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# **Parent Training Interventions for Children and Adolescents with Aggressive Behavioral Problems**

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Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.73541>

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## **Abstract**

Children who display early disruptive and aggressive behavior are also at greater risk for delinquency, mood and anxiety disorders, and substance use in the long term. As is the case for many forms of childhood psychopathology, a number of factors are associated with the emergence of aggressive and disruptive behavior, including family factors. Indeed, conduct problems during childhood are usually associated with peculiar parenting practices, such as increasingly coercive cycles of harsh parenting and noncompliance exhibited by child; insensitive and nonresponsive parenting; inconsistent, severe discipline and vague commands and directions; lack of parental warmth and involvement; and absence of parental monitoring and supervision. That is why behavioral parent trainings (BPTs) represent one of the gold standard interventions for conduct problems. The main goal of BPT is to decrease coercive interchanges and, consequently, children aggressive problems by teaching parents strategies in order to apply a more effective discipline. Therefore, the putative mechanism for change in youth behavior in BPT is change in parent behavior. Some of the most employed parent training interventions for aggressive behavior problems are presented.

**Keywords:** child aggressive problems, family contextual factors, parenting practices, treatment, behavioral parent training

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## **1. Introduction**

Children who display early disruptive and aggressive behavior are also at greater risk for delinquency, mood and anxiety disorders, and substance use in the long term. Moreover,

longitudinal studies indicated that children with conduct problems initiated in childhood are at heightened risk for exhibiting persistent criminal behavior into adulthood. The presence of neurological deficits, which lead to difficulties managing peer conflicts, regulating emotions, and controlling impulses, and families with longstanding history of antisocial behavior prevents these youth from making important life transitions serving to further entrench them into a criminal lifestyle [1].

As for many forms of childhood psychopathology, a number of factors are associated with the emergence of aggressive and disruptive behavior. A contextual social-cognitive model has been employed to summarize the empirically identified risk factors for conduct problems in children [2, 3]. A set of neurobiological, family, peer, and social risk factors appear to be involved in the etiology of aggressive behavior problems.

There are several prenatal factors that can have an effect on a child's developing brain and result in later conduct problems, including in utero drug and tobacco exposure and severe maternal nutritional deficiencies [4, 5].

Furthermore, child temperaments characterized by a "lack of control" (e.g., short attention span, negativism, restlessness, and emotional lability [6]), high emotional reactivity levels, difficult temperaments in general, and fearful and highly active children [7] are associated with behavior problems. Besides, genetic effects on children's development of conduct problems are primarily manifested in interaction with environmental risk factors, such as child maltreatment, marital problems, and parental substance abuse [8].

The contextual social-cognitive model also focuses on children's sequential cognitive processing and on contextual parenting processes; it assumes that aggressive children have distortions in their social-cognitive appraisals and deficiencies in their social problem-solving skills and that their parents have deficiencies in their parenting behaviors.

Aggressive children have cognitive distortions and deficiencies at two stages: appraisal and problem solution. Firstly, children have difficulty encoding incoming social information and in accurately interpreting social events and others intentions. Aggressive children tend to approach social situations with a hostile attribution bias: they assume the intention of others' behavior is provocative and hostile in nature [9]. Furthermore, aggressive children tend to generate maladaptive solutions for perceived problems and have nonnormative expectations for the likelihood of success of aggressive and nonaggressive solutions to their social problems. Specific deficiencies have been noted in the solutions aggressive children offer in social situations: they often generate aggressive strategies because they expect that aggressive behavior will lead to the desired outcome.

Conduct problems have been shown to be influenced by the social context around the child, and the manifestations of the conduct problems directly affect family members, peers, and other persons in the children's social context [10].

## **2. The role of family contextual factors in aggressive behavior problems**

A wide range of family contextual factors lead to elevated risk of child conduct problems. Conduct problems during childhood are usually associated with characteristic family features. Particularly, they have been linked to poverty [11]; parent criminality; parental psychopathology, such as substance use, paternal antisocial personality disorder, or maternal depression [11]; marital conflict [12]; single and teenage parenthood [13]; stressful life events [11]; as well as insecure attachment in infancy and in preschool age, particularly disorganized attachment and avoidant attachment [14–16]. These familial risk factors can exert an effect on parenting practices, which in turn can exert an effect on child behavior.

The presence of parental psychopathology influences how parents perceive their child behavior and their educational practices. For example, mothers who suffer from depression see their child behavior as more upsetting during the worst period of depression [17]. Higher levels of maternal depression also predict caregivers' use of inconsistent discipline, and the use of inconsistent discipline predicts aggressive behavior in children [18]. Studies demonstrated that maternal psychopathology is associated to a change of the perception of child behavior that is interpreted as deliberate and malevolent, and this could lead to the greater use of harsh discipline, which aggravate children behavioral problems.

Disruptive and aggressive behavior problems are associated with peculiar parenting practices. Parenting practices that have been associated with conduct problems in childhood include, as described by Patterson [19], increasingly coercive cycles of harsh parenting and noncompliance exhibited by child, beginning in the preschool/toddler years, particularly for children who display challenging and difficult temperament styles. It is common in insensitive and nonresponsive parenting at age 1, with reliability and pacing of parental reactions not adequately meeting the child's needs. Inconsistently, severe discipline, as well as confusing or vague commands and directions, also characterizes parenting practices. Distinct lack of parental warmth and involvement and absence of parental monitoring and supervision represent risk factors for aggressive problems especially as children mature into adolescence [20]. Besides, the associations between child conduct problems and parenting factors are bidirectional, as the behavior and temperament displayed by the child can also affect the behavior the parent adopts [21]. For example, Patterson's coercion model suggests that both parent and child are active participants in their interactions [22], and the model proposes a four-step process of escape conditioning [23]. At first, the parent commands the child to perform a behavior or scolds the child for their misbehavior. Then, the child responds to the parent's request with an aversive behavior. Step 3 is the stage where the negative parent-child interaction can occur: if the parent stops the request, the child has escaped from the parent's request. Lastly, the child withdraws their aversive behavior almost immediately after the parent terminates their request, thus reinforcing the parent's withdrawal of the request.

Several studies point out that affective quality of parenting affects the quality of development on a prosocial, moral, and educational level [24, 25].

In an interesting recent longitudinal study [26], the development of aggressive behavior at the age of 8 was predicted by the appearance of similar early manifestations during early childhood, and this relationship was clearly mediated by the ways in which the mother tried to modulate and handle this child's behavior since its onset, at around 2 years of life. In the insecure dyads, the mother tended to assert her power and control through coercive educative methods in order to manage the child's disruptive behavior. In the secure dyads, instead, in the face of similar dysregulated behavior of the child, the mother activated responsive behaviors, without the need to take control of them or to assert her power in a coercive way.

The ability to give rules, structures, and boundaries, linked to a good affective sensitivity and responsiveness (sensitive discipline), is the focal component of parenting: connected to each other, they contribute to the development of a harmonious self-organization of the child, interacting with his temperament and his basic resources. As confirmed by several studies [27, 28], the individual and environmental factors interact with each other, and the context in which the child grows can act as a detonator or as a protective factor against possible neurobiological vulnerabilities. A "difficult" temperament does not necessarily negatively affect the quality of development, but acts in interaction with the environment by increasing child's permeability to the influences of his context [29].

The task of developmental clinic psychology, with the strict contribution of the research, is intervening to reduce these possible escalations, in the interaction between the neurobiological vulnerability of the child and the parent's mental state, with appropriate programs of proven effectiveness.

### **3. Behavioral parent training**

Parent training programs, which represent one form of parental intervention, are based on the premise that parenting practices contribute to the genesis, progression, and maintenance of both externalizing and internalizing problems. Competencies related to the self-regulation of emotion, cognition, and goal-directed behavior are shaped through repeated transactions between children's biological characteristics and the social contexts in which they develop [30], especially the parent-child relationship. It is thought that parenting practices control variables for child behavior patterns and may serve to potentiate the expression of biological vulnerabilities and in doing so enhance risk that is carried forward across the life span [31].

From a theoretical perspective, BPT descends from the social interactional model, which was proposed by Patterson and his colleagues to explain how parents can shape externalizing problems of their children and adolescents [32].

As highlighted by Kaminski and colleagues in a review [33], BPTs often share a range of common contents. They usually focus on child development knowledge and care, in order to give parents information about how to provide appropriate physical care and environment and

information about typical child behavior and development. Another crucial component concerns the importance of positive and non-disciplinary interaction with children: parents are taught to use adequate strategies to promote positive parent-child interactions, such as demonstrating enthusiasm, following child's interest, and providing appropriate attention. During BPTs, parents also learn how to respond sensitively to child's emotional and psychological need and to provide developmentally appropriate physical contact and affection; emotional communication is an important component too: parents are trained to use communication skills (e.g., active listening), to help children identify and express emotions. Parent training interventions largely focus on disciplinary communication and behavior management: so, parents learn to give clear and developmentally appropriate directions, to set limits and rules, and to state behavioral expectations and consequences; they are also taught to use adequate discipline strategies, monitoring and supervision practices, specific reinforcement, and punishment techniques. Parents should be trained to teach children to share and cooperate, use good manners, and get along with parents, siblings, and adults. Finally, BPTs focus on promoting children's cognitive and academic skills.

Behavioral parent trainings are usually group interventions. The group setting allowed parents not to feel alone, blamed, criticized, or judged; they feel accepted and supported, which enable them to reflect upon their parenting approaches and to be open to new parenting practices. The group offers behavioral strategies and provides a collaborative, supportive context within which parents can express themselves and change. The group process promotes the parents' ability to reflect on their histories and on their particular parenting styles. It invited them to disclose their thoughts, feelings, and behaviors about parenting and examine those of their children as they discussed various aspects of their parenting and of their parent-child relationships [34].

Therapeutic alliance is crucial for successful parent training interventions, and group's leader behavior plays a key role. Indeed, leader's positive behaviors predicted change in parent's positive behaviors toward children [35]. Specifically, leader praise and reflective behaviors are demonstrated as important categories because of their impact on the very same parent behaviors. The level of leader praise significantly predicts change in the parental use of praise: the more praise modeled by the leader to parents in the group, the more likely parents use praise with their children at home [36]. Especially when parents are sharing their experiences, the group leader should highlight and praise parents' improvements, even if they are small, in order to create a supportive context and let parents be able to express themselves.

#### **4. Parent training interventions for disruptive and aggressive behavior problems**

Behavioral parent training (BPT) has been studied with rigorous research designs and is recognized as the leading intervention strategy for disruptive and aggressive behaviors (for a review see [37]). Some of the most employed parent training interventions for aggressive behavior problems are presented below.



#### 4.1. Coping Power Program

The Coping Power (CP) Program is a multicomponent treatment program, delivered in a group setting, and was developed using a contextual social-cognitive model as a conceptual framework for identifying intervention objectives [3]. The contextual social-cognitive model focuses on the contextual parenting practices and on children's sequential cognitive processing in the development and rise of children's behavioral problems. The CP Program includes a CP-child component, which consists in 36 group sessions and 16 parents' sessions, both delivered over 12 months. Parents are met in groups of five families; typically, only one parent per family joins the groups. The child and his/her parent received the treatment on the same day.

Researches on risk factors within the contextual social-cognitive model have led to the development of specific modules within the CP Program, with a structured manual. The CP-child component focuses on children's ability to pursue long-term and short-term goals and their academic and study abilities. Children learn to recognize the emotions and their physiological and cognitive features, mainly anger, and to manage anger arousal (using self-statements, distractions, and relaxation). Children also improve their perspective talking skills, attribution retraining, and social problem-solving skills. Finally, children are coached to use strategies in order to cope with peer pressure and make new friend, avoiding deviant peer groups.

The CP-parent component aims to increase positive parental attention and reward appropriate child behaviors. Parents learn to ignore minor disruptive behaviors, to give effective instructions, and to establish adequate rules and expectations for their children at home. Parents are also taught to use efficient consequences to negative child behaviors. The CP Program aims to empower family communication and reduce parental stress. Specifically, parents are taught principles of social learning theory and a description of how continuous exposure to negative social information maintains unhelpful emotion and negative behavior patterns. Instruction is provided as to cognitive approaches to track and alter dysfunctional thoughts that contribute to negative parenting patterns and to functional thoughts that may contribute to alternative positive parenting approaches to emotion regulation. Moreover, parents are instructed on skills to effectively ignore minor disruptive behavior, give effective instructions, and establish rules and expectations; they are instructed on approaches to punishment that facilitate appropriate social and emotional development. Information and rationale to devalue physical punishment are provided and discussed. Parents learn strategies to implement time-out, privilege removal, work chores, and "total reward shutdown" for negative child behavior. Finally, parents of children with aggressive/disruptive behavior experience high degrees of stress and disproportionate life challenges. The development of effective strategies to manage stress and cope with life challenges provide a "base" from which parenting strategies can be developed. In these sessions parents are taught strategies to regulate their emotions, ways to relax, and approaches to organize their time.

Numerous studies demonstrated the efficacy of the Coping Power Program in reducing disruptive and aggressive behaviors in children and that this reduction is maintained at follow-up evaluations [38–40].

## 4.2. Incredible years

The Incredible Years (IY; [41, 42]) includes three different but linked evidence-based programs: the parents, the teachers, and the children's series. Their goal is the promotion of social and emotional skills, as well as the prevention and treatment of conduct problems.

The IY BASIC Parent Programs [43] are addressed for parents of children of different ages, from babies (6 weeks–1 year) to school-age (6–12 years). All these programs include age-appropriate examples of culturally diverse families and children with different temperamental features. The IY BASIC Parent Programs train parents in child-directed play skills, praise, and rewards, limit setting, and how to handle misbehavior. Parents are trained to increase the use of positive and consistent strategies in order to strengthen children's prosocial behaviors and social skills. These programs are offered weekly for 9–20 sessions to groups of 8–12 parents; they emphasize developmentally age-appropriate parenting skills that help children accomplish key developmental milestones. The main goals of the programs include the promotion of parent skills and the empowerment of family's relationship by increasing positive parenting, parent-child attachment, and confidence about nurturing; parents also learn to use child-directed play interactions to increase children's social-emotional, academic, verbal, and persistence skills. The program proposes to reduce harsh and physically violent discipline and increase positive discipline strategies such as ignoring and redirecting, logical consequences, time-out, and problem-solving. The IY BASIC Parent Programs highlight the importance of increasing family assistance systems, as well as the empowerment of home-school alliance and parents' participation in school-related activities.

Furthermore, there are two additional parenting programs addressed for specific populations [44]. The ADVANCE parenting program delivered after conclusion of the BASIC preschool or school-age programs was developed for particular high-risk and designated populations and focuses on parents' interpersonal risk factors. The School Readiness Program for children aging 3–5 years is a brief prevention program designed to teach parent's academic, social, and emotional coaching and strategies to help children develop preliteracy competencies.

The efficacy of the IY BASIC Parent Programs for children with aggressive behavior problems has been demonstrated in a large number of studies [45, 46]. Other studies [47] also indicated the additive benefits of the ADVANCE parenting program on children's prosocial solution generation and parents' marital interactions. Several studies have also shown that IY treatment effects are durable 1–3 years posttreatment [48].

## 4.3. Triple P: Positive Parent Program

Triple P (Positive Parenting Program) is a multilevel, preventively oriented, parenting, and family support strategy developed by Sanders and colleagues at the University of Queensland in Brisbane, Australia [49, 50]. The Triple P's purpose is the prevention of behavioral, emotional, and developmental problems and child maltreatment by increasing family protective factors and reducing risk factors related with child abuse. The program aspires to enhance the knowledge, abilities, self-esteem, independency, coping skills, and resilience of caregivers and to encourage caring, positive, non-violent, and low-conflict environments for children and young people.



The Triple P also promotes children's social, emotional, language, intellectual, and behavioral skills through positive parenting practices. The program targets different developmental periods, from infancy, toddlerhood, and preschool age to preadolescence and adolescence.

The program also includes five levels of intervention. The first one is the Universal Triple P, a media-based parenting information campaign; the second level is the Selected Triple P which is addressed for parents with specific concerns about their children's behavior or development. Primary Care Triple P is a narrow-focus parenting skills training for parents who require consultations or active skills training. The fourth level includes the Standard Triple P, Group Triple P, Self-Directed Triple P, which are broad-focus parenting skills training, and typically targets parents of children with more severe behavior problems. Finally, there is the Enhanced Triple P, a behavioral family intervention, specifically addressed for parents of children with concurrent child behavior problems and family dysfunction.

Five core positive parenting principles are used in Triple P to address specific risk and protective factors known to promote positive developmental and mental health outcomes in children and reduce child maltreatment: developing positive relationships, encouraging desirable behavior, teaching new skills, teaching new behaviors, and managing misbehavior.

#### **4.4. Parent-Child Interaction Therapy**

Parent-Child Interaction Therapy (PCIT; [51]) is a brief and effective intervention for young children with conduct problems. PCIT is an empirically supported treatment [52] involving two distinct stages. Child-Directed Interaction (CDI), based on attachment theory, was designed to coach parents to establish tender and sympathetic interactions with their children, and Parent-Directed Interaction (PDI), based on social learning theory, was designed to teach parents to monitor and employ consequences to modify child's negative behaviors. In PCIT, parents learn specific skills that foster a close, secure relationship with their child, as well as skills that facilitate constructive, consistent, and predictable limits and discipline.

In the first phase, CDI, parents are taught to use traditional play therapy skills while they play with their child, with the goals of strengthening the parent-child relationship, building the child's self-esteem, and increasing the child's prosocial behaviors. In the second phase, PDI, parents learn behavior modification principles and are guided in the use of specific techniques such as giving effective commands and using time-out.

#### **4.5. The Connect Program**

The Connect Program [53] is a manualized attachment-focused program for parents of adolescents who engage in aggressive, violent, and antisocial behavior. Parents attended weekly 1 h group sessions for 10 weeks. Each session of the Connect Program begins with the introduction of an attachment principle that captures a key aspect of the parent-teen relationship and common parenting challenges. The main principles of the Connect Program are the following: (a) attachment is for life, (b) conflict is part of attachment, and (c) understanding, growth, and change begin with empathy. The program intends to enhance recognition that attachment needs continue throughout life but are expressed differently as children develop; consequently,

parents develop skills in reframing children's behavior in terms of their developmental level and attachment needs. The Connect Program also intends to enhance recognition and acceptance of conflict as a normative part of relationships, particularly during adolescence, which often communicates attachment needs. Parents develop skills in regulating affect, maintaining connection, and negotiating in the face of conflict. Moreover, the Connect Program highlights the crucial role of empathy for children and parents, and parents learn skills in empathic listening with others in conflict situations.

In order to show the principle and build parenting skills and knowledge, the program uses role-playing and reflection exercises. Precisely, the Connect Program focuses on the empowerment of abilities related to the essential components of secure attachment: parental sensitivity, partnership and mutuality, parental reflective function, and dyadic affect regulation.

Two pilot studies of the Connect Program with parents of adolescents referred for serious antisocial and aggressive behavior revealed significant pre- to posttreatment reductions in youth's internalizing and externalizing problems [54, 55].

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## References

- [1] Moffitt TE. Life-course-persistent versus adolescence-limited antisocial behavior. In: Cicchetti D, Cohen DJ, editors. *Developmental Psychopathology: Risk, Disorder, and Adaptation*. Hoboken, NJ: John Wiley; 2006. pp. 570-598
- [2] Matthys W, Lochman JE. *Oppositional Defiant Disorder and Conduct Disorder in Childhood*. Oxford: Wiley-Blackwell; 2010
- [3] Lochman JE, Wells KC. Contextual social-cognitive mediators and child outcome: A test of the theoretical model in the coping power program. *Development and Psychopathology*. 2002;**14**(4):945-967
- [4] Brennan PA, Grekin ER, Mortensen EL, Mednick SA. Relationship of maternal smoking during pregnancy with criminal arrest and hospitalization for substance abuse in male and female adult offspring. *American Journal of Psychiatry*. 2002;**159**(1):48-54

- [5] Delaney-Black V, Covington C, Templin T, Ager J, Nordstrom-Klee B, Martier S, et al. Teacher-assessed behavior of children prenatally exposed to cocaine. *Pediatrics*. 2000;**106**(4):782-791
- [6] Caspi A, Henry B, McGee RO, Moffitt TE, Silva PA. Temperamental origins of child and adolescent behavior problems: From age three to age fifteen. *Child Development*. 1995;**66**(1):55-68
- [7] Colder CR, Lochman JE, Wells KC. The moderating effects of children's fear and activity level on relations between parenting practices and childhood symptomatology. *Journal of Abnormal Child Psychology*. 1997;**25**(3):251-263
- [8] Caspi A, McClay J, Moffitt TE, Mill J, Martin J, Craig IW, et al. Role of genotype in the cycle of violence in maltreated children. *Science*. 2002;**297**(5582):851-854
- [9] Lochman JE, Dodge KA. Social-cognitive processes of severely violent, moderately aggressive, and nonaggressive boys. *Journal of Consulting and Clinical Psychology*. 1994;**62**(2):366
- [10] Moffitt TE, Scott S. Conduct disorders of childhood and adolescence. In: Rutter M, Bishop D, Pine D, Scott S, Stevenson J, Taylor E, Thapar A, editors. *Rutter's Child and Adolescent Psychiatry*. 2008. pp. 543-564
- [11] Barry TD, Dunlap ST, Cotton SJ, Lochman JE, Wells KC. The influence of maternal stress and distress on disruptive behavior problems in boys. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2005;**44**(3):265-273
- [12] Wolfe DA, Crooks CV, Lee V, McIntyre-Smith A, Jaffe PG. The effects of children's exposure to domestic violence: A meta-analysis and critique. *Clinical Child and Family Psychology Review*. 2003;**6**(3):171-187
- [13] Cuffe SP, McKeown RE, Addy CL, Garrison CZ. Family and psychosocial risk factors in a longitudinal epidemiological study of adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2005;**44**(2):121-129
- [14] Greenberg MT, Speltz ML, De Klyen M, Endriga MC. Attachment security in preschoolers with and without externalizing behavior problems: A replication. *Development and Psychopathology*. 1991;**3**(4):413-430
- [15] Groh AM, Roisman GI, van IJzendoorn MH, Bakermans-Kranenburg MJ, Fearon R. The significance of insecure and disorganized attachment for children's internalizing symptoms: A meta-analytic study. *Child Development*. 2012;**83**(2):591-610
- [16] Fearon RP, Bakermans-Kranenburg MJ, van IJzendoorn MH, Lapsley AM, Roisman GI. The significance of insecure attachment and disorganization in the development of children's externalizing behavior: A meta-analytic study. *Child Development*. 2010;**81**(2):435-456
- [17] Querido JG, Eyberg SM, Boggs SR. Revisiting the accuracy hypothesis in families of young children with conduct problems. *Journal of Clinical Child Psychology*. 2001;**30**(2):253-261

- [18] Barry TD, Dunlap ST, Lochman JE, Wells KC. Inconsistent discipline as a mediator between maternal distress and aggression in boys. *Child and Family Behavior Therapy*. 2009;**31**(1):1-19
- [19] Patterson GR. Performance models for antisocial boys. *American Psychologist*. 1986;**41**(4):432
- [20] Reid JB, Patterson GR, Snyder J, editors. *Antisocial Behavior in Children and Adolescents: A Developmental Analysis and Model for Intervention*. Washington, DC: American Psychological Association; 2002
- [21] Fite PJ, Colder CR, Lochman JE, Wells KC. The mutual influence of parenting and boys' externalizing behavior problems. *Journal of Applied Developmental Psychology*. 2006; **27**(2):151-164
- [22] Capaldi DM, Chamberlain P, Patterson GR. Ineffective discipline and conduct problems in males: Association, late adolescent outcomes, and prevention. *Aggression and Violent Behavior*. 1997;**2**(4):343-353
- [23] Patterson GR, Reid JB, Dishion TJ. *Antisocial Boys: A Social Interactional Approach*. Eugene, OR: Castalia; 1992
- [24] Kochanska G, Aksan N, Joy ME. Children's fearfulness as a moderator of parenting in early socialization: Two longitudinal studies. *Developmental Psychology*. 2007;**43**(1):222
- [25] Ramchandani PG, IJzendoorn MV, Bakermans-Kranenburg MJ. Differential susceptibility to fathers' care and involvement: The moderating effect of infant reactivity. *Family Science*. 2010;**1**(2):93-101
- [26] Kim S, Kochanska G. Child temperament moderates effects of parent-child mutuality on self-regulation: A relationship-based path for emotionally negative infants. *Child Development*. 2012;**83**(4):1275-1289
- [27] Tharner A, Luijk MP, Raat H, IJzendoorn MH, Bakermans-Kranenburg MJ, Moll HA, et al. Breastfeeding and its relation to maternal sensitivity and infant attachment. *Journal of Developmental & Behavioral Pediatrics*. 2012;**33**(5):396-404
- [28] Neece CL, Green SA, Baker BL. Parenting stress and child behavior problems: A transactional relationship across time. *American Journal on Intellectual and Developmental Disabilities*. 2012;**117**(1):48-66
- [29] Lionetti F, Pluess M, Barone L. Vulnerabilità, resilienza o differente permeabilità? Un confronto tra modelli per lo studio dell'interazione individuo-ambiente [Vulnerability, resilience or differential susceptibility? Comparing models on individual environment interaction]. *Psicologia Clinica dello Sviluppo*. 2014;**18**(2):163-182
- [30] Rothbart MK, Posner MI, Hershey KL. Temperament, attention, and developmental psychopathology. *Development and Psychopathology*. 2006;**2**:465-501

- [31] Dadds MR, Moul C, Hawes DJ, Mendoza Diaz A, Brennan J. Individual differences in childhood behavior disorders associated with epigenetic modulation of the cortisol receptor gene. *Child Development*. 2015;**86**(5):1311-1320
- [32] Patterson GR, Chamberlain P, Reid JB. A comparative evaluation of a parent-training program. *Behavior Therapy*. 1982;**13**(5):638-650
- [33] Kaminski JW, Valle LA, Filene JH, Boyle CL. A meta-analytic review of components associated with parent training program effectiveness. *Journal of Abnormal Child Psychology*. 2008;**36**(4):567-589
- [34] Levac AM, McCay E, Merka P, Reddon-D'Arcy ML. Exploring parent participation in a parent training program for children's aggression: Understanding and illuminating mechanisms of change. *Journal of Child and Adolescent Psychiatric Nursing*. 2008;**21**(2):78-88
- [35] Eames C, Daley D, Hutchings J, Whitaker CJ, Jones K, Hughes JC, Bywater T. Treatment fidelity as a predictor of behaviour change in parents attending group-based parent training. *Child: Care, Health and Development*. 2009;**35**(5):603-612
- [36] Eames C, Daley D, Hutchings J, Whitaker CJ, Bywater T, Jones K, Hughes JC. The impact of group leaders' behaviour on parents acquisition of key parenting skills during parent training. *Behaviour Research and Therapy*. 2010;**48**(12):1221-1226
- [37] Chorpita BF, Daleiden EL, Ebesutani C, Young J, Becker KD, Nakamura BJ, et al. Evidence-based treatments for children and adolescents: An updated review of indicators of efficacy and effectiveness. *Clinical Psychology: Science and Practice*. 2011;**18**(2):154-172
- [38] Muratori P, Milone A, Manfredi A, Polidori L, Ruglioni L, Lambruschi F, et al. Evaluation of improvement in externalizing behaviors and callous-unemotional traits in children with disruptive behavior disorder: A 1-year follow up clinic-based study. *Administration and Policy in Mental Health and Mental Health Services Research*. 2017;**44**(4):452-462
- [39] Lochman JE, Wells KC. Effectiveness of the coping power program and of classroom intervention with aggressive children: Outcomes at a 1-year follow-up. *Behavior Therapy*. 2003;**34**(4):493-515
- [40] Lochman JE, Wells KC. The coping power program for preadolescent aggressive boys and their parents: Outcome effects at the 1-year follow-up. *Journal of Consulting and Clinical Psychology*. 2004;**72**(4):571
- [41] Webster-Stratton C. Modification of mothers' behaviors and attitudes through videotape modeling group discussion program. *Behavior Therapy*. 1981;**12**:634-642
- [42] Webster-Stratton C. Teaching mothers through videotape modeling to change their children's behaviors. *Journal of Pediatric Psychology*. 1982;**7**:279-294
- [43] Webster-Stratton C. *The Parent and Child Series: A Comprehensive Course Divided into four Programmes—Leaders' Guide*. Seattle, WA: The Incredible Years; 2001
- [44] Webster-Stratton C. *The Incredible Years: A Troubleshooting Guide for Parents of Children Ages 3-8 Years*. Seattle: Incredible Years Press; 2005



- [45] Reid MJ, Webster-Stratton C, Hammond M. Enhancing a classroom social competence and problem-solving curriculum by offering parent training to families of moderate-to high-risk elementary school children. *Journal of Clinical Child and Adolescent Psychology*. 2007;**36**(4):605-620
- [46] Webster-Stratton CH, Reid MJ, Beauchaine T. Combining parent and child training for young children with ADHD. *Journal of Clinical Child & Adolescent Psychology*. 2011; **40**(2):191-203
- [47] Webster-Stratton C. Advancing videotape parent training: A comparison study. *Journal of Consulting and Clinical Psychology*. 1994;**62**(3):583-593
- [48] Webster-Stratton C. Long-term follow-up of families with young conduct problem children: From preschool to grade school. *Journal of Clinical Child Psychology*. 1990;**19**(2): 144-149
- [49] Sanders MR. The triple P-positive parenting programme: Towards an empirically validated multilevel parenting and family support strategy for the prevention of behavior and emotional problems in children. *Clinical Child and Family Psychology Review*. 1999;**2**:71-90
- [50] Sanders MR. Helping families change: From clinical interventions to population-based strategies. In: Booth A, Crouter A, Clements M, editors. *Couples in Conflict*. Marwah, NJ: Lawrence Erlbaum Associates; 2001. pp. 185-220
- [51] Eyberg SM, Boggs SR. Parent-child interaction therapy for oppositional preschoolers. In: Schaefer CE, Briesmeister JM, editors. *Handbook of Parent Training: Parents as Co-Therapists for Children's Behavior Problems*. 2nd ed. New York: Wiley; 1998. pp. 61-97
- [52] Brestan EV, Eyberg SM. Effective psychosocial treatments for children and adolescents with disruptive behavior disorders: 29 years, 82 studies, and 5272 kids. *Journal of Clinical Child Psychology*. 1998;**27**:179-188
- [53] Moretti MM, Obsuth I. Effectiveness of an attachment-focused manualized intervention for parents of teens at risk for aggressive behaviour: The connect program. *Journal of Adolescence*. 2009;**32**(6):1347-1357
- [54] Moretti MM, Holland R, Moore K, McKay S. An attachment based parenting program for caregivers of severely conduct disordered adolescents: Preliminary findings. *Journal of Child and Youth Care Work*. 2004;**19**(1):170-178
- [55] Obsuth I, Moretti MM, Holland R, Braber C, Cross S. Conduct disorder: New directions in promoting effective parenting and strengthening parent-adolescent relationships. *Canadian Child and Adolescent Psychiatry Review*. 2006;**15**(1):6-15

