abuse or neglect. Among these, parent training programs (PTP) aim to change parenting practices to promote children's psychosocial development. Such programs are often set up in child protection services for parents who abuse or neglect their children (Barth et al., 2005). More specifically, the goals of these programs are to encourage parents to adopt positive practices such as consistent and contingent use of reinforcement, voluntary ignorance and adequate punishments, to increase parents' sensitivity to the child, appropriate monitoring and problem solving skills. Reviews and meta-analyses support the efficacy of PTP in improving parenting skills and children behavior in families with children presenting behavior problems (Lundahl, Risser, & Lovejoy, 2006; Serketich & Dumas, 1996; Webster-Stratton & Reid, 2006). Researchers in the field of child abuse and neglect agree that PTP are also relevant in a protection care context. Indeed, skills targeted by such programs reduce the risk of abuse or neglect (Gershater-Molko, Lutzker, & Sherman, 2002; Herbert, 2000). Parents' participation in such programs can help prevent recurrent abuse or neglect, facilitate the return of children to their families and decrease the number of children and families who re-enter child protection services (Pinkston & Smith, 1998). Corcoran (2000) noted that parents are often more willing to participate in this type of intervention as opposed to individual therapy. Furthermore, many abused or neglected children present behavioral problems for which PTP have been shown to be effective (Lau & Weisz, 2003).

A number of studies have examined the efficacy of PTP within the context of abuse and neglect. MacLeod and Nelson (2000) conducted a meta-analysis on 54 selected programs aimed at preventing or treating child maltreatment. Among these, 5 PTP were for parents who abuse or neglect their child. Results showed positive effects (moderate) of PTP on parents' attitude and behavior and on children's placement. They concluded that PTP count among those effective programs for decreasing child maltreatment. The meta-analysis conducted by Lundahl, Nimer, and Parsons (2006) is based on 23 studies examining the efficacy of PTP among parents who either abuse and/or neglect their child or who are at high risk of abuse or neglect. This meta-analysis suggests that PTP have a moderate yet significant positive effect on parents in terms of emotional adjustment, attitudes towards children, childrearing behaviors, abuse or neglect. Other literature reviews report similar findings, suggesting that PTP are associated with improvement in parents' behavior (Barth et al., 2005; Corcoran, 2000; Herbert, 2000; Lundahl, Nimer et al., 2006; Wolfe & Wekerle, 1993). Behavioral PTP appear to be more effective than programs that emphasize communication and emotional relationships between parent and child (Lundahl, Nimer et al., 2006).

However, the lack of methodological thoroughness in reviewed studies raises concerns. Barth et al. (2005) have observed that the most often used PTP in child protection services have not been evaluated and that evaluation studies that have been conducted present significant methodological limitations. For example, only 8 out of the 23 studies reviewed by Lundahl, Nimer et al. (2006) in their meta-analysis used a control group. This has led Barth et al. (2005) to recommend that evidence-based PTP, proven to change parenting practices, should be preferred even if there is no direct validation in situations of family neglect or abuse. However, moving from an efficacy trial to an effectiveness trial presents specific challenges (Hutchings, Bywater, Eames, & Martin, 2008). The goal of the present study consists in assessing the effectiveness of a PTP (Incredible Years, Webster-Stratton & Hancock, 1998) implemented with neglectful parents in a child protection service versus parents on a waiting list.

"Incredible Years" is a PTP that has been proven efficacious with children displaying behavior problems (Barth et al., 2005; Hutchings & Lane, 2005; Normandeau & Venet, 2000; Taylor, Schmidt, Pepler, & Hodgins, 1998; Webster-Stratton, 1984, 1996; Webster-Stratton & Hammond, 1997; Webster-Stratton & Hancock, 1998; Woolgar & Scott, 2005). Webster-Stratton recommended that this program might be offered to families with a history of abuse or neglect (Webster-Stratton & Reid, 2005). Its efficacy in such a context has been suggested in a research-based context with neglectful families (Hughes & Gottlieb, 2004). The study conducted by Hughes and Gottlieb (2004) indicates that the participation of maltreating mothers in the Incredible Years program is associated with improved parental involvement in children's play. However, parents' participation in the intervention is not associated with changes in the child's autonomy. These results were observed in a context where the intervention was limited in time, that is, 8 meetings. Moreover, groups were led by only one facilitator from outside the service. A true test for this PTP would be to examine its effectiveness in clinical or community settings with trained facilitators from the agency. The purpose of this study is to evaluate the effectiveness of "Incredible Years" in a child protection service, with trained professionals from the agency acting as facilitators for parent groups. More specifically, this study aims to evaluate the effectiveness of this program in improving: (1) parenting practices; (2) parents' feeling of self-efficacy and; (3) parents' perception of their child's behavior.

Table 1
Participants' selected socio-demographics at baseline.

Variable	Treatment group <i>n</i> = 26	Control group <i>n</i> = 9	<i>P</i>
Age of parent (years)			
Mean ± <i>SD</i>	37.3 (4.2)	35.6 (3.3)	<i>ns</i>
Age of target child (years)			
Mean ± <i>SD</i>	8.5 (1.3)	8.7 (1.8)	<i>ns</i>
Target parent's sex (%)			
Female	80.8	77.8	<i>ns</i>
Male	19.3	22.2	<i>ns</i>
Target child's sex (%)			
Female	30.7	33.3	<i>ns</i>
Male	69.3	66.6	<i>ns</i>
Siblings (number of children)			
Mean ± <i>SD</i>	1.9 (1.3)	1.7 (1.2)	<i>ns</i>
Family type (%)			
Two parents	34.4	36.8	<i>ns</i>
Single parent	40.4	39.6	<i>ns</i>
Reconstituted	25.2	23.6	<i>ns</i>
Main source of household income (%)			
Welfare	65.4	55.5	<i>ns</i>
Work	23.1	22.2	<i>ns</i>
Other	11.5	22.3	<i>ns</i>
Parent's highest level of education			
Mother (%)			
Elementary school	46.2	44.4	<i>ns</i>
High school	23.1	11.1	<i>ns</i>
College	14.4	22.2	<i>ns</i>
Grad school	7.7	11.1	<i>ns</i>
Unknown	0.6	11.2	<i>ns</i>
Father (%)			
Elementary school	30.8	22.2	<i>ns</i>
High school	23.1	22.2	<i>ns</i>
College	11.5	11.1	<i>ns</i>
Grad school	0	11.1	<i>ns</i>
Unknown	34.6	33.4	<i>ns</i>

ns: non-significant ($p > .05$).

Methods

Sample

Forty-five parents (37 mothers and 8 fathers) who were monitored at the Montreal Youth Center (Centre Jeunesse de Montréal) for their child neglecting behaviors were identified by their caseworker to participate in Incredible Years. The first 36 parents who registered were assigned to the intervention group (received PTP plus regular services). Nine parents who registered later were put on the waiting list for the next year. They made up the control group (received regular services during the study period). Families were eligible to participate in the study if (a) the target child was aged between 5 and 10; (b) the parent did not present symptoms of mental illness, drug abuse, severe mental disability or if so, these conditions were under control and; (c) the parent had custody of the child at least 1 weekend every second week.

Five parents from PTP group dropped out (schedule conflict related to work or other responsibilities) and 5 parents became ineligible (mental health disorder, lost child custody, drug abuse not under control) before program week 5. When comparing program completers and dropouts, no significant differences on demographic data and on baseline variables were found when using Chi-square and *t* tests. The final sample consisted in 35 parents divided among 2 groups: (1) PTP group having participated in the Incredible Years Program ($n = 26$); (2) and the Control group ($n = 9$).

At baseline, there were no significant differences in terms of family demographics across study groups (Table 1). Average age for mothers was 34.3 years whereas the average age for fathers was 40.5 years. Many parents presented a drug abuse (15.4%) or mental health (30.8%) problem under control. The mean age of target children was 8.6 years. 68.6% were boys and they had an average of 1.8 siblings. Most target children presented one or several of the following problems: oppositional defiant disorder (36.4%), learning disabilities (27.3%), anxiety (36.4%) or attention deficit–hyperactivity disorder (9.0%). The

sample consisted in single parent families (40.0%), two-parent families (35.6%), or reconstituted families (24.4%); 44.8% of mothers and 37.1% of fathers had at least completed high school. The main source of income of parents was welfare (62.2%) and the household income stood at less than \$14,999 in 48.9% of cases. At the time of their registration in the PTP, parents had been receiving services from child protection services for 23.4 months on average.

Procedures

Ethics. The Institutional Review Board from the Montreal Youth Center (*Comité d'éthique à la recherche du Centre Jeunesse de Montréal*) approved the study. All the participants gave a written consent.

Recruitment and assessments. Parents were individually contacted by one facilitator who explained the PTP, identified parents' needs and briefly explained the research process. Trained research assistants then conducted in-home visits to explain the study in more detail and ask parents to sign the consent form. During the same visit, the pre-test data were collected. The post-test assessments were collected during a home visit once the PTP had ended (pre- and post-test were on an average, 19.12 weeks ($SD = 1.75$ week) apart). Parents in the control group were contacted directly by a member of the research team after obtaining caseworker's authorization and were submitted to the same pre- and post-test assessments (pre- and post-test were on an average, 16.74 weeks [$SD = 1.33$ week] apart).

Intervention. The Incredible Years Program ([Webster-Stratton & Hancock, 1998](#)) was selected because it is recognized for the quantity, quality and scope of research conducted as well as its reported positive impacts on both parents and children. Moreover, manuals describing program content, specific objectives, meeting activities and parent-child interaction vignettes are available to facilitate discussions. All the material was translated into French by the research team. The program targets groups of parents (7–16 parents per group) and extends over a period of 16 weeks with 2-h weekly meetings. The goals of the PTP are: (1) to develop a harmonious parent-child relationship; (2) to support parents in learning effective practices consistently applied; (3) to improve problem solving and communication skills within families and with teachers. Each group was facilitated by two psychosocial or rehabilitation workers from the *Centre Jeunesse de Montréal* who used a collaborative approach with the parents, encouraging them to discuss their parent-child interaction and to problem-solve. The topics included: playing with your child, using praise and reward, limit setting, ignore, time out and other consequences to encourage good behavior and reduce misbehavior, problem solving with the child and adults, and supporting the child education.

Facilitators. A total of 6 facilitators were involved in leading the 5 groups of parents. Three were professionals with a psychoeducational background, and 3 were social workers. All had participated in a 3-day training program and were supervised by an experienced facilitator from the *Université de Montréal*.

Program integrity

Program integrity. In order to assure program integrity, the facilitators were trained and supervised; they received administrative support and technical assistance. Facilitators were required to follow a detailed protocol specifying the content of each session, videotape vignettes to be shown, topics to be explored, activities to be led, and homework to be assigned to the parents for the week and handouts to be distributed. A weekly checklist was completed by the facilitators following each session, group process recorded (e.g., vignettes shown, homework discussion, handouts distributed) and intervention content completed. Checklists were completed by each facilitator and handed in to the research coordinator. This allowed the research team to ensure control of program integrity.

Attendance. Parents in the intervention group attended an average of 12.6 ($SD = 2.5$) out of the 16 planned sessions. Of the 26 parents in the intervention group, 19 (73.1%) participated in 12 or more sessions, 6 (23.1%) participated in 8–11 sessions, and 1 (3.8%) participated in fewer than 8 sessions. Whenever a parent missed a session, he or she was invited to participate in a make up session before the following group meeting. During that individual meeting with a facilitator, a shorter version of the missed session was presented.

Measures

Parenting Practice Interview (PPI; Webster-Stratton, 1998). PPI measures the use of 7 parenting practices among parents: harsh and inconsistent discipline (e.g., If your child hit another child, how likely is it that you would discipline him/her by raising your voice-scolding or yelling), positive verbal discipline (e.g., If your child hit another child, how likely is it that you would discipline him/her by discussing the problem with your child or ask questions), physical punishment (e.g., If your child refused to do what you wanted him/her to do, how likely is it that you would give your child a spanking), appropriate discipline (e.g., If your child hit another child, how likely is it that you would give him/her a brief time out away from family), praise and incentives (e.g., How often do you praise or compliment your child when s/he behaves well or does a good job), clear expectations (e.g., How much do you agree with the following statement: I have made clear rules or expectations for my child about chores), and monitoring (e.g., About how many hours in the last 24 h did your child spend at home without adult supervision, if any). Parents were asked to answer questions about their use of each of these parenting practices on a 7-point Likert-type scale for 80 items (alphas between .62 and .82).

Table 2
Results of Group (PTP, control) by time (pre- and post-test) analysis of variance for parenting practices.

Variable	Pre-test		Post-test		Source			Post hoc ^d	
	PTP ^b M (SD)	C ^c M (SD)	PTP M (SD)	C M (SD)	Group ^d (A)	Time ^e (B)	A × B	PTP × B	C × B
Harsh and inc. disc. ^f	3.13 (0.94)	2.59 (0.83)	2.78 (0.89)	2.81 (0.76)	0.62	0.42	8.53 [*]	11.77 [*]	1.32
Physical punishment ^f	1.57 (0.86)	1.32 (0.32)	1.33 (0.50)	1.70 (0.20)	0.10	0.27	4.85 [*]	2.55	2.40
Praise/incen. ^f	4.58 (0.98)	4.39 (0.79)	5.05 (0.76)	4.14 (0.70)	3.41	0.66	7.20 [*]	11.81 [*]	0.89
Clear exp. ^f	3.43 (0.70)	3.48 (0.84)	3.66 (0.57)	3.52 (0.81)	0.08	0.39	0.05		
Appropriate disc. ^f	4.49 (0.91)	4.54 (0.93)	4.87 (0.95)	4.25 (0.76)	0.70	0.22	12.70 ^{**}	14.41 ^{**}	2.26
Monitoring ^f	5.74 (0.73)	6.06 (0.77)	5.96 (0.69)	5.51 (0.83)	0.07	2.19	11.65 [*]	3.01	7.48 [*]
Positive verbal disc. ^f	5.19 (0.79)	5.36 (0.67)	5.57 (0.66)	4.75 (0.40)	1.71	1.29	24.14 ^{**}	10.01 [*]	9.03

^a Univariate analysis of variance.

^b $n = 26$.

^c $n = 9$.

^d $df = 1$.

^e $df = 1$.

^f The scale ranges from 1 to 7.

^{*} $p < .05$, variance.

^{**} $p < .001$, variance.

Parenting self-efficacy measure. Self-efficacy was evaluated with the Parenting Self-Agency Measure (PSAM; Dumka, Stoerzinger, Jackson, & Roosa, 1996; $\alpha = 0.70$) to which were added items adapted from the Maternal Confidence in Toddlerhood ($\alpha = 0.95$; test-retest = 0.87) by Gross and Rocissano (1988) and from Jones (2000) questionnaires. In total, the questionnaire counts 19 items related to the general confidence of parents (e.g., I feel sure of myself as a mother/father), their confidence at being able to set limits for their child's behavior (e.g., I would know how to react if my child was aggressive toward other children) or at being able to solve problems with their child (e.g., I can solve most problems between my child and me), and their confidence in more difficult situations (e.g., I can react positively with my child even if I feel frustrated or stressed). Parents were asked to rate their agreement on a Likert-type scale from 1 (strongly agree) to 5 (strongly disagree).

Eyberg child behavior inventory (ECBI) (Eyberg & Pincus, 1999). ECBI is designed to measure parents' perception of behavioral problems at home in children aged from 2 to 16. The questionnaire is composed of 36 items rated on two scales: (1) "frequency," where parents are requested to use a Likert-type scale from 1 (never) to 7 (always) to indicate how often the child behaves in this manner at home; and (2) "problem," where parents are asked whether or not this behavior is problematic according to them. ECBI scales correlate with independent observations, provide good internal consistency (frequency: .93; problem: .95) as well as a good test-retest reliability (frequency: .80; problem: .85).

Parent satisfaction questionnaire (Reid, Webster-Stratton, & Beauchaine, 2001). This questionnaire was used to measure parents' level of satisfaction at the end of the program. Parents indicated their satisfaction on a Likert-type scale in regard to: (1) their overall satisfaction; (2) program usefulness; (3) satisfaction with facilitator; (4) techniques' ease; and (5) techniques usefulness. Each of these scores ranged from 1 to 7, with 7 meaning a high level of satisfaction (α between .57 and .95).

Data analysis

Program effects were examined through a series of analysis of variance comparing PTP and Control groups with repeated measures at pre- and post-test. The effectiveness of the program is indicated by a significant group by time interaction for a specific outcome variable. When an interaction was observed, analyses of variance were performed for each group to identify the extent of change in each group. The other two effects are not a result of the intervention. A group effect indicates that groups of parents differ on that measure, while a time of measurement effect indicates that both groups have evolved in the same way over time. The effect sizes scores are reported. These scores are independent of sample size and allow to qualify the magnitude of the effect as small, moderate or large.

Results

Effects of intervention on parenting practices

Comparison of PTP and Control groups at pre-test showed no differences on the 7 subscales of the PPI. Analyses of variance comparing PTP and Control groups with repeated measures on each subscale of the parenting practice measure were conducted (Table 2). A group by time interaction effect was observed on 6 out of the 7 parenting practices from the PPI: harsh discipline [$F(1, 35) = 8.53$; $p < .05$, $\hat{\eta}^2 = 0.21$ (small)]; physical punishment [$F(1, 35) = 4.85$; $p < .05$, $\hat{\eta}^2 = 0.13$ (small)]; praise and incentives [$F(1, 35) = 7.20$; $p < .05$, $\hat{\eta}^2 = 0.18$ (small)]; appropriate discipline [$F(1, 35) = 12.70$; $p < .001$, $\hat{\eta}^2 = 0.28$ (moderate)]; monitoring [$F(1, 35) = 11.65$; $p < .05$, $\hat{\eta}^2 = 0.26$ (moderate)] and positive verbal discipline [$F(1, 35) = 24.14$; $p < .001$, $\hat{\eta}^2 = 0.43$ (large)]. Simple effects analysis further indicated that the PTP group improved significantly in the interval between pre- and post-test. Following the intervention, parents in the PTP group reported using less harsh discipline [$F(1, 26) = 11.77$; $p < .05$; $\hat{\eta}^2 = 0.26$ (moderate)], more praise and incentives [$F(1, 26) = 11.81$; $p < .05$; $\hat{\eta}^2 = 0.26$ (moderate)], more appropri-

Table 3

Results of Group (PTP, control) by time (pre- and post-test) analysis of variance for self-efficacy.

Variable	Pre-test		Post-test		Source		
	PTP ^a M (SD)	C ^b M (SD)	PTP M (SD)	C M (SD)	Group ^c (A)	Time ^d (B)	A × B
Self-efficacy	2.23 (0.57)	2.01 (0.52)	1.96 (0.65)	2.12 (0.61)	0.00	0.35	2.68

^a $n = 26$.^b $n = 9$.^c $df = 1$.^d $df = 1$.

ate discipline [$F(1, 26) = 14.41$; $p < .001$; $\hat{\eta}^2 = 0.31$ (moderate)], and more positive verbal discipline [$F(1, 26) = 10.01$; $p < .05$; $\hat{\eta}^2 = 0.23$ (small)]. Parents in the Control group reported no changes in these parenting practices, but decreased significantly in the interval between pre- and post-test on the monitoring scale. At post-test, they used less monitoring [$F(1, 26) = 7.48$; $p < .05$; $\hat{\eta}^2 = 0.18$ (small)] while PTP parents showed no difference. Even if a group by time interaction effect was observed for physical punishment, simple effects analysis did not indicate a decrease or an increase in either group [PTP: $F(1, 26) = 2.55$; $p = 0.12$; $\hat{\eta}^2 = 0.07$ (small); control: $F(1, 9) = 2.40$; $p = 0.13$; $\hat{\eta}^2 = 0.07$ (small)]. No significant changes between pre- and post-test [$F(1, 35) = 0.08$; $p = 0.78$; $\hat{\eta}^2 = 0.00$ (small)] or between groups [$F(1, 35) = 0.39$; $p = 0.54$; $\hat{\eta}^2 = 0.01$ (small)] were observed for clear expectations.

Effects of intervention on parents' self-efficacy

Comparison of PTP and Control groups at pre-test showed no differences on the measure of parenting self-efficacy. Analysis of variance comparing PTP and Control groups with repeated measures on parents' self-efficacy was performed (Table 3). Results indicated no significant difference in parents' self-efficacy feeling [$F(1, 35) = 2.68$; $p = 0.48$; $\hat{\eta}^2 = 0.15$ (small)] as a result of their participation to the PTP.

Effects of intervention on parents' perception of their child's behavior

Comparison of PTP and Control groups at pre-test showed no differences on the two ECBI subscales. Analyses of variance comparing the PTP and the Control groups with repeated measures (pre- and post-test) on the frequency of problems and number of problems scales of child's behavior were conducted (Table 4). A group by time interaction effect was observed on both scales of the ECBI problems: [$F(1, 35) = 9.32$; $p < .01$, $\hat{\eta}^2 = 0.21$ (small)]; frequency: [$F(1, 35) = 5.33$; $p < .05$, $\hat{\eta}^2 = 0.18$ (small)]. Further analyses indicated that, following the intervention, parents in the PTP group perceived that their child's negative behavior occurred less frequently [$F(1, 26) = 11.37$; $p < .01$; $\hat{\eta}^2 = 0.26$ (moderate)]. Furthermore, PTP parents reported that their child exhibited fewer problematic behaviors [$F(1, 26) = 21.94$; $p < .01$; $\hat{\eta}^2 = 0.40$ (large)]. Parents in the Control group perceived no change in terms of the number and frequency of negative behaviors in their child.

A clinical analysis of the change in each parent's score further confirms the program's clinical efficacy. Parents in the PTP group perceived that their child's behavior improved and registered below the clinical range at post-test (EBCI) in 19.2% of cases ($n = 5$) and improved while remaining above the clinical level in 11.5% of cases ($n = 3$). No parents in the PTP group reported a deterioration of their child's behavior during the period between the pre-test and the post-test. None of the parents in the Control group observed any improvement during the period between the pre- and the post-test. Quite to the contrary, one third of the parents in the Control group perceived a deterioration in their child's behavior during the time period between the two measures and scored above clinical range at post-test in 11.1% of cases.

Table 4

Results of group (PTP, control) by time (pre- and post-test) analysis of variance for the child's behavior.

Variable	Pre-test		Post-test		Source		Post hoc ^d		
	PTP ^b M (SD)	C ^c M (SD)	PTP M (SD)	C M (SD)	Group ^d (A)	Time ^e (B)	A × B	CAI × B	Gr C × B
Intensity	113.2 (40.3)	112.1 (36.5)	102.6 (39.2)	120.4 (42.1)	0.31	0.14	9.32**	11.37**	2.43
Problem	14.9 (8.6)	14.2 (6.9)	10.9 (9.5)	14.1 (7.6)	0.14	55.45*	5.33*	21.94*	0.01

^a Univariate analysis of variance.^b $n = 26$.^c $n = 9$.^d $df = 1$.^e $df = 1$.* $p < .05$.** $p < .001$.

Parents' satisfaction with PTP

Overall, parents' reactions to the PTP program were positive or very positive in 96.1% of cases. In a proportion of 88.5%, parents described as good or very good the benefits they obtained from their participation in the PTP and all parents would surely or strongly recommend the program to other parents. Parents also reported having great confidence (38.5%) or very great confidence (34.6%) in their ability to solve future problems with their child at home using the tools discussed during the PTP meetings. With regards to the group, 11.5% of parents reported that they felt the group provided little support, 42.3% felt that the group was quite supportive and according to 46.2% of parents, the group was very supportive. Furthermore, 84.6% of parents would like group meetings to continue. Parents stated that meeting content, parent-child role playing, group discussions, reminders as well as home play activities and other strategies were useful or very useful.

Discussion

The efficacy of the Incredible Years program in modifying parenting practices and children's behavior has been demonstrated on a number of occasions in families whose children are referred for behavioral problems (e.g. Barth et al., 2005; Hutchings & Lane, 2005; Normandeau & Venet, 2000; Taylor, Schmidt, Pepler, & Hodgins, 1998; Webster-Stratton, 1984, 1996; Woolgar & Scott, 2005). With this clientele, participation in Incredible Years is related to improvements in parenting practices and child behavior, as parents learn to use adequate reinforcement, and to use punishment consistently. The goal of the present study was to evaluate the effectiveness of this program in a child protection service with parents referred for child abuse or neglect. The rationale of this evaluation was that child abuse and neglect point to problems in parenting practices and that these practices have negative impacts on the child's behavior. This is the first situation where the effectiveness of Incredible Years is demonstrated among families referred to a child protection service for child abuse or neglect.

Findings of the present study show that the program has a positive impact on parenting practices and parents' perception of their child's behavior. Indeed, following their participation in Incredible Years, parents use less harsh discipline, more praise and incentives, more appropriate discipline and more positive verbal discipline. They also have better monitoring strategies versus the control group. Though the effect of the program on child abuse and/or neglect was not assessed, these results are promising as an improvement in parenting practices might lead to fewer situations of abuse or neglect (Gershater-Molko et al., 2002; Herbert, 2000). Furthermore, following their participation in this program, parents in this study observed fewer and less frequent disruptive behaviors in their child. Results also show that many of the parents who participated in the PTP perceived that their child grew out of the "clinical level" in regard to the number and the frequency of their behavior problems. This study asked parents to complete validated questionnaires about their child's behavior as in most similar studies. Parental reports may not be an objective measure of their child's behavior but they reflect the parents' perception of their child behavior. Previous studies have suggested that parents' perception of their child behavior is related to their use of parenting strategies (Miller, 1995; Murphey, 1992; Rubin & Mills, 1992). Improvements in the parents' perception of their child's behavior may thus be related to changes in parenting practices though more investigations about the mediating effect of parents' perceptions are needed.

Effects found in the present study are consistent with the results obtained in the context of behavioral disorders. A meta-analysis found a moderate effect size on parental adjustment and a large one on the child behavior, based on parental reports (Serketich & Dumas, 1996). Webster-Stratton, Reid, & Hammond, 2004 observed positive effects of Incredible Years on positive and negative parenting practices and on the child's behavior problems in a child behavior problem context. The present study observed changes in the same variables: parenting and parents' perception of their child's behavior. Effects found in the present study are also consistent with the results obtained by PTP in the context of child abuse and neglect. Indeed, two meta-analysis suggested that PTP have a positive effect on parents in terms of emotional adjustment, attitudes towards children, childrearing behaviors, abuse or neglect among families referred for abuse and/or neglect or at high risk of abuse or neglect (Lundahl, Nimer et al., 2006; MacLeod & Nelson, 2000).

However, the results of the present study do not show any effect of the program on the expression of clear expectations or on parents' self-efficacy. It is believed that more time may be required before change can be observed on these outcomes, especially among parents who have a history of difficult parent-child interactions. Parents may be expected to develop confidence in their parenting skills over time, as they experience more successful interactions with their child. The effect of the PTP on physical punishment is small and not visible in the post hoc analysis. Actually, the treatment group registered a subtle decrease of this practice while an increase appeared among the control group. The extremely low use reported by parents for this scale may be related to their situation with the child protection service.

Following Barth et al.'s (2005) recommendation, the present study assessed the effectiveness of a PTP that had been proven effective with other clientele. Barth et al. (2005) recommended the use of such programs "as the most promising starting point for the rapid development of effective intervention with maltreating families." In contrast to previous studies, the present study compared a PTP group to an equivalent group of parents, expected to be involved in the program the next year. Furthermore, even if the ultimate goal of PTP is to support children's development, the evaluative studies of PTP in a protective service context almost never assess its effects on children. Though relying on parental reports, the present study suggests a decrease in the children's behavior problems at home. It would be interesting in future studies to assess the effect of PTP on children's behavior in other contexts such as the school and using other forms of evaluation such as observational measures.

Furthermore, the originality of this study stands in the fact that the program was led by many different facilitators, all professionals working at a child protection service. Despite the variety of facilitators and the implementation of the PTP in less controlled conditions than in a research clinic, results are very encouraging. This is an effectiveness evaluation, bringing to light the impact of the Incredible Years PTP in a real world setting; it is not an efficacy evaluation that would show its impact under controlled conditions. The program obtained promising results in this dissemination context. Moving from an efficacy study to an effectiveness study presented several challenges (e.g., maintaining integrity and effectiveness of the program) that were addressed successfully in this study. Our observations in this respect may guide the development of future effectiveness studies.

Several components of the implementation process may have contributed to the program integrity. First, keeping in mind that the main objective was to ensure the program's success, caseworkers, administrators and researchers worked as a team. All facilitators were trained in the collaborative approach and participated in regular clinical supervisions with a member of the University team. The administrators were eager to support the program implementation by providing sufficient resources: allowing facilitators the necessary time for recruiting families and preparing sessions, allowing reorganization of work schedules, setting regular organizational meetings to solve practical problems as they occurred. Finally, facilitators accepted to fill out weekly checklists that allowed assessment of program integrity.

Building successful partnerships between researchers and services is a key ingredient to a successful implementation of a new intervention and may take several forms (Hutchings et al., 2008). In this particular case, thanks to the strong commitment of all toward the program, researchers, administrators and facilitators compromised as required to make this implementation a success. A liaison committee was set up to problem-solve as problems arose.

Furthermore, the characteristics of the program itself contributed to making this experience a success. Content structure, availability and readiness to use all necessary materials (e.g., videotapes, weekly home activities, handouts), the complete and specific manual (describing the outlines of each session) all played a role in maintaining a high level of clinical integrity and ensuring program effectiveness. Different tools were used to monitor implementation integrity of the program at each session.

Not all of these components were appropriately measured and it is therefore difficult to assess their unique contribution to the success of the intervention. Further studies should evaluate the moderating role of program integrity in the effectiveness of the program. For example, future effectiveness study may evaluate more closely the collaboration between researchers and services namely with regards to: planning and shared management, contributions and requirements from partners, mutual understanding of research issues and clinical requirements, perception of long-term benefits of research by service providers to improve the capacity of the organization to deliver evidence-based services.

Evaluating a program implemented in a clinical setting is a challenge. Thus, the present study presents some limitations related to such issues. First, only self-report measures by the parents were used with no observational evaluation of parenting practices and children behavior. Secondly, no measure of child abuse and neglect by parents at post-test were included. Further studies should assess the impact of the program in relation with the history of abuse and neglect in families: Was the file closed after participation in the program? Were the parents referred to other services? Thirdly, no information about the long-term benefits of the program was collected. Fourthly, 10 out of the 36 parents involved in the program dropped out. Even if this is common in child protection service, it would be interesting to gather more information about PTP dropouts in order to establish retention mechanisms. Finally, the number of parents involved in the study was relatively small, especially in the control group. It would be interesting to reproduce the study with a greater number of families to allow the analysis of various factors that could moderate the program effectiveness such as voluntary or non-voluntary participation of parents, parents' mental health, type of child care, or motivation of the staff.

In spite of such limitations, the implementation of "Incredible Years" in a child protection service proved beneficial for both parents and children. The next step in implementing the program is to maintain the integrity of the program when fading the role of the research team and increasing the autonomy of the implementation team within the agency. The next step in evaluating the program in this context is to increase the number of participants, to gather data from different sources and to describe the trajectories of families in child protection service after the completion of the program.

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