Diagnosis, risk factors, evolutionary trajectories and treatment of disruptive behavior disorders: The Coping Power Program's diffusion in Italy

Gennarina Pirri

Clinical Psychologist, Criminologist, Cognitive-Behavioral Psychotherapist, EMDR Therapist. Clinical Trainer Coping Power Program, Trainer Coping Power School, Specialist in diagnosis and treatment of Disruptive Behavior Disorders, AIFA's (Associazione Italiana Famiglie ADHD) Psychologist for Region Friuli Venezia Giulia, Italy

ABSTRACT

Knowing and diagnosing carefully a Disruptive Behavior Disorder, analyzing the clinic consistency of the subtypes DC and CU as well as the etiological, neurocognitive and neurobiological specificities, will allow the clinician to perform a much more precocious diagnosis. The comprension of the factors that are associated with aggressiveness and disruptive behaviors contributed to the development of interventions in order to prevent and reduce the impact of these disorders, which can evolve into juvenile delinquency or antisocial personality disorders, if not treated. This article, after an exposition of the new DBD criteria in the DSM V and an analysis of the risk factors for aggressive children, will outline the researches on this topic, and will describe the intervention protocol named Coping Power Program (CPP), as well as listing some researches, including the Italian ones, that confirmed the effectiveness of this protocol.

RIASSUNTO

Conoscere e saper diagnosticare in modo accurato un Disturbo da Comportamento Dirompente, analizzarne la consistenza clinica dei sottotipi DC e CU e le specificità eziologiche, neurocognitive e neurobiologiche, permetteranno al clinico una diagnosi sempre più precoce. Comprendere i fattori che sono associati con l'aggressività ed i comportamenti distruttivi ha contribuito allo sviluppo di interventi per prevenire e ridurre l'impatto di questi disturbi, che se non trattati possono avere traiettorie evolutive verso forme diverse di delinquenza giovanile o disturbi di personalità antisociale. Questo articolo, dopo aver esposto in modo dettagliato la revisione dei criteri del DSM V dei DCD, aver esplicitato quali sono i fattori di rischio e i fattori protettivi per i bambini aggressivi e con comportamenti distruttivi, illustrerà sommariamente le ricerche sostenute in tale ambito e successivamente descriverà il protocollo di intervento Coping Power Program (CPP) elencando alcune ricerche che ne hanno confermato l'efficacia comprese quelle italiane.

RESUMEN

Conocer y ser capaz de diagnosticar con precisión un trastorno de comportamiento perturbador, saber analizar la consistencia clínica de los subtipos CD[1] e CU[2] y de las especificidades etiológicas, neurocognitivas y neurobiológicas, permitirá al clinico avanzar un diagnóstico precoz de estos disturbos. Comprender los factores asociados a la agresión y a la conducta distructiva, sin lugar a dudas, ha contribuido al desarrollo de intervenciones para prevenir y reducir el impacto de estos trastornos, los quales, si no tratados a tiempo, pueden generar durante el periodo evolutivo trayectorias de desarrollo y adquisición de comportamientos antisociales y otras formas de delincuencia juvenil. En el presente artículo, después de haber expuesto detalladamente la revisión de los criterios del DSM V e del TCP,[3] y de haber explicado cuáles son los factores de riesgo y de protección para niños agresivos con comportamientos destructivos, se resumirá la investigación llevada a cabo esta área de aplicación, describiendo el protocolo de intervención del Coping Power Program (CPP), y mencionando algunas investigaciones que confirman su efectividad, incluidas aquellas italianas.

A new category in the diagnostic classification: Disruptive disorders, impulse and conduct control disorders

The disruptive disorders and the impulse and conduct control disorders, named in the DSM V as Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD), are one of the first causes of request for consultation among the mental health services for childhood and adolescence. Children, who present clinical diagnosis referable to this category of disorders, have high evolutionary risks and a relevant impairment of their adaptive behavior, that make often difficult their scholastic and social journey. These children's issues have a negative impact on their evolutionary trajectories to the adult age and may develop into disorders linked with social marginalization or drug abuse and addiction. The prognostic implication and the social costs of these psychiatric disorders in childhood have brought a lot of researches in the last twenty years, that allowed to clarify on lots of clinical, etiological and therapeutic elements.

An accurate analysis of the DBDs may help the clinician to detect the symptoms, and especially to formulate a diagnosis that has to be not only descriptive, but also capable of outline a specific

[1] Trastorno de conducta - su sigla en inglés es **CD** (Conduct Disorder).

[2] Emociones superficiales - su sigla en inglés es **CU** (Callous-Unemotional).

[3] Trastornos del Comportamiento Perturbador (**TCP**).

disorder, examining the onset age, similar cases among the family, and the neurobiological features.

In the DSM V classification, only the Attention Deficit Hyperactivity Disorder (ADHD) is considered among the **Neuro-development Disorders (ND),** whilst the ODD and the CD are included in a separate category, called disruptive conduct disorders, in which are included all those disorders that share an externalizing expressive modality.

In the disruptive conduct disorders category are included:

- Oppositional Defiant Disorder
- Intermittent Explosive Disorder (only for subjects aged more than 18 years)
- Conduct Disorder
- Conduct Disorder Callous Unemotional
- Antisocial Personality Disorder

Oppositional Defiant Disorder

The group of authors who managed the revision of the ODD diagnostic criteria in the DSM V (APA 2012) have done an examination of the articles concerning this disorder in the years between 1995-2008. These Authors underline that the definition of the ODD, as expressed in the DSM previous edition, identifies a specific group of children and teenagers that have an adaptation and functioning impairment and may develop other adaptive issues independently from the association with other psychiatric diseases such as ADHD, CD, anxiety disorder, depressive disorder, drug addiction disorder (Burke *et al.*, 2010). Many articles showed that the ODD allows to identify early forms of disorders in the preschool age, that in a high percentage (80%) tend to remain stable in the three years follow-up after the first diagnosis (Keenan and Hill, 2010). This fact is confirmed also by the Great Smoky Mountain Study (Copeland *et al.*, 2009) in which the ODD diagnosis, carried out in school age and adolescence, is a predictive factor of affective disorders in adult age. In many researches is clear that the ODD symptoms are linked between them and help the prognosis of the of the behavioral issues. In a Stringaris and Goodman's research (2009) some of the ODD emotional symptoms are pointed out as predictors of the future development of a mood disorder. The behavioral events instead, appear to be as indicators of an evolution towards clinical outlines that are featured by the violation of major and minor rules, like when are present revengeful conducts aimed to negatively influence the others, especially if peers.

In the DSM IV the presence of the diagnostic criteria of the CD was an element of exclusion for an ODD diagnosis. In the DSM V this exclusion principle was not confirmed, since many studies pointed out that an ODD diagnosis is a prognostic predictive factor, even in the absence of a CD (Burke *et al.*, 2010). In the DSM V we can find, as an exclusion principle, the presence of a psychotic disorder or a mood disorder, and was added the drug addiction disorder and the bipolar disorder. Is also specified that is not necessary to fulfill the inclusion criteria for a Disruptive Mood Dysregulation Disorder (DMDD).

Disruptive Mood Dysregulation Disorder

Back to the exclusion criteria that guide the clinician, is opportune to refer to the new diagnostic category of the DDDU. This new clinic entity is inserted in the depressive disorders chapter as first diagnostic category, because it refers to a new clinic form mostly childhood onset. The DDDU criteria description is focused on behavioral conducts that are featured by the impossibility to control the urges, that recall the behavioral features of children with an ODD diagnosis. The DDDU can't allow the coexistence of an ODD or a bipolar disorder, but can be associated with ADHD, CD and drug addiction disorder. Subjects that met the inclusion criteria for both DDDU and ODD can have only a DDDU diagnosis. If a subject never showed maniacal episodes, a DDDU diagnosis should never be proposed. ODD criteria include the word "often" as an element to quantify the symptom, and is possible to make an ODD diagnosis even if only based on defiant conducts, without high level of irritability, whilst in the DDDU is present a persistent negative mood (edgy, sad and angry).

Conduct Disorder

In the DSM V, with the 15 symptoms describers, is possible to extend the CD diagnosis even after the age of 18, without considering the limitation that, in this case, the criteria for the Antisocial Personality Disorder met. Some specific elements are added, in order to facilitate the diagnosis in adult age, such as " serious rules violation" like, for example, the violation of a legal verdict or being careless and absent at work. In the DSM V is also childhood-onset preserved the classification of the subtypes identified by a 10 years onset, in order to distinguish the diagnosis from the adolescence-onset one (APA, 2012).

In a 2008 study by Moffit and colleagues, a "shopping list" of the most controversial aspects is presented, and is underlined the importance that in the new DSM edition will find place an evaluation of the psychiatric familiarity as well as of the neurobiological markers.

In this study is highlighted the utilization of the neuro-imaging, especially the magnetic resonance for volumetric studies (Boes *et al.*, 2008; De Brito *et al.*, 2011), that allowed to point out structural and functional anomalies in subjects with CD, in the amygdala's temporal and frontal region, which are the cause of neuropsychological deficits, such as the executive functions (Raaij-makers *et al.*, 2008) and the emotional stimuli elaboration (Herpertz *et al.*, 2008).

The importance of a subtyping process is also underlined, aimed to intercept the clinical subgroups that need a diagnostic criteria readjustment, such as the serious conduct disorders in preschool age or the CD in female subjects.

Amongst the CD diagnostic criteria in the DSM V we can find the Callous Unemotional traits (CU). The presence of this traits identifies children with very serious conduct disorders, if compared with others that don't have these CU traits (Frick and Moffit, 2010). In particular, children with CD plus CU traits present much more aggressive conducts, purposeful ones, willing to gain personal advantages, or pushed by a revengeful will, even the aim to oppress the others. Longitudinal studies proved that the presence of CU traits may predict unfavorable evolution patterns, in which behavioral issues, in particular antisocial conducts, may increase with growth until the reach of the adult age, with the presence of severe antisocial conducts, like the Antisocial Personality Disorder. Adult subjects that present psychopathic traits have specific affective characteristics, like poor ability to feel guilty due to their aggressive or antisocial acts, low empathic skills and a very poor emotional code. Furthermore, in these subjects, dysfunctional relational characteristics can be found, with the trend to handle relationships in a manipulative way, plus an impulsive and unaccountable behavior.

In a study, published by the IRCCS Stella Maris research group, in Pisa (Masi *et al.*, 2008b), the presence of CU traits and a predatory kind of aggressiveness, have been considered as possible predictive indices of non-response to a psychosocial treatment, in a group of 38 subjects aged between 6 and 14 years with an ODD or CD diagnosis. The sample's subjects endured a multimodal treatment, in which both children and parents were involved, taken place in the service for conduct disorders' treatment called "*Al di là delle nuvole*". Data shows that non-responders subjects present high symptomatic severity indices at the beginning of treatment, higher levels of predatory aggressiveness and high score on both check list of the CU scale (APSD and ICU). All the data collected on the CD and CU subtype and his etiological and neurobiological specificity, as well as the impact of the CU traits on the clinical frame and the treatments' effectiveness, have brought the inclusion of the CU traits in the DSM V as specific criteria for the CD diagnosis (Milone, 2013).

Etiology and risk factors for childhood conduct problems

A contextual social-cognitive model has been employed to summarize the empirically-identified risk factors for conduct problems in children (Matthys and Lochman, 2010). Across development, a child can amass several of these risk factors, which can increase the likelihood that the child will display severe and persistent conduct problems. These risk factors fall within five domains: neurobiological factors, family factors, school and contextual factors, peer factors, and later-emerging child-level social cognitive and emotional regulation processes.

- **Neurobiological factors.** 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 (Brennan *et al.*, 1999, 2002; Delaney-Black *et al.*, 2000; Kelly *et al.*, 2000; Räsänen *et al.*, 1999). Child-level neurobiological factors can affect the development of conduct problems, such as androgen and serotonin levels and the child's temperament. There is a positive correlation between higher androgen levels and aggression (Connor, 2002). Decreased levels of serotonin are related to less behavioral inhibition (Linnoila *et al.*, 1983; Soubrie, 1986). Children's temperament can affect their subsequent aggressive behavior, but only when parents provide harsh discipline or low monitoring (Matthys and Lochman, 2012).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 (Cadoret *et al.*, 1995; Caspi *et al.*, 2002).
- **Family contextual factors.** A wide range of family contextual factors lead to elevated risk of child conduct problems. Conduct problems during childhood have been linked to family contextual factors like poverty (Barry *et al.*, 2005), parent criminality, substance use, maternal depression (Barry *et al.*, 2005), marital conflict (Wolfe *et al.*, 2003), single and teenage parenthood (Cuffe *et al.*, 2005), stressful life events (Barry *et al.*, 2005), and controlling, ambivalent attachment between parent and child (Moss, *et al.*, 2006). These familial risk factors can exert an effect on parenting practices, which in turn can exert an effect on child behavior.
- **School and contextual factors**. Distinct features of the school context have been shown to diminish or further aggravate a child's conduct problems. Schools and teachers can exercise positive influences on a student's behavior, even in the presence of substantial risk factors (McEvoy and Welker, 2000). In contrast, there are several school and classroom features which have been connected to children's higher levels of disruptive and aggressive behavior. Schools with greater levels of overall student poverty (Thomas *et al.*, 2006) and schools with lower levels of financial resources (Battistich *et al.*, 1995) have higher incidents of aggressive behavior exhibited by students and poorer child behavioral functioning in general. Children who have previously been exposed to antisocial and violent activity have a greater risk of developing conduct problems (McCabe *et al.*, 2005).
- **Peer factors.** Children with conduct problems are more at risk for having exaggerated or inaccurate perceptions of their levels of acceptance by their peers and for being rejected by their peers (Pardini *et al.*, 2006). Children who are defined as only aggressive and children who are defined as only rejected show less severe antisocial behavior than children who are both aggressive and socially-rejected (Miller-Johnson *et al.*, 2002).The degree of social rejection that students experience can be influenced by the match between the race of students and their peers in a classroom (Jackson *et al.*, 2006). As children with conduct problems become adolescents, they are more likely to associate with deviant peers (Warr, 2002). This inclination to associate with deviant peers substantially increases the risk for more severe conduct problems and risk behaviors in adolescence, such as substance use and delinquency (*e.g.*, Fite *et al.*, 2007). According to the contextual social-cognitive model (Lochman and Wells, 2002a), the child with conduct problems often have cognitive distortions at the appraisal phases of social information processing, for example he can misperceive the levels of aggressive behavior that they or their peers release in dyadic interactions (Lochman and Dodge, 1998), due in part to executive function deficits (Ellis *et al.*, 2009). Children with conduct problems also have difficulty at the problem solution phase. They are more likely to endorse social goals related to revenge and dominance (Lochman *et al.*, 1993), which then guide the nonverbal and maladaptive action-oriented solutions they use to solve perceived problems (Dunn *et al.*, 1997; Lochman and Dodge, 1994). Children who display proactive aggressive behavior and callous-unemotional traits show especially deficient beliefs at this stage of information processing (Dodge *et al.*, 1997; Pardini *et al.*, 2003). Children's level of physiological arousal in response to social problem situations varies based on their biological sensitivity to context and interpretation of the activating event (Williams *et al.*, 2003). In turn, the arousal level influences social problem solving, working to either increase the fight or flight response, or to block the child's ability to generate effective solutions. Due to their interactive nature, it can be difficult to change these highly ingrained thought and behavior patterns in children, often requiring lengthy and multi-modal interventions.

Research on relations between attachment and deviation growth

The first Bowlby's studies on attachment and separation offered many indications over the possibility that primary attachment bonds' insecurity could play an important role in the future development of aggressiveness and antisocial behavior.

In the intricate frame of development's psychopathology, an

insecure attachment to the primary figure, if isolated, can't be considered a certain factor of psychopathological development. When, instead, an insecure attachment's pattern is not isolated and is associated with others risk factors, then it will draw a development's path with possible psychopathological exits.

Using the four way's coding systems, which include not only the three attachment's stations configurations (A, B and C) but also the disoriented-disorganized attachment (Main, Solomon, 1990), opened to new speculation and interesting results in the researches, that point out a strong correlation between this attachment type and externalizing issues. Some studies, on high risk populations (Lyons-Ruth *et al.*, 1989; Shaw and Vondra, 1995; Shaw *et al.*, 1997), showed that disorganized attachment is clearly related with high levels of hostility and aggressiveness in preschool age, and also with CD's category.

As it is known, attachment's disorganization, in preschool and school age, tend to evolve towards particular protection strategies of Self, with a well-defined consistency and organization, both in self and other's representation, then in interpersonal conduct. These strategies were defined by Cassidy and Marvin (1992) as controlling (in a punitive and humiliating mean toward the parent; or caregiving, comforting and reassuring toward him/her) (Henninghausen and Lyons-Ruth, 2005; Hesse *et al.*, 2003; Lyons-Ruth and Jacobvitz 2008). In Crittenden's Dynamic-Maturational Model (1992-1994, 1996), these models are called coercive-active (C3/5/7) and defended (A3/4) medium and high index. Many researches, both on high risk and clinical samples (Greenberg *et al.*, 1991; Speltz *et al.*, 1990, 1999), as well as performed on non-clinical samples (Fagot and Pears, 1996), show that this configuration are particularly at risk to develop CD or ODD. Obviously, subjects with an insecure attachment to both parents are more likely to and in the ODD's clinical group (Deklyen *et al.*, 1998; Lambruschi and Muratori, 2013).

Different forms of aggressiveness' expression

It is important to underline that DBD's heterogeneity is related to the differences between two kind of aggressiveness, which can be found in early childhood: the reactive aggressiveness and the pro-active one (Vitiello *et al.*, 1990).

The reactive aggressiveness usually emerges as a reaction to an environmental event perceived as hostile, and if featured by impulsiveness, easy irritability, anger crisis; the pro-active aggressiveness has the aim to gain benefits for the Self, and is featured by a good behavior's planning and poor consideration of the others' emotion and perspective. The reactive aggressiveness is the behavioral form associated to ODD or CD school age- onset, whilst pro-active is mainly associated to DBD after contact with a criminogenic environment (family of social context) or to CD with CU traits. The temperamental vulnerability that induce the development of reactive aggressiveness include an easy negative emotion's activation, like anxiety and sadness, even as a result of small provocations, and a poor intentional and unintentional control in front of stressful events. In this cases CD or ODD is the result of a irritable temper, because the aggressive behavior is supported by a poor attitude to avoid those emotion that induce his regulation system derangement. Pro-active aggressiveness instead, is featured by a constant low arousal level and by addiction to external reinforcement in behaviors' guidance, including affiliation ones. Searching for new sensations, in this point of view, should become functional to increase a low arousal level, perceived as an adverse physiological condition. Furthermore, the disposition to not feel anxiety, bound to the low arousal level, should deprive child of an important antisocial conducts' restraint, namely an unpleasant emotional activation after behavioral punishments (Dadds, Salmon, 2003).

In DBD anyway aggressiveness is the main symptom : in the reactive form aggressive behavior is mainly linked to difficulty in controlling and planning the answer, whilst in the pro-active form is mainly linked to the loss of the main environmental signals that provide human being the inhibition of aggressive answer and to feel socially "rewarded" for doing that (Feilhauer *et al.*, 2012).

It can be well noticed that these subtypes, in terms of internal functioning and adjustment styles of emotional condition, coincide with those that can be found in attachment configurations called "high index defense or high index coercive", according to the Crittenden's Dynamic-Maturational Model (DMM) 92-94, 1996.

Conducts disorders that gradually take shape in the "defense organizations of Self", feed themselves on processing methods aimed to minimization of own attachment's needs: in particular a ceaseless distancing (defensive exclusion) of negative affections of Self (anger, fear, vulnerability and refusal) occurs, and a poor awareness of personal emotional needs, with higher risk of unexpected violent crisis due to the loss of control on negative emotions (Cassidy, 1994; Crittenden, 1999). In these development patterns, since preschool age, the sense of self is organizing on unspoken perceptions of non-lovability and personal indignity (handled, since preschool age, through elaboration of a positive and compulsively accommodating presentation) and a corresponding perception of external reality as distant and non-approachable, if not intrusive and/or hostile. Aggressiveness is activated when the Self is "threatened" or somehow forced to make contact with thoughts and feelings linked to the attachment, on which the Self is incapable of think over. Particularly in this case, competitive rage tends to be a powerful "antidepressant". Conducts of retirement and isolation can be outlined, followed by sudden bursts of anger (often expressed outside the own family context: friendships, school); otherwise forms of bullying where aggressiveness tends to express itself in a cold way, with contemptuous conducts towards others and institutions. It may be shocking that often these subjects do not complain too much and tend to accept responsibility for the actions committed. In these cases, we can talk of an empath deficit of some sort, supported in these patterns by a conspicuous supplementary deficit of an emotional kind.

In the "high index coercive active" type of Self organization, since preschool age, internal operative models tend to be structured around a tacit perception of vulnerability and frailty, in front of an external reality perceived as unpredictable and dangerous (in which danger is present not only in the environment but also in the own attachment's figure). On the contrary of what happen in the distancing attachment (in which painful affections are distant from the Self), in this case we have a splitting of such negative affections (some are amplified, some are spaced) with an emphasis on anger (until hatred) and an ostentation of a falsely powerful Self. Feelings of weakness are transformed into strength through confrontation with other's fear and submission. In this case we could say that competitive rage plays the role of a powerful "tranquilizer". These subjects use false cognition and lie to deceive others on their dangerous intentions. Even in preschool age they can easily build up serious oppositional defiant disorders with "tyrannical" and binding behaviors towards parent, who often come to consultation with the feeling to have lost his/her own authoritativeness and control over his/her son: everyday the relation between parent and child if centered on defiance and provocation with threatening and punitive acts from both parts. For the child is vital to feel a sense of control in the relation with the parent, to fell a sense of stability and predictability in the relationship. To act insistent, querulous, even

sometimes get into risky situations, is all very effective ways to burdening the relations and exercise an active and constant control over the caregiver. In this case, in order to keep the status-quo of the relation , is essential that the child is steadily anchored to his point of view, while ignoring firmly other's perspective (Lambruschi and Fabbri 2004). These children, in fact, do not seem to suffer of any empath deficit, rather they enter in deep emotional resonance (affective contagion) with others. Curiously their victims can reveal a complementary attitude that Crittenden (1992-94, 1999) calls passive coercive (disarming or seductive), obsessed by aid, in which, on the contrary, feelings of vulnerability are emphasized, splitting them up from anger.

These explanatory differences in terms of development's patterns, emotional regulation styles and cognitive-emotional organizations, will help the clinician in the objective's definition of therapy, in building up the therapeutic alliance with both the child and his family, and to implement intervention's strategies (Lambruschi and Muratori 2013).

But is paramount to keep in mind that these child's diagnosed issues may evolve into forms of psychopathy or juvenile deviance, as explained below.

Aggressive and antisocial behavior's evolution trajectories

Developmental course of delinquent behavior

Population-based studies conducted across multiple countries and historical contexts have found that the prevalence and rate of criminal offending among youth tend to escalate during the teenage years then rapidly decrease across the 20s to early 30s (Loeber *et al.*, 2008; Frrington, 1986). However, there remains considerable heterogeneity in the developmental course of delinquent behavior within the population in terms of the onset, rate, and duration of offending. Over the past several decades, investigators have proposed various developmental models designed to delineate subgroups of youth who show distinct patterns of offending over time. One of the most enduring sub typing schemes is Moffitt's developmental taxonomy model, which is founded on a large body of longitudinal research showing that there is a small portion of approximately 5% to 10% of youth who show severe conduct problems in childhood and who are at increased risk for showing criminal behavior into adulthood (Moffitt, 2006). The criminal behavior of these childhood-onset cases (also referred to as life-course persistent offenders) is thought to be driven by a combination of early psychosocial adversity, a dysfunctional child- rearing environment, and subtle neurologic impairments. This pathway is in contrast with a larger group of youth who begin engaging in delinquent behaviors during adolescence. This group is thought to consist predominantly of oppositional adolescents who are poorly monitored and subsequently begin affiliating with deviant peers. Adolescent-onset offenders are posited to largely leave their antisocial ways behind during the transition into adulthood as they adopt prosocial roles (*e.g.*, a stable job), spend less time with deviant peers, and engage in more mature decision making. Over the past decade, a growing number of longitudinal studies have indicated that the developmental taxonomy model requires further revision (Fairchild *et al.*, 2013).

For example, studies using latent trajectory group analysis have found that approximately 50% to 70% of youth who show severe conduct problems during childhood refrain from engaging in significant criminal offending during adolescence and young adulthood (Fairchild *et al.*, 2013; Odgers *et al.*, 2008). There is also substantial evidence that adolescent-onset offending is not as transient as was initially thought. Longitudinal studies have delineated a group of youth who show a rapid increase in offending during adolescence and continue engaging in criminal behavior well into adulthood (Fairchild *et al.*, 2013).

Behavioral precursors of severe delinquent behavior

Longitudinal studies have consistently found that early forms of problem behavior in childhood often precede the development of severe delinquent behavior during adolescence. Loeber (1988) proposed a heuristic model based on longitudinal research describing a developmental progression of 3 overlapping, but distinct, subtypes of antisocial behavior (authority defiance, covert conduct problems, overt conduct problems). According to this model, intense, affectively laden conflicts with authority figures (*e.g.*, arguing, defiance, oppositional conflict) before school entry often proceed or co-occur with the development of more severe overt and covert conduct problems. Behaviors in the overt pathway tend to progress from minor acts of verbal and physical aggression (eg, threatening, bullying, hitting, teasing others) in childhood to acts of serious violence during adolescence (*e.g.*, murder, robbery, attacking with a weapon), whereas behaviors in the covert pathway progress from lying and minor theft (*e.g.*, shoplifting) beginning in childhood to more serious acts of theft (*e.g.*, burglary, auto theft) during adolescence. As outlined in detail later, developmentally appropriate and empirically validated intervention programs have been designed to target youth showing the range of problem behaviors that make up these pathways.

Cause of juvenile delinquency

Contemporary developmental models of youth delinquency founded on longitudinal research have served as the foundation for the development targeted by intervention programs, such as the Bio-psychosocial Model (Dodge and Pettit, 2003), Developmental Taxonomy Model (Moffitt, 2006), the Contextual Social-Cognitive Model (Lochman and Wells, 2002), and the Seattle Social Development Model (Catalano and Hawkins, 1996). Each of these models posits that early childhood dispositional characteristics coupled with an accumulating array of adverse socio-contextual risk factors serve to perpetuate early emerging and persistent delinquency. However, there are a myriad of different factors that have been linked to the development in delinquent behavior in longitudinal and cross-sectional studies (Moffatt, 2006; Lobber and Pardini, 2009; Farrington, 2015). These factors, which span multiple life domains (Sociodemographic factors, Dispositional factors, Peer factors, School factors, Family factors, Parenting factors, Neighborhood factors, Social-cognitive factors, Psychophysiological factors, Neuro-cognitive factors, Neurobiological factors).What remains unclear is the extent to which various risk factors represent key causal mechanisms in the development of delinquent behavior, as opposed to spurious correlates. In addition, it has become increasingly evident that there are multiple causal pathways underlying the behavioral manifestations of antisocial behavior in youth, and these pathways involve complex mediating and moderating mechanisms. On a rudimentary level, longitudinal evidence suggests that, as youth begin accumulating a diverse array of risk factors across development, they become increasingly likely to engage in persistent antisocial behavior (Atzaba-Poria *et al.*, 2004; Stouthamer-Loeber M *et al.*, 2002). For

example, children born with significant emotional and behavioral regulation problems who are exposed to disadvantaged and maladaptive socio-contextual environments (*e.g.*, poor neighborhoods, harsh parenting) are at particularly high risk for developing severe conduct problems in early childhood (Moffitt and Caspi 2002). These children tend to enter school with poor social and academic skills, leading to aggressive conflicts with both peers and teachers (Dodge, *et al.*, 2008). Over time, they may increasingly experience academic failure and become rejected by mainstream peers, which can result in an increased affiliation with deviant youth who reinforce antisocial behaviors and beliefs (Dodge and Pettit, 2003). As adolescents, these youth may then become further attached to a life of crime by developing substance use problems and coming into contact with the juvenile justice system.

Behavioral problem's treatment and prevention

Common mechanisms targeted by preventive interventions

Preventive interventions for children at-risk for conduct problems are often multi-component in nature, seeking to impact as many key contextual domains as possible. Common elements of interventions at the parent/family, child, and contextual levels are described below.

Improving the parent-child relationship

As described above, in families of children with conduct problems, the parent-child relationship is often characterized by low levels of parental warmth. Thus, an initial aim of parenting interventions is to strengthen the positive bond between the parent and child. To do so, parents are encouraged to reserve special time to connect with their child in a meaningful way each day and to minimize conflict during this time together. Parents of younger children are taught to engage in child-directed play, by following the child's lead during unstructured play together. Parents of older children are encouraged to spend one-on-one time with their child on a regular basis and to use this time to engage in an activity that their child enjoys, to be available to listen to their child's concerns, to express warmth and affection for their child, and to avoid criticizing their child or raising conflict-laden topics during this time. Once a stronger level of trust and affection has developed between the parent and child, parents are taught additional behavioral parenting strategies. ***Parental stress management***. Parenting can be very stressful and parents of children with conduct problems often have more psychosocial stressors. Thus, another important intervention focus is providing parents with support and training around managing the stress of parenting. Emphasis is placed on describing how stress can undermine positive parenting behaviors and negatively impact the parent-child relationship. Parents are taught to recognize how their own stress can lead to over-reactions to their child's behavior. Parents are encouraged to find ways to take part in enjoyable, stress-reducing activities and to schedule this time for them self regularly. Parents are often taught specific relaxation techniques, including guided imagery, deep breathing, and progressive muscle relaxation. Parents are also taught how their own thoughts ("my child is driving me crazy" *versus* "he is irritable today because he did not sleep well last night") and feelings affect their parenting behaviors. Parents who have marked difficulty modulating their own emotions are also advised to seek adjunctive individual therapy for themselves. ***Parental contingency management***. Another overarching aim of parent/family interventions is to modify the contingencies that are in place that shape the child's behavior. Parents are taught to use labeled praise to reinforce specific positive behaviors and to use planned ignoring to diffuse minor irritating behaviors that might otherwise lead to conflict. Parents practice setting clear behavior rules and expectations for their household, giving clear instructions and assessing child compliance. Parents also learn a specific system for providing positive consequences for desired behaviors and utilizing effective (non-physical) punishment strategies to address noncompliance and other forms of problem behavior. An important goal is for parents to be able to consistently convey their unconditional regard for their child, while also responding differentially to positive and negative child behaviors. ***Parental support for children's academic learning***. Given the important role of school in children's lives, another common intervention focus is to help parents support their child's learning and behavior at school. Parents are taught to develop regular, proactive communication methods with their child's teacher. For example, parents are taught to utilize a school-to-home notebook that allows for increased communication about homework assignments, increased parenting monitoring of homework completion, and improved communication and consistency in addressing the child's behavioral functioning at school. Child interventions often teach children organization and study skills to increase their academic success and to decrease conflict with parents and teachers around academic issues. ***Parental supervision to decrease delinquency***. A specific risk factor for children's substance use initiation is their involvement with deviant peers. Thus, an important focus of parent/family interventions is to encourage parents to actively supervise their child's activities, to be aware of the types of peers their child is spending time with, and to continue these practices well into adolescence. Parents are encouraged to keep their children involved in supervised, structured activities as much as possible and to develop systems for monitoring their child's activities during unstructured times. ***Children's personal goal-setting***. Building motivation is central to fostering behavior change. One method used to motivate children with conduct problems to improve their behavior is to help them learn to set personal goals and to examine how their current behavior is preventing them from accomplishing their goal(s). When used regularly, this goal setting process can make the intervention personally-relevant, increase children's motivation to improve their behavior outside of intervention sessions, and facilitate children's regular receipt of feedback about target behaviors and reinforcement for behavior gains. Goal-setting can also be used with parents and teachers to modify their interaction patterns with children with challenging behavior. ***Children's emotional awareness and emotion regulation***. Another key intervention target is improving children's emotional regulation. A primary goal is to help children become better at detecting a range of emotions and recognizing the early signs of emotional arousal. Children are taught to recognize the physiological, behavioral, and cognitive manifestations of anger arousal and how they can use their own thoughts and behavior to reduce arousal. Children practice reducing anger arousal by using a range of coping strategies, including self-instruction, distraction, deep breathing, and relaxation. Children are then exposed to increasingly high levels of anger arousal during a series of graded in vivo exposure tasks and practice using one or more coping strategies to reduce their anger arousal. ***Child and family social problem-solving***. Another common intervention focus is to teach children to solve social problems more effectively. This process entails a series of steps, including: identifying the problem specifically and accurately, generating a range of potential solutions, thinking ahead about the likely consequences of each solution, and enacting the solution with the most positive expected outcome. Primary intervention aims are to help children use more deliberate than automatic processing and to practice utilizing solutions that are

most likely to yield positive social outcomes (such as verbal assertion, bargaining, and compromise). As one step in this process, children are taught to consider problems from others' perspectives, to reduce common social-cognitive deficits, such as hostile attribution biases. Some interventions teach parents the same problem-solving approach and encourage them to use it at home to solve family problems. ***School and contextual interventions***. Children with conduct problems often experience difficulty in both their home and school environments. Thus, many interventions seek to improve the communication between home and school and ensure that consistent approaches are being utilized to shape the child's behavior across these settings. Some interventions focus directly on the teacher and school environment. This can be conducted informally, through a school-to-home communication plan (as described above), or formally, through a Individualized Education Plan for children with more severe conduct problems. The intervention focus is often to identify several measurable and attainable behavioral goals for the child and to help the teacher utilize a contingency management system (as described above) to help the child meet these goals. Classroom-wide curricula are also available to help teachers develop a positive classroom environment, to utilize effective behavioral management strategies, and to foster positive social-emotional learning in all classroom students (Boxmeyer *et al.*, 2012).

A targeted treatment and prevention program applied also in Italy: The Coping Power Program

Amongst the various intervention programs which may be administered to school and to the general population, being universal prevention programs, the Coping Power Program (CPP) it's spread also in Italy since 2012.

The CPP (Lochman and Wells, 2002a, 2002b, 2002c) is a specific intervention for controlling and managing aggressiveness. The Coping Power Program was derived from earlier research on the child-focused Anger Coping Program, which produced lower rates of alcohol, marijuana, and other drug use at follow-up period 3 years after the intervention, in comparison to a control condition (Lochman, 1992). Coping Power is a comprehensive, multi-component intervention program that is based on the contextual social- cognitive model of risk for youth violence (Lochman and Wells, 2002a). Coping Power draws upon many of the cognitive and behavioral techniques of well-established parent training programs, while also incorporating techniques that target malleable child-level social-cognitive risk factors for externalizing behavior problems. Coping Power includes a 34-session child component and a coordinated 16-session parent component, both of which are designed to be delivered over a 16- to 18-month period. The Coping Power program can be implemented by mental health professionals in clinical practice settings or by school guidance counselors and related school personnel. The Coping Power was originally designed to be implemented with 4th to 6th grade children, but has been successfully adapted for younger and older children. It has also been successfully adapted for other languages (*e.g.*, Dutch, Spanish, Italian) and cultures. An abbreviated version was recently developed which can be readily completed in one academic year (24 child sessions, 10 parent sessions) and still produce significant reductions in children's aggressive behavior at a multi-year follow-up (Lochman *et al.*, 2014). A version of the program for individual delivery (rather than group delivery) is being evaluated, with promising pilot results. In an initial efficacy study of the Coping Power Program, Lochman and Wells (2002a, 2004) randomly assigned 183 aggressive boys (60% African-American, 40% white non-Hispanic) to one of three conditions: a cognitive-behavioral Coping Power child component, combined Coping Power child and behavioral parent training components, and an untreated cell. The two intervention conditions took place during fourth and fifth grades or fifth and sixth grades, and the intervention lasted for 1.5 school years. Screening of risk status took place in 11 elementary schools, and was based on a multiple-gating approach using teacher and parent ratings of children's aggressive behavior (participants were in the top 20% on teacher ratings). At one-year follow-up, the Coping Power conditions (child component only; child plus parent component) produced reductions in children's self-reported delinquent behavior, in parent-reported alcohol and marijuana use by the child, and improvements in their teacher-rated functioning at school during the follow-up year, in comparison to the high-risk control condition (Lochman and Wells, 2004). Coping Power intervention effects on parent-rated youth substance use and delinquent behavior were most apparent for participants who received the combined child and parent Coping Power Program. In contrast, boys' teacher-rated behavioral improvements in school during the follow-up year appeared to be primarily influenced by the child component. The intervention effects on delinquency, parent-reported substance use, and teacher-rated improvement at one-year follow-up were mediated by intervention–produced improvements in children's internal locus of control, their perceptions of their parents' consistency, children's attributional biases, person perception, and children's expectations that aggression would not work for them (Lochman and Wells, 2002a). These meditational effects were observed for both conditions (child component only; child plus parent component). Given these positive findings, the next research questions examined whether Coping Power has similar effects in other settings and with existing school and agency personnel. Several types of effectiveness and dissemination studies have been conducted with Coping Power, yielding significant intervention effects on children's aggressive behavior and problem-solving skills among aggressive deaf children in a residential setting (Lochman *et al.*, 2001), and on the overt aggression of children with conduct disorders in Dutch outpatient clinics, in comparison to children receiving care-as-usual (van de Wiel *et al.*, 2007). Long-term follow-up analyses of the Dutch sample, four years after the end of intervention, indicated that the Dutch version of Coping Power (Utrecht Coping Power Program: UCPP) had preventive effects by reducing adolescent marijuana and cigarette use (but not alcohol use). The rates of substance use of the youth in UCPP were within the range of typically developing Dutch adolescents (Zonneyville-Bender *et al.*, 2007). Analyses of cost effectiveness of UCPP found that Coping Power produced reductions in children's conduct problems at the end of intervention for 49% less cost than a Care-As-Usual condition (van de Wiel *et al.*, 2003). In a larger-sample effectiveness study, the effects of Coping Power (combined child and parent components) as an indicated preventive intervention for high-risk children were examined, along with the effects of a universal, classroom-level preventive intervention (Lochman and Wells, 2002b). A total of 245 male and female aggressive fourth grade students were randomly assigned to one of four conditions: Coping Power alone; Coping Power plus classroom intervention; classroom intervention alone; and control. At post-intervention, the three intervention conditions produced lower rates of substance use than the control condition (Lochman and Wells, 2002b). Children who received both interventions displayed improvements in their social competence with peers, and their teachers rated these children as having the greatest increases in problem solving and anger coping skills. Coping Power also produced reductions in parent-rated and teacher-rated proactive aggressive behavior, and increases in teacher-rated behavioral

improvement. A one-year follow-up of this sample replicated the findings of the prior efficacy study. Children in Coping Power had lower rates of self-reported substance use and delinquency, and lower levels of teacher-rated aggressive social behavior at school, in comparison to the control children (Lochman and Wells, 2003). Long-term effects on children's aggressive behavior at school have been found three years after intervention (Lochman *et al.*, 2013). Another dissemination study found that children participating in Coping Power groups run by school guidance counselors who received an intensive form of training had significant reductions in aggressive behavior at the end of intervention (Lochman *et al.*, 2009), and less deterioration in academic outcomes two years later (Lochman *et al.*, 2017). DBDs, including ODD and CD, are amongst the much present clinical conditions in children and adolescent in mental health institutions. In Italy, two studies that employed the CBCL (Child Behavior Checklist) (Achenbach and Rescorla, 2001), have detected the presence of behavioral issues in the 8-12% of the analyzed sample (Frigerio *et al.*, 2006). For this reason, in Italy, the Stella Maris research group in Pisa, working in the outpatient service "*Al di là delle nuvole*", applied this treatment model to children with ODD or CD diagnosis, plus managed the Italian edition of the treatment program's manual (Muratori *et al.*, 2012a). The Coping Power Program, in the child component, is structured into 32 group sessions, and employs cognitive-behavioral techniques as well as activities aimed to enforce different abilities, for example undertake short and long term objectives, effectively homework planning, get to know and modulate anger's physiological signals, to know others' point of view (perspective taking), adequately resolve conflictual situations, to resist peers' pressures and make contact with a positive groups of peers. Furthermore, behavioral contracts are employed, in which minimum scholar and social objectives are set, and a prizes' system is associated to achievement of those objectives. Role-playing and peers' interaction are the principal tools used by the program with the aim of increase competences acquired outside the therapeutic setting. Choosing to work in groups allows children to make *in vivo* learning experiences in gaining interpersonal abilities and social competences; furthermore, peers group's social reinforcement is far more effective than adult's one in a dyadic situation (Lochman and Lehart, 1993). The Coping Power Program's parent component is structured into 16 group sessions, with the aim of developing and increasing parenting skills in various areas, including homework organization, parent stress management, using proper educational practices, improving familiar communication and planning sharing time with children. As many Parent Training programs, the intervention uses a system of homework mainly focused to a systematic observation of the child's behavior and to record parent's reactions accordingly to the subjects discussed in group session. Although both the children and parents component can be implemented separately, authors strongly recommend to use both components at the same time in order to accomplish the most effective result. It is established that both programs proceed in parallel and that, during Parent Training, parents are always keep informed about the activities that their children do in the group so that, for example, they can sustain the problem solving ability that their children are acquiring.

Application of the Coping Power Program with adolescents

In Italy the application of the CPP (Ruglioni *et al.*, 2009; Muratori *et al.*, 2012a) tried to verify the possibility of a usage of this treatment model with teenagers 13-14 age that, due to biologic development and personality features, could be considered as teenagers. The therapeutic goals of some of the CPP modules, both for teenagers as well as for parents, can be considered as protective factors against the development of oppositional and aggressive conducts in adolescence. The group setting can sustain the identification's process in the adolescent and, through the confrontation moments and mutual help during the activities, can integrate the cooperative dimension. To build up an identification process that integrate the motivation to cooperate can help the adolescent to share experiences, actions, emotions with the peer's group, trying to outline a functional balance between detection and differentiation's needs.

To what kind of teenagers can the CPP be proposed? A possible first answer is the onset age. Moffit (1993b), starting from this onset age concept, have developed an "evolutionary theory of antisocial behavior" that explains the continuity and discontinuity of these conducts. The authoress discerns between: adolescent limited individuals (AL), in which antisocial behavior begins in adolescence and tend to vanish in first adult age; and adolescent limited offending (LCP), which are antisocial subjects with an history of conduct's disorders childhood-onset that often present chronic outcomes. These individuals are generally more aggressive, show severe functional impairments like attention's deficits and impulse's control, and present serious temperamental problems. These children often have a family member with psychopathological issues, they live in deprived environments and suffer due to a life with serious social-economics problems; all these environmental factors often bring these adolescents to begin a course of care only in the beginning of adolescence, thus when their deviant behaviors can become extremely violent and aggressive even in the family context. Parents then experience serious consequences due to their sons' behavior, and only in that moment ask for help to specialized services. In the last 10 years, literature tried to find answer over the fact that a deviant career, starting in first adolescence, can be a factor that will influence the entire life (Padrini *et al.*, 2010). In this point of view the attempt to apply the CPP in adolescent age can be of the outmost importance in terms of prevention (Lambruschi and Muratori, 2013).

CPP's validation studies in Italy

Italian scientific community's contribute does not end to write down the Italian version of the CPP manual or increasing the protocol's application to a wider age's range, but have also conducted different studies aimed to demonstrate that CPP's effectiveness can be influenced by some factors that need particular attention. For example, it has been pointed out (Muratori *et al.*, 2015), that maternal depression plus incoherent parenting practices, have a negative influence on CPP's results. It has been hypothesized that the change in inconsistent or harsh maternal discipline, and the level of maternal depression, may affect the efficacy of a multi-component treatment on child aggressive behavior. The aim of the study is to test this hypothesis in 62 Italian children (mean age 9.6) with disruptive behavior disorders, treated with Coping Power Program. Was used the residualized change in a two-wave model to measure the change in aggressive behavior, as an outcome variable; and the change in parenting practices and the level of maternal depression at the beginning of the treatment were the independent variables. Our results show that a decrease in inconsistent discipline, but not in harsh discipline, was associated with a better treatment outcome in children. Furthermore, a higher level of maternal depression predicted a worse treatment outcome in children.

According to our findings, change in parenting skill is a key mechanism for promoting a positive treatment outcome. Another study (Muratori *et al.*, 2017a) demonstrated the Coping Power's effectiveness in reducing both externalizing behaviors in children with disruptive behavior disorders as well as children's callous unemotional traits. The sample included 98 Italian children, 33 treated with the CP program; 37 with a less focused multi-component intervention, and 28 with child psychotherapy. The results showed that the CP program was more effective than the other two treatments in reducing aggressive behaviors. Furthermore, only the CP program was associated with a decrease in children's callous unemotional traits. The CP program was also associated with lower rate of referrals to mental health services at one-year follow-up. Another 2017 study (Muratori *et al.*, 2017b) implemented the CPP in five Italian hospitals and tested the effectiveness in relation to the attachment's styles of the therapist that was applying the protocol. A consecutive sample of children initially referred for behavioral problems received a systematic evaluation at five Italian community hospitals, in five different Italian cities. The CPP group consisted of 80 children, age range 8-12 years, 70 Caucasian. Sixty-nine (92%) male and 11 (8%) female. Of these, 54 (68%) had an ODD diagnosis, 26 (32%) one of CD, 25 (32%) had also an attention deficit hyperactivity disorder comorbidity, and 8 (10%) had a mood disorder comorbidity. These patients had severe impairments in many areas of functioning (C-GAS mean score=45.6, 6.24 SD). These 80 children were divided into 16 groups, with 4-6 children in each, and we examined the attachment style characteristics of the leaders of these CPP groups (16 therapists). Was collected a control sample that included a treatment as usual (TAU) group that contained 80 children, 69 (92%) male and 11 (8%) female, 54 (68%) with an ODD diagnosis and 26 (32%) with CD diagnosis, with 22 (28%) having an ADHD comorbidity. These patients also had severe impairments in many areas of functioning (C-GAS mean score=42.6, 6.74 SD). A total of 160 children met the inclusion criteria, completed pre-treatment assessments, and started intervention. Of these, 16 (10%) did not complete the treatment, eight were from the CP group, and eight from the TAU condition, whilst those who accomplished the study have followed almost all the protocol, with an average child and parent attendance rate of 89%. The protocol integrity was monitored with the following methods: 1) Therapists followed an official 3 days training; 2) Therapists attended supervision meetings during 6 months with a certified CPP Supervisor. As did in others CPP's related studies (Muratori *et al.*, 2014, 2017a, 2047b), checklists were filled by therapists after each session, outlining which objectives were accomplished and which group activities were used. These checklists were reviewed by the official CPP supervisor, and they indicated that over 85% of session objectives were delivered. All the therapists involved in the CP condition had a master degree in psychology and attended official training in psychotherapy, as required by the Italian law. Treatment as usual (TAU) condition received weekly sessions of psychotherapy for a 9 months period. Children received a cognitive behavioral intervention delivered in individual setting, as usual in Italian community hospitals. Parents received individual parent training. Essentially, the children and parents in TAU group received a psychotherapy intervention in individual setting rather than in group setting as in CPP condition. The attachment's styles of the therapists were screened through the attachment style questionnaire (ASQ) (Feeney *et al.*, 1994). Analysis of covariance showed a significant effect of group for aggression (F (1,156)=23.171; p=0.000; eta square=0.13), for rule breaking behaviors (F (1,156)=10.429; p=0.002; eta square=0.06), but only a marginal effect for CGAS (F (1149)=3.009; p=0.085; eta square=0.02). For all the outcomes a better improvement for the CPP groups was found, meaning a decrease across time for aggression and rule breaking behaviors and an increase across time for the general functioning. The change in aggression was significantly related to the levels of the therapist's preoccupation with relationships. Higher levels of change in aggression are associated with higher levels of a preoccupied attachment style. Was pointed out that higher levels of preoccupation for relationships can distract or reduce the therapist's focus on the content and objectives of treatment. The CPP is a very structured treatment, with preset activities and objectives for each session. A therapist who has higher levels of preoccupation with relationships may become less accurate in managing the sequence and content of the treatment. It's predictable that CPP therapists with higher levels of preoccupation for relationships may have a tendency to modify the order or the content of certain activities of the program, to maintain their relationship with the patient. Furthermore, children with aggressive problems may behave during therapy sessions in a way that is dangerous for themselves or others. A therapist with higher levels of preoccupation for relationships may tend to intervene anxiously, instead of using the techniques and principles included in the CPP. It is important to underline that similarly to previous studies with adult patients, the presence of an avoidant attachment style in the therapist does not influence outcome of the intervention (Meyer *et al.*, 2001; Schauenburg *et al.*, 2010; Wiseman and Tishby 2014). However, these findings are in contrast to those from Bruck *et al.* (2006), which showed a direct link between higher therapist attachment avoidance and greater patient's inter- personal problems after the intervention.

Conclusions

It is widely demonstrated that the problems that we analyzed in this article, like juvenile delinquency, drug abuse, low school performance, social and relational difficulties, *etc*., have a very high social cost, and their roots can be tracked back in childhood. For this reason, it is of the utmost importance the prevention and treatment of all those children's disorders, for which the correlation with those above-mentioned problems is demonstrated. This objective can be achieved through the use of specific treatment protocols, like the Coping Power Program, that showed in many validation studies its capability to reduce aggressive behaviors, CU traits, to improve emotional identification, problem solving skills and perspective taking ability, if compared to other treatment programs. A more capillary diffusion of the CPP in the Italian mental health structures should provide more effective prevention and treatment forms for childhood externalizing disorders, plus offering an important saving in economics terms and costs for the National Health Service, thanks to the necessity to apply the protocol in group sessions.

References

American Psychiatric Association (2000). Diagnostic and statistical manual of mental disorders (4th ed., Text Revision). Washington, DC: American Psychiatric Press.

Atzaba-Poria N., Pike A., Deater-Deckard K. (2004). Do risk factors for problem behavior act in a cumulative manner? An examination of ethnic minority and majority children through an ecological perspective. J Child Psychol Psychiatry 45:707-18.

Barry T.D., Dunlap S.T., Cotton S.J., Lochman J.E., Wells K.C.

(2005). The influence of maternal stress and distress on disruptive behavior problems in children. J Am Acad Child Adol Psy 44:265-273.

Battistich V., Solomon D., Kim D., Watson M., Schaps E. (1995). Schools as communities, poverty levels of student populations, and student attitudes, motives, and performance: A multilevel analysis. Ame Educ Res J 32:627-658.

Bierman K.L., Coie J.D., Dodge K.A., Greenberg M.T., Lochman J.E., McMahon R.J., Pinderhughes E. (2010). The effects of a multiyear universal social–emotional learning program: The role of student and school characteristics. J Consult Clin Psychol 78:156-168.

Boes A., Tranel D., Nopoulos P. (2008). Right anterior cingulate cortex volume is a neuroanatomical correlate of aggression and defiance in boys. Behav Neurosci 122:677-84.

Boxmeyer C., Caroline L., Lochman J.E., Powell, Nicole P., Powe, Cameron. (2012). Preventing conduct disorders and related problems. In: Lawrence Scheir (ed.), Handbook of Drug Prevention.

Brennan P.A., Grekin E.R., Mednick S.A. (1999). Maternal smoking during pregnancy and adult male criminal outcomes. Arch Genl Psychiat 56:215-9.

Brennan P.A., Grekin E.R., Mortensen E., Mednick S.A. (2002). Relationship of maternal smoking during pregnancy with criminal arrest and hospitalization for substance abuse in male and female adult offspring. Am J Psychiatry 159: 48-54.

Brotman Miller L., Klein R.G., Kamboukos D., Brown E.J., Coard S.I., Sosinsky S. (2003). Preventive intervention for urban, low-income preschoolers at familial risk for conduct problems: A randomized pilot study. J Clin Child Adol Psy 32:246-57.

Bruck E., Winston A., Aderholt S., Muran J.C. (2006). Predictive validity of patient and therapist attachment and introject style. Am J Psychotherapy 60:393-406.

Burke J.F., Walman I., Lahei B.B. (2010). Predictive validity of childhood oppositional defiant disorder and conduct disorder: Implication for the DSM-V. J Abnorm Psychol 119: 739-51.

Cadoret R.J., Yates W.R., Troughton E., Woodworth G., Stewart M.A.S. (1995). Genetic-environmental interaction in the genesis of aggressivity and conduct disorders. Arch Gen Psychiatry 52:916-24.

Caspi A., McClay J., Moffitt T.E., Mill J., Martin J., Craig I.W., Taylor A., Poulton R. (2002). Role of genotype in the cycle of violence in maltreated children. Science 297:851-854.

Cassidy J. (1994). Emotion regulation: Influences of attachment relationships. In N.A. Fox (ed.), The Development of attachment regulation. Monograph of the Society for Research in Child Development. 59 (Serial No. 240), pp. 228-49.

Cassidy J., Marvin R.S., The MacArthur Working Group on attachment (1992). A system for classifying individual differences in the attachment behavior of 2 to 4 yeas old children. Unpublished Coding Manual. University of Virginia.

Catalano R.F., Hawkins J.D. (1996). The social development model: a theory of antisocial behavior. In: Hawkins J.D., editor. Delinquency and crime: current theories. New York: Cambridge University Press, pp.149-97.

Conner D.F. (2002). Aggression and antisocial behavior in children and adolescents: Research and treatment. New York: Guilford Press.

Copeland W.E., Shanaham L., Costello E.J. (2009). Childhood and adolescent psychiatric disorders as predictors of young adult disorders. Arch Gener Psychiatry 66:764-72.

Crittenden P.M. (1992-94). Preschool assessment of attachment, Unpublished Manuscript, Family Relationship Institute, Miami, FL.

Crittenden P.M. (1996). Research on maltreating families: Implications for intervention. In B.J. Berliner *et al.*, The APSAC Handbook on child maltreatment, Sage Publications, Thousand Oaks.

Crittenden P.M. (1999). Attaccamento in età adulta: l'approccio dinamico maturativo all'Adulto. Attachment Interview, Raffaello Cortina, Milano.

Cuffe S.P., McKeown R.E., Addy C.L., Garrison C.Z. (2005). Family and psychosocial risk factors in a longitudinal epidemiological study of adolescents. J Am Acad Child Adol Psy 44:121-129.

Curtis C., Norgate R. (2007). An evaluation of the promoting alternate thinking strategies curriculum at key stage 1. Educational Psychology in Practice 23: 33-44.

Dadds M.R., Salmon K. (2003). Punishment insensivity and parenting: Temperament and learning as interacting risks for antisocial behavior. Clin Child Family Psychol Rev 6:69-86.

De Brito S.A., Mechelli A., Viding E. (2011). Small, but not perfecty formed: Decreased white matter concentration in boys with psychopathic tendencies. Molecular Psychiatry, 16, pp. 476-9.

Deklyen M., Speltz M., Grenzberg M.T. (1998). Fathering and early onset conduct problems: Positive and negative parenting, father-son attachment, and the marital context. Clin Child Family Psychol Rev 1: 3-21.

Delaney-Black V., Covington C., Templin T., *et al.* (2000). Teacher-assessed behaviour of children prenatally exposed to cocaine. Pediatrics 106:782-791.

Dodge K.A., Greenberg M.T., Malone P.S. (2008). Testing an idealized dynamic cascade model of the development of serious violence in adolescence. Child Dev 79:1097-27.

Dodge K.A., Pettit G.S. (2003). A biopsychosocial model of the development of chronic conduct problems in adolescence. Dev Psychol 39:349-71.

Dunn S.E., Lochman J.E., Colder C.R. (1997). Social problem-solving skills in boys with conduct and oppositional defiant disorders. Aggressive Behavior 23:457-469.

Ellis M.L., Weiss B., Lochman J.E. (2009). Executive functions in children: Associations with aggressive behavior and social appraisal processing. J Abnorm Child Psycholy 37:945-56.

Fagot B.I., Pears K.C. (1996). Changing in attachments during the 3rd year: Consequence and predictions. Dev Psychopathol: 325-44.

Fairchild G., Van Goozen S.H., Calder A.J., *et al.* Research Review: (2013). Evaluation and reformulating the developmental taxonomic theory of antisocial behavior. J Child Psychol Psychiatry 54:924-40.

Farrington D.P. (1986), Age in Crime. In Tonry M., Morris N, editors. Crime and justice: An annual review of research, vol. 7. Chicago: University of Chicago Press, pp. 189-250.

Farrington D.P. (2015). Prospective longitudinal research on the development of offending. Aus New Zeal J Criminol, 48-3, pp. 314-35.

Feeney J.A., Noller P., Hanrahan M. (1994). Assessing adult attachment. In M.B. Sperling, W.H. Berman (eds), Attachment in adults: clinical and developmental perspectives, pp. 128-152. New York, NY: Guilford Press.

Feilhauer J. *et al.* (2012). Differential associations between psychopathy dimensions, Types of aggression, and response inhibition. Aggress Behav 38: 77-88.

Fite P.J., Colder C.R., Lochman J.E., Wells K.C. (2007). Pathways from proactive and reactive aggression to substance use. Psychol Addict Behav 21:355-364.

Frick P.J. (2003). The Inventory of Callous/Unemotional Traits: An

Unpublished Rating Scale. The University of New Orleans, New Orleans.
Frick P.J. (2009), Extending the construct of psychopathy to youth: Implications for understanding, diagnosing and treating antisocial children and adolescents. Can J Psychiatry 54:803-II.
Frick P.J., Moffitt T.E. (2010). A Proposal to DSM-V Childhood Disorder and ADHD Disruptive Behavior Disorders Work Group to Include a Specifier of Conduct Disorder Based on the Presence of Callous- Unemotional Traits. American Psychiatric Association DSM-V Proposal Online, pp. I-36.
Frigerio A., Vanzin L., Pastore V., *et al.* 2006). The Italian preadolescent mental health project (PrISMA): Rationale and methods. Inte J Methods Psychiatric Res 15:22-35.
Greenberg M.Y. *et al.* (1991). Attachment Security in Preschoolers with and without Externalizing Problems: a Replications. Dev Psychopathol 3: 413-30.
Gross D., Fogg L., Webster-Stratton C., *et al.* (2003). Parent training with families of toddlers in day care in low-income urban communities. J Consult Clini Psychol 71:261-278.
Hennighausen K., Lyons-Ruth K. (2005). Disorganization of Behavioral and Attentional Strategies toward Primary Attachment Figures: From Biologic to Dialogic Process. In C. S. Carter *et al.*, (eds), Attachment and Bonding, A New Synthesis, MIT Press, Cambridge (MA), pp. 269-301.
Herpertz S., Hubner T., Marx I. (2008). Emotional Processing in Male Adolescents with Childhood-Onset Conduct Disorder. J Child Psychol Psychiatry 49:781-91.
Hesse E. *et al.* (2003). Unresolved States Regarding Loss or Abuse Can Have "Second Generation" Effects. Disorganized, Role-Inversion, and Frightening Ideation in the Offspring of Traumatized Non-Maltreating Parents. In M.F. Solomon, D.J. Siegel (eds), Healing Trauma: Attachment, Mind, Body and Brain, Norton, New York, pp. 57-106.
Hutchings J., Gardner F., Bywater T., *et al.* (2007). Parenting intervention in Sure Start services for children at risk of developing Conduct Disorder: Pragmatic randomized controlled trial. Br Med J 334:1-7.
Izard C.E., Trentacosta C.J., King K.A., Mostow A.J. (2004). An emotion-based prevention program for Head Start children. Early Educ Develop 15: 407-422.
Jackson M.F., Barth J.M., Powell N., Lochman J.E. (2006). Classroom contextual effects of race on children's peer nominations. Child Develop 77:1325-37.
Jones A.P., Laurens K.R., Viding E. (2009). Amigdala Hypoactivity to Fearful Faces in Boys with Conduct Problems and Callous Unemotional Traits. Am J Psychiatry 166: 85-102.
Keenan K., Danis B., Hill C. (2010). Evidence for the Predictive Validity of DSM IV Oppositional Defiant and Conduct Disorders Diagnosed in Preschoolers. J Child Psychol Psychiatry 52:47-55.
Kelly J.J., Davis P.O., Henschke P.N. (2000). The drug epidemic: Effects on newborn infants and health resource consumption at a tertiary perinatal centre. Pediatric Child Health 36:262-264.
Lambruschi F., Fabbri D. (2004). I disturbi della condotta. In id. (a cura di), Manuale di Psicoterapia cognitiva dell'età evolutive. Bollati Boringhieri, Torino.
Lambruschi F., Muratori P. (2013). Psicopatologia e Psicoterapia dei disturbi della condotta. Carocci Editori, Roma.
Linnoila M., Virkkunen M., Scheinen M., *et al.* (1983). Low cerebrospinal fluid 5-hydroxyindoleacetic acid concentration differentiates impulsive from nonimpulsive violent behavior. Life Sciences 33:2609-14.
Lochman J.E. (1992). Cognitive-behavioral intervention with aggressive boys: Three year follow-up and preventive effects. J Consult Clin Psychol 60:426-32.
Lochman J.E., Baden R., Boxmeyer C.L., *et al.* (2014). Does a booster intervention augment the effects of an abbreviated version of the Coping Power Program for aggressive children? J Abnorm Child Psychol 2014;42:367-81.
Lochman J.E., Boxmeyer C., Powell N., *et al.* (2009). Dissemination of the Coping Power Program: Importance of Intensity of Counselor Training. J Consult Clin Psychol 77:397-409.
Lochman J.E., Boxmeyer C., Powell N., *et al.* (2017). Coping Power dissemination study: Intervention and special education effects on academic outcomes. Behav Disord 37:192-205.
Lochman J.E., Dodge K.A. (1998). Distorted perceptions in dyadic interactions of aggressive and nonaggressive boys: Effects of prior expectations, context, and boys' age. Develop Psychopathol 10:495-512.
Lochman J.E., Fitzgerald D.P., Gage S.M., *et al.* (2001). Effects of social-cognitive intervention for aggressive deaf children: The Coping Power Program. J Am Deaf Rehab Assoc 35:39-61.
Lochman J.E., Lenhart L.A. (1993). Anger Coping intervention for aggressive Children: conceptual models and outcome effects. in Journal abnormal child Psychology 62: 605-17.
Lochman J.E., Nelson W.M. III, Sims J.P. (1981). A cognitive behavioral program for use with aggressive children. J Clin Child Psychol 10:146-8.
Lochman J.E., Wayland K.K. (1994). Aggression, social acceptance and race as predictors of negative adolescent outcomes. J Ame Acad Child Adol Psy 33:1026-1035.
Lochman J.E., Wayland K.K., White K.J. (1993). Social goals: Relationship to adolescent adjustment and to social problem solving. J Abnorm Child Psychol 21:135-151.
Lochman J.E., Wells K.C. (2002). Contextual social-cognitive mediators and childoutcome: a test of the theoretical model in the coping power program. Dev Psychopathol 14:945-67.
Lochman J.E., Wells K.C. (2002a). Contextual Social Cognitive Mediators and Child Outcome: A Test of the Theoretical Model in the Coping Power Program. Developand Psychopathol 14: 945-67.
Lochman J.E., Wells K.C. (2002b). Effectiveness of the Coping Power Program and of Classroom Intervention with Aggressive Children: Outcomes at a One-Year Follow-Up. Behaviour Ther 34: 493-515.
Lochman J.E., Wells K.C. (2002c). The Coping Power Program at the Middle School Transition: Universal and Indicated Prevention Effects. Psychol Addict Behav 16: 40-54.
Lochman J.E., Wells K.C. (2003). Effectiveness study of Coping Power and classroom intervention with aggressive children: Outcomes at a one-year follow-up. Behavior Therapy, 34:493-515.
Lochman J.E., Wells K.C. (2004). The Coping Power program for preadolescent aggressive boys and their parents: Outcome effects at the one-year follow-up. Journal of Consulting and Clinical Psychology, 72:571-578.
Lochman J.E., Wells K.C., Qu L., Chen L. (2013). Three year follow-up of Coping Power intervention effects: Evidence of neighborhood moderation? Prev Sci 14:364-76.
Loeber R. (1988). Natural histories of conduct problems, delinquency, and associated substance use: evidence for developmental progressions. Adv Clin Child Psychol, 11, pp. 73-124.
Loeber R., Farrington D.P., Stouthamer-Loeber M., *et al.* (2008). Violence and serious theft: development and prediction from childhood to adulthood. New York: Routledge.
Loeber R., Pardini D. (2009). Neurobiology and the development of violence: common assumptions and controversies. In

Hodgins S., Viding E., Plodowski A., editor, The neurobiological basis of violence: science and rehabilitation, Oxford (United Kingdom): Oxford University Press, pp. 1-22.

Lyons-Ruth K. *et al.* (1989). Family Deviance and Family Disruption in Childhood: Association with Maternal Behavior and Infant Maltreatment during the First Two Years of Life. Development and Psychopathology 1:219-36.

Lyons-Ruth K., Jabovitz D. (2008). Attachment Disorganization: Genetic Factors, Parenting Contexts, and Developmental Transformation from Infancy to Adulthood, in Cassidy, Shaver.

Masi G. *et al.* (2011). Predictors of Non-Response to Psychosocial Treatment in Children and Adolescents with Disruptive Behavior Disorders. Journal of Child and Adolescent Psychopharmacology, 21: 51-5.

Masi G. *et al.* (2008b). Conduct Disorder in Referred Children and Adolescents. Comprehensive Psychiatry, 49:146-53.

McCabe K.M., Lucchini S.E., Hough R.L., *et al.* (2005). The relation between violence exposure and conduct problems among adolescents: A prospective study. American Journal of Orthopsychiatry 75:575-584.

Meyer B., Pilkons P.A., Proietti J.M., *et al.* (2001). Attachmnet styles and personality disorders as predictors of symptom course. Journal of Personality Disorder 5: 371-389.

Milone A. (2013). Inquadramento nosografico dei disturbi del comportamento in età evolutiva: verso il DSM-V. In Lambruschi f. Muratori P. (ed), Psicoterapia e psicopatologia dei disturbi della condotta. Carocci editore, Roma.

Moffitt T.E. (1993). Adolescence.Limited and Life-Course-Persistent Antisocial Behavior: A Development Taxonomy. Psychological Review, 4: 674-701.

Moffitt T.E. (2006). Life-course persistent versus adolescence-limited antisocial behavior. In Cicchetti d., Cohen d. j., editors. Developmental psychopathology. 2nd edition, New York, Wiley, pp. 570-98.

Moffitt T.E., Arsenault L., Viding E. (2008). Research Review: DSM-V Conduct Disorder: Research Needs for an Evidence Base. Journal of Child Psychology and Psychiatry, 49, pp. I-40.

Moffitt T.E., Caspi A. (2001). Childhood predictors differentiate life-course persistent and adolescence-limited antisocial pathways among males and females. Dev Psychopatol 13:355-75.

Moss E., Smolla N., Cyr C., Dubois-Comtois K., Mazzarello T., Berthiaume C. (2006). Attachment and behavior problems in middle childhood as reported by adult and child informants. Development and Psychopathology, 18:425-44.

Muratori P. *et al.* (2012). Coping Power. Programma per il controllo di rabbia ed aggressività in bambini e adolescenti, Erikson, Trento (ed. or. J. Lochman, K. Wells, L. Lehart, Coping Power Program, Guilford Press, Oxford).

Muratori P., Milone A., Manfredi A., *et al.* (2017a). 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, 44:452-62.

Muratori P., Milone A., Nocentini A., *et al.* (2015). Maternal depression and parenting practices predict treatment outcome in Italian children with disruptive behavior disorders. Journal of Child and Family Studies, 24: 2805-16.

Muratori P., Polidori L., Chiodo S., *et al.* (2017b). A pilot study implementing Coping Power in Italian community hospital: effect of therapist attachment style on outcomes in children. Journal of child and family studies, 26:3093-101.

Odgers C.L., Moffitt T.E., Broadbent J.M., *et al.* (2008). Female and male antisocial trajectories: from childhood origins to adult outcomes. Dev Psychopathol 20:673-716.

Padroni D.A., Frick J.P., Moffitt T.E. (2010). Building an Evidence Base for DSM-V Conceptualization of Oppositional Defiant Disorder and Conduct Disorder: Introduction to the Spacial Section. Journal of Abnormal Psychology, 119: 683-8.

Pardini D.A. (2016). Empirically Based Strategies for Preventing Juvenile Delinquency. Child Adolesc Psychiatric Clin N Am.

Pardini D.A., Fite P.J. (2010). Sympton of Conduct Disorder, Oppositional Defiant Disorder, Attention-Deficit/Hyperactivity Disorder, and Callous-Unemotional Traits as Unique Predictors of Psychosocial Maladjustment in Boys: Advancing an Evidence Base for DSM-V. Journal of American Academy Child and Adolescence Psychiatry, 49:1134-44.

Pardini D.A., Barry T.D., Barth J.M., *et al.* (2006). Self-perceived social acceptance and peer social standing in children with aggressive-disruptive behaviors. Social Development 15:46-64.

Pardini D.A., Lochman J.E, Frick P.J. (2003). Callous/unemotional traits and social cognitive processes in adjudicated youth. Journal of the American Academy of Child and Adolescent Psychiatry 42:364-371.

Raaijmakers M., Sergeant J.A., Matthys W. (2008). Executive Functions in Preschool Children with Aggressive Behavior: Impairments in Inhibitory Control. Journal of Abnormal Child Psychology 36:1097-107.

Räsänen P., Hakko H., Isohanni M., *et al.* (1999). Maternal smoking during pregnancy and risk of criminal behavior among adult male offspring in the northern Finland 1966 birth cohort. American Journal of Psychiatry 156:857-62.

Reid M.J., Webster-Stratton C., Baydar N. (2004). Halting the development of externalizing behaviors in Head Start children: The effects of parent training. Journal of Clinical Child and Adolescent Psychology 33: 279-291.

Ruglioni L. *et al.* (2009). Il trattamento multimodale dei disturbi del comportamento dirompente in bambini di età scolare. Presentazione di una esperinza. Cognitivismo clinico 6: 150-67.

Schauenburg H., Buchheim A., Beck K., *et al.* (2010). The influence of psychodynamically orientöd therapists' attachment representation on outcome and alliance in inpatient psychotherapy. Psychotherapy Research 20:193-202.

Shaw D.S. *et al.* (1997). Antecedents in Preschool Children's Internalizing Problems: A Longitudinal Study of Low Income Families. J Am Acad Child Adol Psychiatry 36:1760-7.

Shaw D.S., Vondra J.I. (1995). Infant Attachment Security and Maternal Predictors of Early Behavior Problems: A Longitudinal Study of Low Income Families. Journal of Abnormal Child Psychology 23: 335-57.

Soubrie P. (1986). Serotonergic nerves and behaviour. Journal of Pharmacology 17:107-112.

Speltz M.L., Deklyen M., Greenberg M.T. (1999). Attachment in Boys with Early Onset Conduct Problems. Development and Psychopathology 2: 269-86.

Speltz M.L., Grenzberg M.T., Deklyen M. (1990). Attachment in Pre-Schoolers with Disruptive Behaviour: A Comparison of Clinic Referred and Nonproblem Children. Development and Psychopathology 2: 31-46.

Stouthamer-Loeber M., Loeber R., Wei E., *et al.* (2002). Risk and promotive effects in the explanation of persistent serious delinquency in boys. J Consult Clin Psychol 70:111-23.

Stringaris A., Goodman R. (2009). Longitudinal Outcome of Youth Oppositionality: Irritable, Headstrong, and hurtful behaviors have distinctive predictions. J Am Acad Child Adol Psychiatry 48:404-12.

Thomas D.E., Bierman K.L., Conduct Problems Prevention Research Group (2006). The impact of classroom aggression on

the development of aggressive behavior in children. Development and Psychopathology 18:471-87.
Van de Wiel N.M.H., Matthys W., Cohen-Kettenis P., van Engeland H. (2003). Application of the Utrecht Coping Power program and care as usual to children with Disruptive Behavior Disorders in outpatient clinics: A comparative study of cost and course of treatment. Behavior Therapy 34:421-36.
Van de Wiel N.M.H., Matthys W., Cohen-Kettenis P.T., *et al.* (2007). The effectiveness of an experimental treatment when compared with care as usual depends on the type of care as usual. Behavior Modification 31:298-312.
Vare R. (2009), La Psicopatia. Astrolabio, Roma.
Vitiello B., Behar D., Hunt J. (1990). Subtyping Aggression in Children and Adolescent. J Neuropsy Clin Neurosci 2:189-92.
Warr M. (2002). Companions in crime: The social aspects of criminal conduct. Cambridge, England: Cambridge University Press.
Webster-Stratton C. (1998). Preventing conduct problems in Head Start children: Strengthening parenting competencies. Journal of Consulting and Clinical Psychology 66:715-30.
Webster-Stratton C., Mihalic S., Fagan A., *et al.* (2001). Blueprints for violence prevention, book eleven: The incredible years: Parent, teacher, and child training series. Boulder, CO: Center for the Study and Prevention of Violence.
Webster-Stratton C., Reid M.J., Hammond M. (2001). Preventing conduct problems, promoting social competence: A parent and teacher training partnership in Head Start. J Clin Child Psychol 30:283-302.
Williams S.C., Lochman J.E., Phllips N.C., Barry T. (2003). Aggressive and nonaggressive boys'physiological and cognitive processes in response to peer provocations. J Clin Child Adol Psychol 32:568-76.
Wiseman H., Tishby O. (2014). Client attachment, attachment to the terapist attachment and client-therapist attachment match: How do they relate to change in psychodynamic psychotherapy? Psychother Res 24: 392-406.
Wolfe D.A., Crooks C.V., Lee V., *et al.* (2003). The effects of children's exposure to domestic violence: A meta-analysis and critique. Clin Child Family Psychol Rev 6:171-87.
Zonnevylle-Bende M.J.S., Matthys W., van de Wiel N.M.H., Lochman J. (2007). Preventive effects of treatment of DBD in middle childhood on substance use and delinquent behavior. J Am Acad Child Adol Psychiatry 46:33-39.

Correspondence: Gennarina Pirri.
E-mail: jennypirri@gmail.com

Key words: Coping Power Program; conduct disorders; oppositional defiant disorder; callous unemotional traits; juvenile delinquency.
Parole chiave: Coping Power Program; disturbi della condotta; disturbo da comportamento dirompente; tratti callous-unemotional; delinquenza giovanile.
Palabras clave: Coping Power Program; trastorno de comportamiento; trastorno negativista desafiante; emociones superficiales; delincuencia juvenil.

Conference presentation: Part of this article was presented to the "1° Congresso Nazionale dell'Accademia Italiana di Criminologia, Sistema Penale, Investigazioni e Sicurezza" 27-29 April 2018, Rome Italy.

Received for publication: 21 December 2016.
Revision received: 24 June 2017.
Accepted for publication: 30 March 2018.

Rivista di Psicopatologia Forense, Medicina Legale, Criminologia 2018; 23:23
doi:10.4081/psyco.2018.23