

Psychopathic Traits and Moral Cognitions in Understanding Juvenile Anti-social Behaviors: Empirical Evidence and Treatment Implications

Dragone, M.¹; Esposito, C.¹; Bacchini, D.¹

Abstract

Researchers and mental health professionals have paid growing attention to identify risk factors contributing to the prediction, assessment, and treatment of behaviorally at-risk youth. Among the well-established psychological factors associated with the development and persistence of antisocial behavior during adolescence, the role of psychopathy as well as moral cognitive processes has been emphasized over decades.

In this paper, the link between psychopathic traits, self-serving cognitive distortions and antisocial behaviors during adolescence has been examined through a review of the literature focused on empirical studies. Furthermore, starting from the studies on the treatment of psychopathy, which highlighted how the longstanding “Nothing Works” doctrine has been overtaken by the more recent “What Works” approach to offender treatment, we tried to point out some treatment implications for preventing and counteracting antisocial behaviors among psychopathic youth. In this regard, guided by previous research that recognized the self-serving cognitive distortions as cognitive expression of psychopathic traits, we suggested the need to early identify youth’s self-serving cognitive distortions and the potential benefits of focusing on cognitive restructuring processes, especially for those individuals with high levels of psychopathic personality traits.

After overcoming the rooted view of psychopathy as untreatable condition, we concluded this paper by providing some relevant suggestions, both for juvenile justice systems and clinical settings, in the field of prevention and treatment, to break the psychopathy-violence link during adolescence and adulthood effectively.

Keywords: *antisocial behavior; adolescence; psychopathy; self-serving cognitive distortions; treatment.*

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¹ University of Naples “Federico II”, Italy

Corresponding author: Mirella Dragone, mirella.dragone@unina.it

Introduction

Youth involvement in antisocial behavior is a serious public health concern in many countries worldwide (Redding et al., 2005). There is a broad consensus to consider such behavior as an umbrella term which refers to a wide range of outward behaviors such as aggression, delinquency, rule-breaking, substance use, vandalism, lying, stealing, and many other problematic behaviours (Moffitt et al., 2002). These behaviors aimed at directly or indirectly damaging others, breaking moral or social norms, and/or infringing on the personal or property rights of others (Barriga et al., 2001; Burt & Donnellan, 2009; Liu, 2004). An increase in antisocial behavior during adolescence can be considered a transient, quasi-normative phenomenon that reaches its peak during that developmental period (Moffitt et al., 2002; Simons-Morton et al., 2005), also bringing a substantial risk for more severe problem behavior, psychopathological disorders, and crime later in life (Moffitt, 2017). Corroboration for the high prevalence of antisocial behaviors during adolescence comes from both national and international statistics on the phenomenon. For example, according to the most recent official data from the Department of Juvenile and Community Justice of the Italian Ministry of Justice (2022), a total of 378 youths aged between 14 and 24 years have been involved in criminal-related offenses and incarcerated in Italy, with a decreasing trend over the last 15 years. Similarly, looking at the UK statistics from the Millennium Cohort Study (MCS; Fitzsimons & Villadsen, 2021) which examined the prevalence rates of substance use and antisocial behaviors from early to late adolescence, an increase in shoplifting (from 3.6% at age 14 to 6.9% at age 17) as well as a fairly high trend

in assault (from 32% at age 14 to 25% at age 17) and a substantial stability in some other types of antisocial behaviors, such as graffitiing (2.9% vs. 2.6% from age 14 to age 17), vandalism (3.6% vs. 2.9% from age 14 to age 17), and usage of weapons (1.1% vs. 1.2% from age 14 to age 17) occurred between 2018 and 2019.

Since these behaviors are followed by several psychosocial and legal detrimental consequences (Schaeffer et al., 2003; Tremblay, 2006), it is understandable the growing attention paid by researchers and mental health professionals involved with children and adolescents to identify psychological, socio-familial, and other risk factors that can contribute to the prediction, assessment, and treatment of behaviorally at-risk youth. Referring to the socio-cultural contexts where behaviorally at-risk youth are more likely to come from, it has been documented that growing up in neighborhoods where macrostructural patterns of disadvantage, ethnic inequalities and limited economic opportunities are radicalized, may promote a sense of hopelessness and cynicism about societal rules and their application, thereby resulting in attitudes and values that legitimize violence as an acceptable problem solving tool (Anderson, 1999). According to the “pathologic adaptation” to violence model (Ng-Mak et al., 2002), a large body of empirical research highlighted that repeated exposure to violence in the community leads youth to accept violence as a normative and legitimate strategy to cope with conflict, thus putting them at greater risk of involvement in aggressive or antisocial behaviors (e.g., Esposito et al., 2017).

Instead, as regards the psychological factors, the role of personality traits and moral cognitive processes in antisocial behavior has been emphasized in recent decades.

Referring to the personality constructs which have been widely recognized to promote the development and persistence of antisocial behaviors, the diagnosis of psychopathy has shown to be promising since early research by Hart et al. (1988), which in turn sparked the scientific debate and the consequent research on the association between psychopathy and violence.

From the Cleckley's (1941, 1988) clinical observations in his seminal work *The Mask of Sanity* until the Hare's (1980, 2003) operationalization of the personality disorder in the *Psychopathy Checklist* and allied instruments, psychopathy has traditionally been conceptualized as a multidimensional construct marked by a constellation of personality traits (Hare, 1988) grouped into three core domains which refer to affective, interpersonal, and behavioral features. Affective aspects of the disorder concern shallow emotions, callousness, and lack of guilt and empathy, interpersonal features include the use of superficial charm, grandiosity, manipulation, and lying, and, lastly, behavioural features concern the impulsivity, irresponsibility, need for excitement, using others, and lack of realistic long-term goals (Cooke & Michie, 2001).

A large body of research highlighted that individuals with psychopathic traits typically begin to display symptoms early in life (Frick et al., 2003). Accordingly, many efforts for understanding the etiology of psychopathy disorder or psychopathic traits have been carried out over decades. However, although the existing research on the potential developmental precursors of psychopathy during childhood and adolescence is still far from being conclusive, to date, the literature has identified the etiological factors associated with the development (onset and stability) of psychopathic traits within three main domains:

genetic, neurobiological, and socio-environmental.

If on one hand, the widely established stability of psychopathic traits across development (e.g., Hawes et al., 2018) seems to provide support for the genetic as well as neurobiological precursors (Blair, 2013; Blair et al., 2014), on the other hand, the emerging evidence about the malleability of these traits leads to take into account the impact of the social or environmental factors (Frick et al., 2014b; Waller et al., 2013).

As regards the genetic influences, the findings from the twin studies consistently showed moderate to strong heritability of psychopathic traits (36%–67%, Moore et al., 2019). More specifically, genetic variations in both oxytocin receptor gene (OXTR) and serotonin transporter gene (5-HTTLPR) seem to account for the lack of prosocial behaviors, such as affiliation and attachment (Lee et al., 2009), as well as the occurrence of disruptive antisocial behaviors and conduct problems (LoParo et al., 2016), and the impulsivity dimension of psychopathy among youth (Sadeh et al., 2010), respectively.

Furthermore, also some relevant neural functional impairments as well as cortical and subcortical neuroanatomical abnormalities were found to be involved in both the callous-unemotional and impulsive-antisocial dimension of psychopathic traits in youth (Bounoua et al., 2022). Findings from functional magnetic resonance imaging (fMRI) studies evidenced that functional abnormalities (i.e., hypoactivity) in the amygdala (Marsh et al., 2008; Jones et al., 2009; Viding et al., 2012) and the anterior cingulate cortex and putamen activities (Marsh et al., 2013; Sebastian et al., 2012) in response to empathy-eliciting stimuli (e.g., the viewing of fearful facial expressions) as well as during affective theory of

mind tasks, appear to at least partially explain both the deficits in affective processing and reinforcement-based learning, respectively. Also, among individuals with psychopathic traits, abnormal patterns of functioning in reward and punishment processing brain regions, as the ventromedial prefrontal cortex (vmPFC) and the striatum (Cohn et al., 2015; White et al., 2013), in response to receiving or attempting to predict the value of rewards emerged. Otherwise, no specific functional abnormalities in the key brain regions involved in the cognitive empathy tasks, as the medial frontal cortex, temporal parietal junction, temporal pole and posterior cingulate cortex, were detected (Sebastian et al., 2012). These findings support the longlasting conception that while psychopathic individuals' ability to recognize another person's emotional state is intact, their ability to subjectively feel another person's emotions is impaired (Cleckley, 1941).

Finally, some neuroanatomical abnormalities, as reduced gray matter volume in several areas of the prefrontal cortex, have been found among individuals who display high levels of callous-unemotional or psychopathic traits (Johanson et al., 2020).

Referring to the empirical evidences discussed above and guided by the gene-environment interaction approach, it must be recognized that neither genetic predisposition nor the neuroanatomical or functional abnormalities could be able alone to account for the complex features characterizing the psychopathy. Rather, the degree to which genetic or neural vulnerability will be expressed in the manifestation of psychopathic traits phenotypes seem to be strictly linked to the environment where youth are exposed in daily life (Bounoua et al., 2022).

In this regard, there is a considerable amount of research highlighting that early exposure to environmental adversity both within the more proximal (i.e., the family and peer relationships) and distal (i.e., the neighborhood/community) daily life contexts play an integral role in the etiology of youth psychopathy (Rubio et al., 2014). More specifically, youth with the highest, stable levels of psychopathic or callous-unemotional traits experience more negative parenting styles (e.g., lack of supervision, lower monitoring and knowledge, weak attachment; Salihovic et al., 2014; Waller et al., 2018) and parental practices (e.g., harsh punishment; Goulter et al., 2020; Waller et al., 2018) and are more likely to be affiliated with deviant peers (Kimonis et al., 2004; Muñoz et al., 2008; Ray, 2018) as well as to be exposed to negative life events (e.g., childhood interpersonal trauma, Marshall et al., 2021; being victim and/or witness of domestic and community violence, Ray, 2018; Sharf et al., 2014). Noteworthy, the findings of the studies discussed above are particularly relevant as they could help to inform and tailor intervention efforts for psychopathic youth.

The psychopathic constellation has widely been recognized as crucial for designating a distinct and important subgroup of antisocial adults (Hare, 2003; Douglas et al., 2018). Individuals with high levels of psychopathic traits exhibit a more severe, violent, and chronic pattern of antisocial behaviour (Douglas et al., 2018; Leistico et al., 2008). Moreover, research has shown that adults with psychopathic traits often have long histories of conduct disorder since childhood (Patrick, 2007). Over decades, as previously pointed out, there have been numerous attempts to detect developmental precursors of psychopathy albeit many concerns have been raised about

the applicability of the psychopathy construct to children and adolescents.

Due to the still-developing personality, it may be difficult to reliably distinguish psychopathic traits from features of normative adolescent development. For example, common characteristics among adolescents such as impulsiveness and sensation seeking could be misinterpreted as pathological manifestations of a psychopathic personality rather than transitory psychosocial changes typical of development during childhood and adolescence (Piquero et al., 2012; Seagrave & Grisso, 2002; Steinberg, 2002).

Hence, given that caution must be taken when labeling youth as “psychopathic”, several attempts to identify a specific constellation of personality traits recalling the construct of psychopathy and that could be reliably identified in some inappropriate behavior of children and adolescents (Forth et al., 1990) have been carried out. Overall, several cross-sectional and longitudinal studies have shown a relationship between psychopathy, globally intended, and antisocial behaviour, aggression, and delinquency among youth (for an overview, see Frick & Dickens 2006; Frick & White 2008). However, as developmental theories and research in the domain of juvenile psychopathy have progressed, increasing attention has been paid to the labelled *callous-unemotional* traits which represent affective/interpersonal component of the psychopathy. Many studies agree that callous-unemotional traits that are characterized by an interpersonal style involving egocentrism, callous use of others, poor empathy and emotionality, lack of guilt and remorse, and uncaring attitudes towards the consequences of one’s actions are critical for designating a subgroup of antisocial youth with a particularly severe, ag-

gressive, and stable pattern of antisocial behavior (Frick & White, 2008). Such youth may differ in their social/emotional, cognitive, and biological functioning compared to their counterparts with no callous-unemotional traits (Frick & Viding, 2009). Furthermore, callous-unemotional traits have been proven to be of a relevant clinical utility in predicting the onset of severe antisocial outcomes during adolescence and early adulthood, such as self-reported delinquency, serious crimes, juvenile and adult arrests, and antisocial personality disorder criterion, over and above other well-established predictors of antisocial outcomes (McMahon et al., 2010).

Consistent with the findings of the studies mentioned above, several implications for assessing and treating antisocial and aggressive behavior in children and adolescents could result. In this regard, for example, among the criteria for Conduct Disorder pointed out in the fifth revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5 ed.; American Psychiatric Association, APA, 2013), callous-unemotional traits have been added with the specification of “With Limited Prosocial Emotions” in order to provide greater information about current and future impairment and to plan more effective intervention for antisocial youth (Frick & Nigg, 2012).

Beyond the personality characteristics, several cognitive processes have been linked to antisocial behavior during adolescence. Consistent with social-cognitive theories (Crick & Dodge, 1994), according to which people act upon their interpretation of social events, previous research agrees that the presence of deviant or immoral thinking patterns increases the likelihood of antisocial behavior (e.g., Gannon et al., 2007).

In terms of such moral cognitive processes, the thinking patterns displayed by antisocial individuals are commonly referred to as “cognitive distortions”, a general umbrella term comprising a variety of theories consistent with a social-cognitive approach and constructs such as neutralization techniques (Sykes & Matza, 1957), moral disengagement (Bandura et al., 1996) and social-cognitive biases (e.g., self-serving cognitive distortions; Barriga & Gibbs, 1996; Gibbs et al., 1995) that link behavior to the way one thinks about situations.

The term “cognitive distortions” has its origin in Sykes and Matza’s (1957) theory of “neutralization”, which posits that individuals who act in an antisocial way try to resolve the discrepancy between their behavior and internalized social norms through cognitive rationalization processes that deny or minimize the seriousness of their acts or justify them in some way (Maruna & Mann, 2006). Such cognitive processes are viewed as preceding a particular delinquent act and are therefore conceived as being proximally involved in the causation of crime and violence (Sykes & Matza, 1957).

According to Gibbs and colleagues’ “three Ds” formulation (Gibbs et al., 1996), self-serving cognitive distortions—defined as “inaccurate or biased ways of attending to or conferring meaning upon experiences” (Barriga et al., 2001, p. 1)—well represent schemas that influence the individual’s encoding, interpretation, attribution, and evaluation and thereby constitute common limitations characterizing antisocial youth’s social cognitions (Gibbs, 2013; Gibbs et al., 1995; Nas et al., 2005). Depending on their function, cognitive distortions have been distinguished by Barriga and Gibbs (1996) into *primary* and *secondary*. Specifically, while *primary* distortions are

“self-centered” attitudes, thoughts, and beliefs which reflect more immature moral judgment stages and serve as main motivators or “pretexts” of aggressive behaviors, the *secondary* support the “self-centered” attitudes (Gibbs, 2013) and take the form of pre- or post-rationalizations or “excuses” for facilitating aggressive behaviors. Indeed, the function of *secondary* distortions is to emotionally and cognitively overcome dissonance between individual moral standards and behavioral transgressions and neutralize potential empathy and guilt towards the victim, thus avoiding damage to one’s self-image when engaging in antisocial conducts (Bandura, 1991; Sykes & Matza, 1957). Such cognitive rationalizations may assume the form of: (i) *Blaming others* (i.e., “misattribution of blame for victimization or misfortune to innocent others”; Barriga & Gibbs, 1996, p. 334); (ii) *Minimizing/Mislabeling* (i.e., antisocial behavior is depicted as not really harmful or even as an admirable outcome); and (iii) *Assuming the worst* (i.e., gratuitous attribution of hostile intentions to others in a social situation; treating the worst scenario as inevitable; believing that improvement of one’s own or others’ behavior is impossible). These distorted thinking patterns are assumed to block moral judgment development because one does not consider oneself to be responsible for one’s antisocial behavior, as those fulfill defensive or neutralizing role (Gibbs, 1991).

An increasing number of researchers provided evidence that the self-serving cognitive distortions could be considered proximal precursors of several types of externalizing behaviors among youth, such as bullying (Dragone et al., 2020), youth gang involvement (Bacchini et al., 2020) and aggression, conduct problems, and delinquency (Barriga et al., 2008; Gini et al., 2011; Helmond et al.,

2015). Noteworthy, some of these studies (Dragone et al., 2020) found longitudinal and reciprocal associations between moral cognition and antisocial behaviors among peers as bullying, suggesting that the more a youth makes use of self-serving cognitive distortions when interpreting social events, the more likely he or she is inclined to perpetrate bullying, and, vice-versa, the more youth is involved in bullying perpetration, the more he or she uses cognitive distortions to justify his or her immoral actions and maintain a positive image of him/herself.

This evidence support Gibbs' conceptualization of secondary cognitive distortions as a form of post-rationalizations or "excuses" serving individuals to emotionally and cognitively overcome dissonance that they prove when they violate moral and social norms. Accordingly, such cognitive rationalization processes could account for the lack of empathy, guilt, and remorse typical of psychopaths when harming others.

The Interplay between Psychopathic Personality Traits and Maladaptive Cognitive Schemas as Cognitive Distortions

As previously pointed out, psychopathy is a complex personality disorder characterized by distinct affective, interpersonal, and behavioral components. Traditionally, psychopathy has not been associated with cognitive dysfunction, at least with regard to intelligence, memory, and executive function (e.g., Cleckley, 1982). According to Cleckley's (1941) classical clinical observations, psychopaths possess good intelligence, particularly verbal, creative, practical, and analytic abilities. Despite their good overall intelligence

and cognitive ability, psychopaths seem to exhibit some impairments in several aspects of moral decision-making (Bacchini et al., 2021).

A wide literature highlighted that problematic personality styles (e.g., grandiosity, lack of empathy, etc.) may be a potential driving force behind an individual's criminogenic thinking (e.g., Mandracchia et al., 2015) intended as an offshoot of antisocial cognition, specifically as "thought content and process conducive to the initiation and maintenance of habitual law-breaking behavior" (Walters, 2006, p. 88). Consistently, the existing research on moral-cognitive functioning of psychopaths revealed that such individuals show abnormal regulation of morally appropriate behavior, although they seem to know right from wrong (Cima et al., 2010). Indeed, most psychopaths are able to read other people's emotional states, but they use such knowledge as a means to better manipulate and harm others, probably because of their "insensitivity" to the rich texture of others' emotions (Hoffman, 2000, p. 36). In addition, Haidt (2012) claimed that "psychopaths reason but do not feel [...]" (pp. 61–62), recalling what Johns and Quay (1962) said many years earlier about psychopaths, individuals who represent the lexical meaning of emotions, but they do not experience their affective value (they seem to "know the words but not the music" of emotions).

Accordingly, callous-unemotional traits, which can be considered the hallmark of the psychopathic personality (Blair, 2013), are characterized by general disregard for others, lack of empathy and, more in general, deficient emotional activation. Thus, it is not surprising that when faced with making moral decisions to sacrificial moral dilemmas which involve harming others for the sake of a

greater good, individuals higher on these personality traits are more prone to be guided by a pragmatic cost-benefit analysis rather than their immediate feelings about harmful actions (e.g., kill one person in order to save five others), irrespective of their consequences, reaching to a primarily utilitarian response.

Most of the previous studies in the field of sacrificial moral dilemmas, has evidenced that both incarcerated, clinical psychopaths (Koenigs et al., 2012; Rosas & Koenigs, 2014), as well as non-incarcerated, subclinical individuals with psychopathic tendencies are more willing to accept utilitarian solution when facing emotionally aversive moral dilemmas (Bacchini et al., 2021; Balash & Falkenbach, 2018; Bartels & Pizarro, 2011; Djeriouat & Trémolière, 2014; Gao & Tang, 2013; Glenn et al., 2010; Kahane et al., 2015; Langdon & Delmas, 2012; Patil, 2015). However, other studies failed to find significant associations (Cima et al., 2010; Glenn et al., 2009; Pujol et al., 2012) or showed that utilitarian judgments were positively correlated only with certain dimensions of psychopathy, namely Blame Externalization, Machiavellian Egocentricity, Carefree Nonplanfulness, and Impulsive Non-conformity, but not with Stress Immunity, Social Potency or Fearlessness (Gao & Tang, 2013).

Taken together, the findings of the studies discussed above seem to suggest that utilitarian judgments do not result from an impartial concern for the greater good; instead, they are more likely to be related to higher endorsement of a permissive attitude toward instrumental harm (Kahane et al., 2017) which could result in a reduced emotional aversion to harming others (Duke & Bègue, 2015). As Kahane et al. (2015) also noted, “it seems rather implausible that individuals with antiso-

cial traits or lower levels of empathy are especially morally committed to promoting the greater good, or harbor a special concern for humanity as a whole” (p. 194).

To further confirm this hypothesis, it could be relevant to refer to those pro-violence attitudes or beliefs as “self-exculpatory” cognitive distortions, which seem to be strictly related to psychopathic traits so that they constitute the cognitive expression of these traits (Chabrol et al., 2011). In this regard, while some interpersonal characteristics of psychopathic traits such as pronounced egocentricity and manipulation of others to satisfy their own needs could bear a straightforward relation to the primary self-centered cognitive distortions, the lack of empathy and guilt or remorse when harming others—considered the key affective feature of psychopathy—may result from the neutralization processes of secondary cognitive distortions which serve to cognitively overcome dissonance between individual moral standards and behavioral transgressions and neutralizing potential empathy and guilt.

However, to date, there is a paucity of research on the nature of cognitive processes related to maladaptive schemas characteristics of psychopathic traits, especially from a moral perspective as that developed by Gibbs and colleagues (1996) in their theoretical formulation of cognitive distortions. Among the few existing studies, Chabrol et al. (2011) found that psychopathic traits and self-serving cognitive distortions were both significant independent predictors of antisocial behavior among a community sample of adolescents, with a higher impact of cognitions in youth higher in psychopathic traits compared to those lower in such traits. Starting from the findings by Chabrol et al. (2011), van Leeu-

wen et al. (2014) explored the pathways linking psychopathic traits, self-serving cognitive distortions, and antisocial behavior in a sample of high school students testing two competing models, one in which indirect effects through self-serving cognitive distortions accounted for the effect of callous-unemotional traits on antisocial behavior, and one in which indirect effects through callous-unemotional traits accounted for the relationship between self-serving cognitive distortions and antisocial behaviors. Both models revealed significant indirect effects, suggesting both pathways are possible and confirming the reciprocal associations between callous-unemotional traits and cognitive distortions.

From the results of the studies discussed above highlighting the key role played by cognitive processes in the dynamic of the relationship between psychopathic traits and antisocial behavior, as well as the mutual reinforcement of self-serving cognitions and psychopathic traits in promoting a vicious developmental spiral, several implications for both the prevention and treatment of antisocial behavior among youth could arise. These research findings have clinical implications for implementing interventions aimed to counteract antisocial behaviors during adolescence, suggesting the potential benefits of targeting self-serving cognitive distortions in therapeutic settings, especially for youth with high levels of psychopathic personality traits.

Treatment Implications to Prevent Antisocial Behaviors among Youth with Psychopathic Personality Traits

Since psychopathy has been widely recognized as a clinically relevant personality marker for the development and persistence of antisocial behaviors during adolescence (e.g.,

Frick & Dickens, 2006; Frick & White, 2008) and consistently with previous studies having found the cognitive rationalization processes as self-serving cognitive distortions crucial for understanding the typical thinking patterns displayed by psychopathic individuals (e.g., Chabrol et al., 2011), some treatment implications could be pointed out.

For a long time, at least partially due to the well-established genetic as well as neurobiological influences in the etiology of psychopathic traits, the clinical literature has been quite skeptical about the possibility of treating psychopaths and pessimistic about the outcome of therapy for such individuals. From the early reflections by Cleckley (1941, 1982), psychopaths were described as neither benefiting from treatment nor capable of forming the emotional bonds required for effective therapy. Therefore, at least initially, psychopathy has been identified as one area of psychopathology stubbornly resistant to treatment, and it is still not uncommon to find incarceration suggested as the “treatment” of choice for psychopaths (Jenkins, 1960; Revitch, 1975).

However, over the last decades, consistent with the emerging evidence about the role of environmental conditions in influencing the manifestation of psychopathic traits phenotypes, a growing body of research focused on exploring whether the treatments’ effectiveness could vary depending on the levels of psychopathic traits, also examining what factors could improve treatments outcomes among psychopaths. For example, in an attempt to clarify for whom and under what conditions the treatment might work to counteract externalizing problem behaviors among a community sample of adolescents, Manders et al. (2013) investigated three dimensions of psychopathic traits (i.e., callous-unemotional traits, narcissism, and impulsiveness) as both

a predictor and moderator of treatment effectiveness. In line with previous studies showing callous-unemotional or psychopathic traits to predict poor response to treatment (e.g., Frick et al., 2014a) and higher rates of recidivism after release from treatment programs for adjudicated adolescents (e.g., Frick & Dickens 2006), Manders et al. (2013) found that callous-unemotional traits and narcissism moderated the effect of the intervention on externalizing problem behaviors. More specifically, adolescents with antisocial behaviour who were also characterized by high levels of callous-unemotional traits and narcissism were less responsive to the treatment, reporting less positive treatment outcomes compared with adolescents lower in these psychopathic traits. As suggested by the authors, these findings highlight the importance of tailoring treatment specifically to meet the needs of youth with high levels of psychopathic traits to achieve the same treatment gains for these target groups.

Noteworthy, several meta-analytic studies on the outcomes of the treatment of psychopathic individuals involved in crime-related offenses reported that, besides therapeutic communities which represented one of the experimental treatments for psychopathy (Harris & Rice, 2006), cognitive-behavioral therapy is often recommended for psychopathic offenders (e.g., Andrews & Bonta, 1994; Brown & Gutsch, 1985; Serin & Kuriyuchuk, 1994) and has been found to be effective in reducing recidivism (Allen et al., 2001; Andrews et al., 1990).

Following a review of 42 studies, Salekin (2002) found that, on average, 62% of patients benefitted from psychotherapy which appeared to be effective for major classes of therapy (psychoanalytic, cognitive-behavioral, and eclectic) and a variety of outcomes

(improving interpersonal relationships, increasing the capacity for feeling remorse and empathy, reducing the amount of lying, being released from probation, and maintaining a job). In addition, the author concluded that individual psychotherapy, involving treatment of family members, and input from groups, may be more effective. Moreover, in his meta-analysis, Salekin (2002) reported positive results for both therapeutic communities and cognitive-behavioral therapy, with 63% of psychopaths benefiting (i.e., had no convictions in the follow-up) from the cognitive-behavioral program and 43% benefiting from the therapeutic community program. Focused on changing the problematic thinking patterns, cognitive-behavioral rehabilitation programs are expected to contribute to the reduction of criminal behavior (Allen et al., 2001). Referring to youth with psychopathic traits, research evidence showed that elaborate, intensive, and multicomponent cognitive-behavioral treatment programs which target “criminogenic needs” (i.e., personal characteristics correlated with recidivism) might induce improvement among them (e.g., Loeber et al., 2009; Salekin et al., 2010).

Among the main issues regarding the treatment of young psychopaths in the juvenile justice systems or clinical settings, there are those related to the treatment-related components and outcomes. Most of the previous studies on this topic reached mixed findings. While some studies have shown significant associations between psychopathic traits and several treatment-related variables (e.g., non-compliance, Falkenbach et al., 2003; quality of participation, O’Neill et al., 2003; treatment infractions or time to completion, Spain et al., 2004), some others have found only weak detrimental effects of the psychopathy

on treatment course and outcomes (e.g., Murdock-Hicks et al., 2000; Rogers et al., 1997, 2004). For example, in their study with a sample of 81 male adolescent offenders from a residential treatment program for conduct disorder and substance abuse, Rogers et al. (1997) found that psychopathy was modestly associated with treatment non-compliance and physical aggression. In addition, Murdock-Hicks et al. (2000), who examined 82 adolescent inpatients from a state hospital mandated for treatment of substance abuse with comorbid disruptive behavior disorders, found that though psychopathic youth showed a significantly higher rate of violent infractions than did non-psychopathic individuals, however, the rates of nonviolent infractions were similar among psychopathic and non-psychopathic individuals concluding that psychopathy contributed very little to the prediction of total infractions. Conversely, Falkenbach et al. (2003), using a sample of male and female adolescent offenders involved in a court diversion treatment program, reported significant associations between psychopathic traits and program non-compliance and re-arrest during a one-year follow-up. Furthermore, Spain et al. (2004) examined 85 adjudicated offenders recruited from a residential treatment facility who were remanded for rehabilitation services. The authors found a positive association between psychopathy and incidents of physical aggression and administrative infractions while enrolled in the treatment program. However, though psychopathy also predicted a longer time to complete the treatment program, it did not predict whether individuals would have a treatment level dropped.

Other treatment-related variables have been taken into account in relation to psychopathic traits, such as treatment attendance,

quality of participation, and clinical improvements. In this regard, O'Neill et al. (2003) examined 64 male adolescent offenders who were in an intensive outpatient treatment program for substance abuse, finding that psychopathic youth displayed worse attendance, lower quality of participation, lower clinical improvement ratings, and higher recidivism. Consistent with these findings, the study by Rogers et al. (2004), carried out with a sample of 82 male and female adolescent offenders recruited from a state hospital treating conduct disorder and substance abuse, found that the course of treatment and the level of improvement were predicted primarily by the breadth of polysubstance abuse with modest but independent contributions by psychopathic characteristics, and aggressive conduct-disorder symptoms. Nevertheless, management problems during the hospital course and the treatment outcome were improved even for those scoring high on psychopathy measures, thus raising some crucial issues related to the potential amenability of psychopathic traits to generic interventions.

Moving toward the treatment outcomes with psychopathic youth, some of the previous studies highlighted that psychopathy-like youth who received sufficient doses of treatment appeared to benefit from it, with significant and positive associations between the treatments and the later recidivism risk (e.g., Caldwell et al., 2006; Gretton et al., 2001). For example, using a prospective research design with a sample of juvenile offenders, Caldwell et al. (2006) found that the treatment was associated with relatively slower and lower rates of serious recidivism. More specifically, compared with a group of high psychopathy adolescents from traditional correctional institutions, high psychopathy youth offenders treated in an intensive treatment program, the

Mendota Juvenile Treatment Center (MJTC), were significantly less likely to recidivate at two-year follow-up violently. Furthermore, some years later, Caldwell et al. (2012) attempted to expand their previous results and reported that treatment at the MJTC led specifically to reductions in psychopathy-related features, such as callous/unemotional, narcissistic, and impulsive personality traits. These changes in personality characteristics predicted, in turn, improvements in institutional behavior and treatment compliance. Taken together, the findings from Caldwell et al. (2006, 2012) seem to suggest that the MJTC may reduce psychopathic violence by reducing psychopathic traits.

Similarly, Gretton et al. (2001) retrospectively examined 220 adolescent male offenders mandated to an outpatient treatment program. The authors found that among offenders with high levels of psychopathic traits, only 30% who completed the treatment program recidivated violently, compared with 80% who did not complete the program. Although these findings seem to highlight the beneficial treatment effect for the psychopathic offenders, it is also possible that those who remained in treatment were more motivated to change than were those who dropped out, regardless of psychopathy level.

Trying to summarize what has emerged from the review of studies discussed above regarding the potential treatment implications of working with psychopathic individuals, together with the undisputed criticalities that may be encountered when dealing with psychopathic youth, both in juvenile justice systems or clinical settings, in terms of motivation to change, manipulation, lack of real emotion, and the risk associated with conducting therapy with these individuals, it should be recognized the need to overcome the rooted

view that such personality disorder is untreatable (Salekin et al., 2010). Indeed, the longstanding “Nothing Works” doctrine (Farabee, 2005; Martinson, 1974) has in recent decades been replaced by the “What Works” approach to offender treatment. Specifically, with respect to the treatment progress for psychopathic adolescents, the aforementioned studies seem to suggest that such individuals could benefit from treatment or did no worse than non-psychopathic youth. However, although some promising results appeared from the review carried out, most of the treatment literature on the reduction of psychopathic traits and/or behavioral problems associated with psychopathy is still far away from reaching a general consensus.

Conclusions and Future Directions

Together with the issue about the appropriateness of the construct of psychopathy for children and adolescents that, to date, still appears not fully resolved, the complexity of the available treatments regarding the prevention and intervention with psychopathic youth leads us to conclude with some alternative considerations. If, on the one hand, the existing literature does not allow to take a unique and absolute position in either direction about whether juvenile psychopathy is or not a treatable condition, on the other hand, the promising results emerged in the field of prevention of antisocial behaviors, especially when considering the recidivism rates, among psychopathic youth (e.g., Caldwell et al., 2006; Gretton et al., 2001) arguing in favor of the possibility that some aspects of psychopathy could be malleable to treatment.

Although because of their attitudes and behaviors, psychopathic offenders have been predominantly seen as unresponsive to treatment,

with most of them are more likely to be disruptive and noncompliant with treatment than non-psychopathic youth, thus supporting the longstanding misconception of psychopathy as an untreatable condition, some recent review of existing empirical research on the treatment of psychopathy have suggested that some progress could be achieved (e.g., Rüter & Hildebrand, 2022). Referring, specifically, to the prevention and contrast of antisocial behaviors among psychopathic youth, both in clinical and forensic settings, given the widely established inherent affective/interpersonal, cognitive, and behavioral disfunctions characterizing psychopathic individuals which could hinder their capacity to make real change, it could be helpful to tailor treatments to meet the specific needs of this group of youth characterized by high levels of psychopathic traits. In an attempt to identify the principles of best-evidence correctional treatment (Andrews & Bonta, 1994; Andrews et al., 1990), it has been recognized that highly structured and cognitive-behavioral treatments may be more effective than others for reducing the recidivism of juvenile and adult offenders. For example, as reported by the Salekin's (2002) meta-analysis, the most effective treatment approach was cognitive-behavioral, closely followed by psychoanalytic psychotherapy, and its efficacy resulted improved when the treatment was delivered for a longer period and for youths, compared with adults. Accordingly, many researchers have identified cognitive-behavioral therapies as promising program components—although significant variations were found in the effect sizes across studies (e.g., Hollin & Palmer, 2009; Landenberger & Lipsey, 2005; Pearson et al., 2002; Wilson et al., 2003).

The cognitive-behavioral approach is based on the main assumption that dysfunctional

thinking patterns contribute to the development and persistence of antisocial behavior. By altering dysfunctional attitudes, beliefs, and thought processes, it would be possible to modify antisocial aspects of personality and consequent behaviors (Robinson & Porporino, 2003). Therefore, cognitive and behavioral changes are assumed to reinforce each other by teaching new skills in areas where at-risk youth show deficits (Milkman & Wanberg, 2007).

As discussed above, among the core areas where psychopaths exhibit deficits is that related to the cognitive processes underlying moral decision-making (e.g., Bacchini et al., 2021). When faced with the choice of whether or not it is permissible to sacrifice one human life to save five others (i.e., the sacrificial moral dilemmas), adolescents who were more prone to make use of moral disengagement mechanisms, as psychopaths (e.g., Petruccioli et al., 2017; Sijtsema et al., 2019), were more likely to choose utilitarian solutions (i.e., solutions irrespective of the intrinsically moral wrongness of an action). Consistently, previous studies have found the tendency to make self-serving cognitive distortions when interpreting social events as the cognitive expression of psychopathic traits (Chabrol et al., 2011), specifically as neutralization processes able to explain the lack of guilt and remorse over harm to others.

Therefore, ascertained the key role played by cognitive rationalization processes in the dynamic of the relationship between psychopathic traits and antisocial behavior as well as the mutual reinforcement of each other in perpetuating the cycle of violence (Chabrol et al., 2011; van Leeuwen et al., 2014), some relevant treatment implications may emerge. Specifically, to better prevent and counteract antisocial behavioral manifestations among

youth with psychopathic traits, it must be underscored the importance of early identifying their self-serving cognitive distortions and the potential benefits of focusing in therapeutic settings on the cognitive restructuring, i.e., the reframing or correction of biased thinking patterns, which is expected to result in behavioral changes (Maruna & Copes, 2005; Maruna & Mann, 2006). In this regard, future research may help determine whether such cognitive-behavioral components are effective, and the potential benefits of tailoring treatment programs to groups with high levels of callous-unemotional or psychopathic traits. To date, most existing cognitive-behavioral treatment approaches focus on reducing psychopaths' recidivism risk by addressing their antisocial cognitions, teaching them more effective coping skills and enhancing their motivation towards prosocial goals and behaviors (Polaschek & Skeem, 2018).

Among the cognitive-behavioral programs which have provided empirical support for the efficacy of including such components in the treatment of antisocial youth (Gibbs et al., 2013; Leeman et al., 1993; McCart et al., 2006), the Equipping Youth to Help One Another (EQUIP) program (Gibbs et al., 1995) has been developed within Gibbs' theoretical framework and originally designed for the treatment of juvenile offenders. This program is aimed at educating young people at risk or with behavioral problems in thinking and acting responsibly. By combining a peer-helping (or mutual-help) and a skills-training (or cognitive-behavioral) approach, the EQUIP is expected to decrease self-serving cognitive distortions (particularly relating to anger management), improve social skills, and stimulate moral judgment development (Potter et al., 2001). Based on a positive peer culture, in which individuals feel responsible for each

other and help one another, the EQUIP program could have a great public impact given that it promotes, in the long-term, the development of a nonviolent and law-abiding culture, which represents the crucial condition for ensuring success in preventing and reducing youth's involvement in antisocial behaviours.

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