

Juvenile Delinquency and Dark Personality Patterns in Turkey: A Review of the Biopsychosocial Foundations of Machiavellianism, Narcissism, and Psychopathy

Gülçin İtirlı Aslan^{1*}, Aydemir Bozkaya², Kürşat Şahin Yıldırım³

¹Ege University, EBİLTEM, İzmir, Turkey

²St Clements University, Alumni Member

³15 November University of Cyprus, Nicosia, Cyprus

*Corresponding Author

DOI: <https://doi.org/10.47772/IJRISS.2026.100600641>

Received: 10 June 2026; Accepted: 15 June 2026; Published: 01 July 2026

ABSTRACT

Juvenile delinquency is not merely a category of legal infraction; it is the product of complex interactions among biological predispositions, psychological development, and social structure. This review examines how the dark personality patterns known as the Dark Triad—namely Machiavellianism, narcissism, and psychopathy—take shape during childhood; how genetic predispositions, epigenetic mechanisms, early-life trauma, and Turkey-specific sociocultural pressures contribute to this process; and what multilevel interventions are necessary to reduce delinquency in children. Rather than interpreting the determinants of dark personality characteristics within a deterministic biologism framework, the article employs a gene–environment interaction model. Turkey-specific dynamics, including power culture, authoritarian parenting, chronic economic stress, and the narcissistic reinforcement function of social media, are examined within a rigorous scientific framework. The article concludes by proposing an integrative approach that combines neurobiology, developmental psychology, sociology, and public policy in order to understand childhood delinquency.

Keywords: Dark Triad; juvenile delinquency; epigenetics; trauma; power culture; Turkey; dark personality; child antisocial behaviour

INTRODUCTION

Scientific interest in understanding the darker dimensions of human behaviour has grown substantially over the past two decades. Yet studies that address these patterns comprehensively within the Turkish sociocultural context remain remarkably scarce. Research on children and adolescents who display delinquent behaviour typically examines either individual clinical characteristics or family and environmental conditions in isolation. Both international and national evidence, however, make clear that these two dimensions are inseparable. According to the World Health Organization (2024), a considerable proportion of antisocial behavioural patterns observed in individuals under eighteen years of age emerge from the accumulation of early-life risk factors, including neglect, physical violence, and chronic poverty. In Turkey, this picture is further complicated by structural inequalities and the distinctive tensions generated by rapid social transformation.

The Dark Triad concept in personality psychology defines Machiavellianism, narcissism, and psychopathy as three overlapping yet distinguishable dimensions (Paulhus & Williams, 2002). Although these three patterns share core features—namely empathy deficits, instrumentalisation of others, and indifference to social norms—they follow distinct developmental trajectories. The formation of these characteristics during childhood is jointly determined by genetic predispositions, epigenetic changes, early attachment patterns, and the sociocultural environment. Krizan and Herlache (2018) proposed that these patterns can be positioned on a single dimensional continuum, ranging from mild interpersonal coldness to severe antisocial behaviour. This approach also explains

why early intervention is so critical: intervening when patterns are still mild avoids far more costly clinical interventions later in life.

Turkey offers a particularly compelling context for this discussion. On one side stands a cultural structure grounded in collectivist values, strong family ties, and emotional proximity; on the other, a pervasive power culture, status pressure, authoritarian parenting patterns, and the biological burden created by chronic economic stress. In recent years, accelerated by social media, a narcissistic performance culture in which visibility and sense of worth have become conflated is growing increasingly visible. Against this backdrop, the article addresses three core questions: How do dark personality patterns form biologically? How do Turkey-specific environmental factors shape this formation? What multilevel interventions are needed to reduce delinquency in children?

This review aims to offer an interdisciplinary synthesis by integrating the perspectives of psychology, sociology, and genetics. Methodologically, it constitutes a narrative review drawing on national and international sources encompassing the Dark Triad literature, juvenile delinquency research, epigenetic findings, and Turkey-specific sociocultural analyses. The primary inclusion criteria were publication in peer-reviewed journals or credible institutional reports, conceptual relevance to the Dark Triad or to delinquency, and applicability to the Turkish context. The article scrupulously avoids deterministic language and instead adopts a probabilistic, multicausal framework.

The Dark Triad: Conceptual Framework and Integrated Structure

The Dark Triad was first articulated as a comprehensive framework by Paulhus and Williams (2002). All three dimensions are associated with socially harmful outcomes, yet each operates through different psychological mechanisms. Table 1 presents a comparative analysis of these dimensions in terms of core characteristics, neurobiological correlates, and cultural rewards.

Table 1. Comparative Analysis of Dark Triad Dimensions

Dimension	Machiavellianism	Narcissism	Psychopathy
Core feature	Strategic manipulation; long-term self-interest calculus	Grandiosity; need for admiration; superiority	Callousness; impulsivity; antisocial behaviour
Empathy	Instrumental; deployed when advantageous	Superficial; ego-serving	Structurally absent or severely impaired
Conscience	Present but suppressed	Partial; ego-threat-contingent	Weak or non-functional
Social relations	Control and instrumentalisation	Mirroring; approval-seeking	Exploitation; harm; dominance
Neurobiological correlate	PFC–amygdala dysregulation	Reduced activation in empathy circuits	Amygdala hypoactivation; serotonin dysregulation
Cultural reward (Turkey)	“Being clever”; strategic cunning	Status; visibility; social validation	Power; inducing fear; risk-taking bravado

Note. PFC = prefrontal cortex. Table compiled by the authors based on Paulhus and Williams (2002), Hare (1993), and Raine (2013).

Machiavellianism: Strategic Manipulation and Power-Oriented Relationships

Machiavellianism is defined as a personality pattern characterised by the manipulation of others for personal gain, emotional detachment, and pragmatic indifference toward ethical values (Christie & Geis, 1970, as cited in Paulhus & Williams, 2002). Machiavellian individuals engage in long-term self-interest calculations, instrumentalise trust relationships, and maintain a strategic composure in social settings. Although this pattern does not meet the formal diagnostic criteria for antisocial personality disorder, it harbours a capacity for chronic

harm in interpersonal relationships. In the Turkish context, Machiavellianism may be nurtured by a cultural value framework in which cunning is equated with intelligence.

Evidence that Machiavellian individuals advance more readily in hierarchical, status-oriented organisational structures suggests that this pattern is not merely an individual pathology; it is also selectively rewarded by specific institutional climates (Paulhus & Williams, 2002). In environments where power culture prevails, individuals who maximise short-term gains rather than attend to long-term consequences gain structural advantages in institutional advancement. This reward mechanism creates a social-learning cycle that systematically excludes ethical accounting. Children and adolescents internalise this cycle through direct observation, and sometimes through being left unchallenged. The greater visibility of Machiavellian strategies during periods of political and economic crisis in Turkey illuminates this structural link.

Narcissism: Need for Admiration and the Fragile Ego

Narcissism is characterised by a sense of superiority, a need for admiration and approval, and deficits in empathy. Pathological narcissism was addressed by Kernberg (1975) within an object-relations framework and interpreted as a reflection of early developmental disruptions. Twenge and Campbell (2009) documented a generational increase of narcissistic tendencies in Western societies. This increase bears a strong relationship to social media, since likes and follower counts have become external indicators of self-worth. In Turkey, this process produces a distinctive dynamic in which visibility and sense of worth become conflated (Demircioğlu & Göncü-Köse, 2021).

To understand narcissism conceptually, it is important to distinguish two subtypes: grandiose narcissism and vulnerable (fragile) narcissism. Grandiose narcissism is accompanied by a genuine belief in superiority, aggression, and low anxiety. Vulnerable narcissism, by contrast, features hypersensitivity to ego threat, latent shame, and a propensity to go on the offensive (Krizan & Herlache, 2018). Turkey's visibility culture particularly nurtures vulnerable narcissism, which depends on external approval mechanisms. The loss of likes or criticism on social-media platforms can, within this fragile structure, trigger disproportionate rage or collapse. The formation of identity during adolescence in this environment blurs the boundary between healthy self-worth and performative identity.

Psychopathy: Absence of Empathy and the Antisocial Pattern

Psychopathy was addressed by Hare (1993) as a complex personality pattern defined by superficial charm and glib speech, an absence of remorse and guilt, chronic deceptiveness, and impulsivity. Frick and White (2008) demonstrated how callous-unemotional (CU) traits can be identified during childhood and why these traits constitute critical markers for early intervention. Psychopathy is the most robustly documented dimension of the Dark Triad at the neurobiological level, showing significant correlations with amygdala hypoactivation (Glenn et al., 2009).

The most fundamental feature distinguishing psychopathy from the other two dimensions is the structural absence of affect: in Machiavellianism, conscience is suppressed; in narcissism, it is mobilised in defence of ego threat; in psychopathy, conscience and empathy may be functionally absent. McAdams and Zapata-Gietl (2015) noted that this distinction carries critical practical significance for both clinicians and policymakers: interventions designed for children with high levels of CU traits must differ fundamentally from standard conduct-disorder protocols. In these children, the threat of punishment does not trigger fear-based avoidance motivation; instead, strong positive reinforcement and interest-based relational strategies may yield more promising results.

Neurobiological Foundations: Brain, Gene, And Epigenetics

Understanding the neurobiological underpinnings of dark personality patterns is critically important for explaining the extent to which these characteristics are “selected for” versus “conditioned.” The key point requiring emphasis, however, is this: no single gene determines whether a person will commit crimes or become a psychopath. What is determinative is the gene–environment interaction. Neurobiological research over the past

two decades, aided by advances in neuroimaging technologies, has increasingly clarified the brain-level correlates of criminal and antisocial behaviour (Raine, 2013). These findings demonstrate that moral reasoning is not merely a social construct; it is also supported by neuronal circuits involving the prefrontal cortex, amygdala, and their interconnections. Structural or functional disruptions in these circuits can directly impair an individual's capacity to internalise social rules (Davidson et al., 2000).

Prefrontal Cortex, Amygdala, and Decision-Making

The prefrontal cortex (PFC) is responsible for ethical reasoning, impulse control, and the anticipation of consequences. Functional and structural anomalies in this region are consistently observed in individuals who display antisocial behaviour (Davidson et al., 2000). The amygdala, meanwhile, assumes a central role in fear, empathy, and threat responses. Neuroimaging studies by Glenn et al. (2009) revealed that the amygdala exhibits below-normal activation during psychopathy-related decision-making processes. These findings suggest that at least a subset of criminal behaviour stems not from ethical deliberation but from neurological dysfunction.

The particular importance of this neurological perspective lies in understanding the biological limitations of punishment-based policies directed at criminal behaviour. PFC development is not complete until the end of adolescence; this means that young people have structurally different risk-assessment and impulse-control capacities from adults. In light of these findings, Raine (2013) argued that treatment standards for children and adolescents in adjudicative processes need to be reassessed. The extent to which Turkey's juvenile justice system has internalised this neurodevelopmental perspective remains an open and consequential question.

Serotonin, Dopamine, and Impulsivity

The serotonin system performs a critical function in suppressing impulsive aggression. Low serotonergic activity has been strongly associated with impulsivity and violent tendencies, particularly in male individuals (Raine, 2013). The dopaminergic system, by contrast, is directly connected to reward, motivation, and the pursuit of power. The stimulation of the dopaminergic loop by social media's approval mechanisms—such as likes and endorsements—may intensify narcissistic reinforcement (Demircioğlu & Göncü-Köse, 2021). This neurochemical relationship takes on a particularly compelling dimension when evaluated in light of the intensity of social-media use in Turkey.

The serotonin–dopamine imbalance is associated not only with individual impulsivity but also with what can be termed power addiction. When the motivation to obtain and preserve power intersects with the dopaminergic reward cycle, it becomes likely that the individual organises social relationships to maximise their own power position rather than another's well-being. This neurochemical mechanism partially explains why Machiavellian patterns are so resistant and why they persist despite selective therapeutic interventions. Moreover, the decline of serotonin levels under stress offers a biological explanation for why antisocial behavioural tendencies increase during periods of crisis.

The MAOA Gene and Trauma Interaction

A landmark study by Caspi et al. (2002) demonstrated that, among individuals who experienced maltreatment during childhood, the risk of exhibiting antisocial behaviour in adulthood differed significantly depending on whether they carried the low-activity variant of the MAOA gene. This finding reveals a sequential predisposition–trauma interaction: the gene alone is insufficient and trauma alone is insufficient; together they create elevated risk. The popular media's mischaracterisation of the MAOA gene as the “warrior gene” has opened doors to deterministic and reductionist interpretations. Scientific evidence, however, demands caution against such oversimplification.

Considering what this finding means for Turkey is important. Rates of physical abuse and neglect directed at children in Turkey are known to be at levels that cannot be ignored (TÜİK, 2023). Children who carry certain gene variants and are simultaneously exposed to maltreatment face substantially greater risk at both the individual and social levels. This information should be used not for social stigmatisation but for developing

early screening and preventive interventions. The ethical boundaries of genetic screening must be maintained with the utmost rigour, particularly where children are concerned.

Epigenetics: The Intergenerational Transmission of Trauma

Epigenetic research perhaps offers the most striking findings in this field. Pioneering studies by Meaney (2001) and Weaver et al. (2004) demonstrated that the quality of parenting leaves lasting epigenetic changes on the child's stress-response system. These findings do not merely emphasise the importance of early-life experience; they suggest that societies transmit not only their cultures but also their forms of stress from generation to generation. Turkey's successive economic crises, large-scale migration waves, and collective social traumas deserve to be reinterpreted in this context. The neurobiological stress burden of a generation growing up under chronic stress may accumulate not only at the individual level but epigenetically as well.

Epigenetic mechanisms such as DNA methylation and histone modification can leave permanent marks on cortisol-regulating genes (e.g., NR3C1) and on the serotonin-transporter gene (SLC6A4). These changes directly shape the individual's future stress responses, emotional-regulation capacity, and social behaviours. Even more striking is the growing evidence that some epigenetic changes can be transmitted to the next generation. This mechanism of intergenerational epigenetic transmission raises the possibility that Turkey's historical accumulation of stress—stretching from the political violence of the 1970s to the economic turbulence of the present day—may have produced generations that carry its biological imprint.

Developmental Factors: Attachment, Parenting, And Early-Life Experience

Experiences during childhood play a determinative role in the development of dark personality characteristics. Yet this influence is not unidirectional: the child's temperament also shapes parental behaviour. This reciprocal interaction constitutes one of the most productive research areas in developmental psychology (Cicchetti, 2010). Contemporary research highlights the importance of the cumulative effect of risk factors: a single adverse experience rarely leads to a lasting pattern, whereas the simultaneous presence of multiple risk factors multiplies the risk exponentially. This accumulation model provides a critical framework for understanding the conditions that place children living in low-socioeconomic regions of Turkey in a particularly vulnerable position.

Insecure Attachment and Personality Development

From an attachment-theory perspective, insecure attachment patterns—particularly avoidant and disorganised attachment types—can generate chronic distrust, emotional distance, or a need for control in interpersonal relationships. Children raised with disorganised attachment patterns have been observed to be more prone to Machiavellian and antisocial behaviours in later life (Cicchetti, 2010). The mechanism underlying this effect is the early internalisation of survival strategies that involve instrumentalising others in order to protect against potential threats.

Studies examining attachment quality in Turkey note significant differences between urban and rural regions. Conditions in which family unity is disrupted by migration, in which the father is absent for extended periods, or in which chronic economic stress makes family tension a permanent state seriously threaten the emotional consistency necessary for the development of secure attachment. Children raised under these conditions may experience relationships not as safe bonding environments but as domains of threat or resource extraction.

Authoritarian Parenting and the Turkish Context

Kağıtçıbaşı (2005) framed the Turkish family structure using the autonomous-relational model, in which both the child's autonomy and relational connectedness are supported. In practice, however, authoritarian parenting, emotional inconsistency, and patterns of conditional affection have been well documented as quite prevalent. In an environment where physical punishment is sometimes justified as part of child-rearing, the child may enter cycles of either full dependence or covert rebellion. In either case, the healthy development of empathy capacity becomes increasingly difficult. Empirical research with Turkish samples has likewise documented associations

between Dark Triad traits and impulsivity-related, sensation-seeking tendencies that are relevant to antisocial outcomes (Satici et al., 2019).

Since the research of Adorno et al. (1950) on the authoritarian personality, the systematic study of how authoritarian rearing practices breed prejudice, hostility, and aggressive projection in later life has been well established. From this perspective, authoritarian parenting creates not only individual pathology risk but also a generational dynamic that undermines social cohesion. The message “be strong, do not let yourself be crushed,” combined with empathy deficits, prepares the child for both the victim role and, in later stages, the potential perpetrator role.

Callous-Unemotional Traits: Why Early Detection Matters

Frick et al. (2014) emphasised that callous-unemotional (CU) traits are not merely a clinical diagnostic criterion; they are also a critical variable that determines what type of intervention should be designed. The early recognition of these traits during childhood also explains why classic punishment-based discipline approaches prove ineffective for these children. Children with CU traits benefit not from punishment but from positive reinforcement and empathy training. It is evident that this awareness has not yet found adequate space within Turkey's child-protection and educational systems.

A particularly noteworthy point is that children with high levels of CU traits can show positive development under the right conditions. Brendgen et al. (2001) found that high-quality parental care and consistent positive relational experience can partially prevent these traits from crystallising into adverse behavioural outcomes. This finding constitutes one of the strongest arguments against determinism: biology is not destiny, but environment is not unconditional either. Investment in Turkey's early-childhood education and family-support programmes would ensure that this window of plasticity is utilised in the most productive manner possible.

Sociocultural Dynamics in Turkey and Dark Personality

Turkey harbours distinctive sociocultural conditions that may nurture dark personality patterns. This does not mean that the society is “especially pathological”; rather, it offers an exceptionally valuable analytical terrain for understanding how specific structural dynamics exert formative influences on universal psychological mechanisms.

Power Culture, Status Pressure, and Machiavellian Reward

In a period that can be framed with Bauman's (2000) concept of liquid modernity, traditional moral reference points are dissolving while new norms have yet to consolidate. Turkey is among the countries where this process is experienced most intensely. The informal value system summarised as “appear strong, avoid being crushed, win at any cost” both legitimises and rewards Machiavellian strategies. This cultural atmosphere—in which cunning is paired with intelligence and empathy with naivety—offers a meaning framework that normalises unethical behaviour, especially for younger generations.

Moffitt (1993) explains criminal behaviour through two distinct pathways: life-course-persistent and adolescence-limited patterns. In the life-course-persistent pattern, early neurobiological risks combine with environmental deprivation. Turkey's rapid urbanisation, economic inequality, and limited inter-class social mobility may produce conditions in which these two pathways become conflated.

Social Media, Narcissistic Performance, and Identity Crisis

The question of whether social media increases narcissistic tendencies continues to be debated in the academic literature. What is certain, however, is this: social media makes existing narcissistic tendencies visible and amplifies them. Demircioğlu and Göncü-Köse (2021) reported a significant relationship between Dark Triad traits and social-media use among Turkish samples. More importantly, the conflation of visibility and sense of worth at a critical period of identity development in Turkish youth undermines the construction of healthy self-worth. When the dopaminergic approval loop takes precedence over genuine relationship quality, both attachment and empathy capacity can suffer damage.

Economic Stress, Chronic Anxiety, and Biological Burden

Chronic economic stress creates a biological burden that weakens long-term prefrontal-cortex functioning, particularly decision-making and empathy (Davidson et al., 2000). Turkey's high inflation, youth unemployment, and economic uncertainty over the past decade leave an impact not only at the sociological level but at the neurobiological level as well. Brendgen et al. (2001) demonstrated that in children raised in chronic-stress environments, reactive aggression and proactive aggression follow different risk pathways. Ignoring this backdrop when assessing criminal behaviour in Turkish children would fundamentally mislead both diagnosis and intervention.

Family Trauma, Cycles of Violence, and Intergenerational Transmission

Fromm (1973) examined the biological origins of destructiveness alongside social conditioning and drew attention to the decisive role of family dynamics in the intergenerational transmission of violence. Epigenetic research supports this observation at the biomolecular level: both the cortisol-response systems and the DNA-methylation patterns of individuals chronically exposed to stress during childhood can be permanently altered. According to TÜİK (2023) data, reported rates of physical abuse and neglect of children in Turkey remain at concerning levels. It is unavoidable that these conditions, particularly in low-socioeconomic regions, feed patterns of delinquency.

The Ethics of “Being Clever”: The Blurring Line Between Cunning and Wrongdoing

In Turkey's informal cultural discourse, the concept of uyanık olmak (“being wised up” or “being street-smart”) functions as an ambiguous status marker that simultaneously connotes both intelligence and moral flexibility. The concept is used to denote seeing moves that others cannot and acting in a way that protects one's own interests, and it can expand to encompass violations of ethical boundaries. The “naive” individual, by contrast, is equated with insufficiency or weakness. This discursive framework creates a quiet normative structure that legitimises Machiavellian patterns at the cultural level.

Evaluated from a social-learning-theory perspective, the effect of this cultural discourse on children is striking. When children observe that “clever” individuals are rewarded in family and peer environments while empathic and generous individuals are labelled weak or “naive,” this observation can accelerate the internalisation of self-interest-oriented relational patterns. The question of how competitive culture affects the biological stress system also gains meaning within this framework: children growing up under chronic competitive pressure, with chronically elevated cortisol levels, are fed a perpetual biological threat signal that weakens PFC functioning. This primes survival strategies, rather than ethical-reasoning capacity, to take precedence.

Data on Juvenile Delinquency in Turkey

TÜİK (2023) data reveal that the majority of children subject to criminal prosecution in Turkey are concentrated in the 15–17 age group, with bodily injury, theft, and drug-related offences appearing at the top of the offence categories. These statistics, however, reflect only the visible dimensions of delinquent behaviour. When unreported cases, institutional neglect, and inadequacies in diagnostic processes are taken into account, the real picture is far more complex. The literature emphasises that child-psychiatry resources in Turkey fall far behind need, and that the vast majority of children who exhibit delinquent behaviour receive no mental-health support before entering the system.

Arslan et al. (2012), in research examining bullying patterns among Turkish children and adolescents, found that involvement in the bully–victim cycle was associated with a range of health symptoms, and that this association followed a cyclical dynamic rather than a unidirectional one. This cyclical pattern provides an important clue for understanding the conditions that facilitate the transition of a victimised child to the perpetrator position over time. A significant proportion of delinquent children have themselves previously been subjected to abuse, neglect, or bullying. This reality makes it necessary to read delinquency not only as individual malice but also as a response to having been harmed.

Juvenile Delinquency in Turkey: A Risk-Factor Framework

Table 2 below classifies risk factors contributing to delinquency in children at the biological, psychological, and sociocultural levels and examines their Turkey-specific contextual counterparts. Figure 1 illustrates how these factors interact with one another within a conceptual model.

Table 2. Risk-Factor Framework for Juvenile Delinquency in the Turkish Context

Risk factor	Mechanism	Turkish context
Genetic predisposition	Serotonin, dopamine, and MAOA gene variants increase risk for impulsivity and low empathy	Not deterministic alone; environmental interaction required
Early trauma	Epigenetic changes permanently alter stress-response systems; attachment security disrupted	High rates of physical punishment, neglect, and migration-related family disruption
Authoritarian parenting	Suppresses autonomy development; creates submission or covert-rebellion cycles	Dominant paternal authority; conditional affection; emotional inconsistency
Chronic economic stress	Elevated cortisol weakens PFC functioning; empathy decreases; survival responses dominate	High inflation, youth unemployment, persistent financial anxiety
Social-media environment	Dopaminergic approval loops reinforce narcissistic patterns; identity fuses with visibility	Social-media use above world average; identity crisis prominent in youth
Power culture and status pressure	Machiavellian strategies rewarded; unethical success normalised	“Being cunning” equated with intelligence; empathy coded as weakness

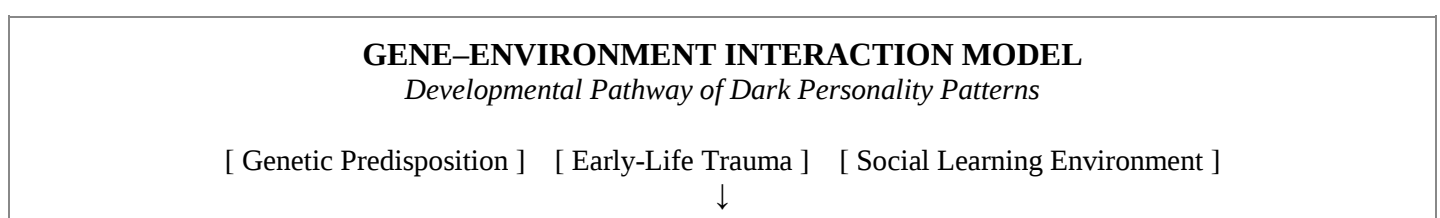
Note. Risk factors are not determinative in isolation; they must be evaluated in interaction with one another. Table compiled by the authors based on the relevant literature.

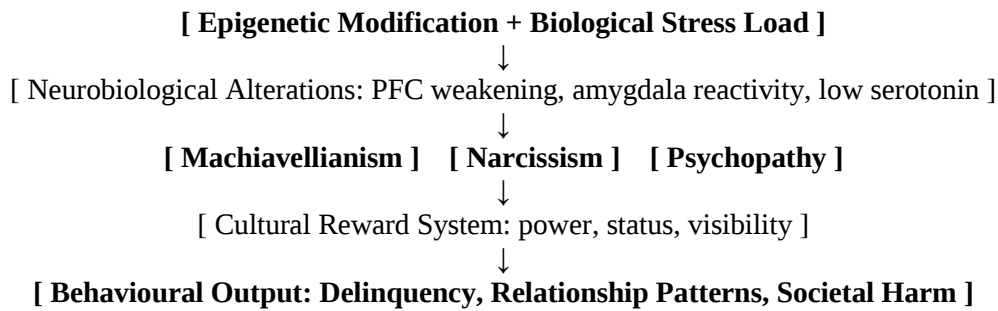
When this table is examined, the most important observation is that no single factor deterministically produces criminal behaviour on its own. Genetic predisposition does not translate into pathology without appropriate environmental conditions. Authoritarian parenting can be counterbalanced by social-support systems and the child's individual resilience. What is determinative is how many risk factors co-occur and to what extent protective factors remain functional.

Conceptual Model: Gene, Trauma, Culture, And Crime

The conceptual model at the centre of this review is summarised in Figure 1. The model illustrates how genetic predisposition, epigenetic change, neurobiological development, parenting, and cultural-reinforcement processes interact with one another. The critical principle here is that this process is not linear but circular. The cultural environment can increase the neurobiological stress burden; this burden can prepare the ground for epigenetic changes; and these changes can create a neurological substrate for narcissistic and antisocial patterns.

Figure 1. Developmental Pathway of Dark Personality Patterns: Gene–Environment Interaction Model





Note. PFC = prefrontal cortex. Arrows represent probabilistic, not strictly causal, relationships. Figure created by the authors.

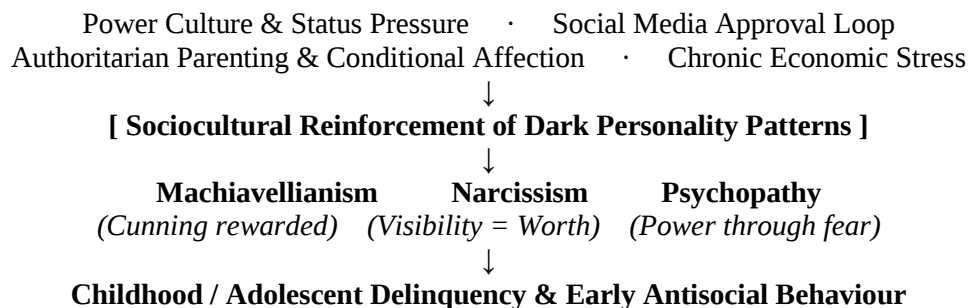
One of the most important implications of this model is that societies transmit not only their cultures but also their forms of stress from generation to generation.

For Turkey specifically, this means that successive economic crises, political uncertainties, and collective social traumas may have left a biological legacy. Epigenetic research has now moved this idea beyond mere speculation.

Figure 2 illustrates how Turkey-specific sociocultural pressures reinforce dark personality patterns and how these patterns manifest as delinquency in children.

Figure 2. Sociocultural Pressure and Dark Personality in Turkey: Conceptual Framework

SOCIOCULTURAL PRESSURE AND DARK PERSONALITY IN TURKEY: CONCEPTUAL FRAMEWORK



Note. Figure created by the authors. Arrows indicate systemic influence pathways, not strictly causal relationships.

DISCUSSION

This review defends three central theses. First, dark personality patterns are neither purely biological nor purely social phenomena; they emerge from the unpredictable interactions of genes, trauma, and culture. Second, Turkey offers a distinctive and compelling context for this interaction. Third, any policy aimed at preventing delinquency will remain ineffective to the extent that it ignores this multilevel reality.

The research of Adorno et al. (1950) on the authoritarian personality documented early on how authoritarian rearing conditions nurture defence mechanisms such as prejudice, aggression, and outward projection. The authoritarian-parenting literature in Turkey reflects culturally specific manifestations of these findings.

The World Health Organization (2024) demonstrates that children subjected to maltreatment face dramatically increased risk of antisocial behaviour, substance use, and entry into cycles of violence.

Another critical dimension of the discussion concerns societal perceptions of criminal behaviour in youth. In Turkey, children and adolescents who commit offences frequently become subjects of moral judgement while the systemic conditions feeding this behaviour recede into the background. Yet Zara and Farrington (2016), in their comprehensive research on criminal recidivism, showed that early intervention and structural social support significantly reduce recurrence. Individual moral judgement forecloses these intervention opportunities.

The emergence of concepts such as gaslighting, love bombing, and devaluation as prominent features of everyday discourse is itself noteworthy. The diffusion of these concepts through social media increases psychological literacy but simultaneously generates a paradoxical danger: concepts can also be turned into tools of manipulation. An individual educated about narcissism may use this knowledge defensively or, equally, to refine their manipulation. This is why grounding psychological education in an ethical foundation is indispensable.

The growing diffusion of mental-health concepts in Turkey, alongside increasing psychological literacy, constitutes a positive development for social awareness, yet it also brings another risk. The stripping of concepts from their clinical contexts for shallow circulation on social media can negatively affect both diagnostic processes and interpersonal relationships.

The excessive use of labels such as “narcissist,” “psychopath,” or “sociopath” in everyday language erodes the real clinical weight of these personality dimensions while simultaneously producing a greater stigmatisation risk toward individuals who carry these patterns. The accurate transmission of scientific knowledge through appropriate channels is the primary means of minimising these risks.

The question “Why is kindness mistaken for naivety?” constitutes perhaps the deepest stratum of this discussion. In a cultural atmosphere in which empathy and prosocial behaviour are perceived as signs of weakness, individuals pay a social price for expressing these qualities.

This payment mechanism gradually erodes society's collective empathy capacity over time, blurring the line between the pressure to appear strong and genuine strength. Fromm's (1973) analyses of the social origins of destructiveness identified this dynamic clearly even in the 1970s. Today, combined with the new visibility pressures created by the digital age, this analysis carries a particularly sharp meaning for adolescents.

Intervention Recommendations: A Multilevel Approach

An effective strategy for reducing delinquency in children in Turkey requires simultaneous intervention at multiple levels. Table 3 presents these levels of intervention along with concrete implementation recommendations.

Table 3. Multilevel Intervention Framework

Level	Strategy	Recommendations for Turkey
Individual	Early detection and psychotherapeutic support	Strengthen school-based counselling; trauma-informed care models; CBT and schema-therapy protocols
Family	Parental education and democratic discipline	Family counselling to transform conditional-affection patterns; non-violent discipline programmes; secure-attachment interventions
School	Social-emotional learning (SEL) and empathy training	Integrate SEL into curricula; peer-mediation programmes; positive school-climate policies; teacher psychological-literacy training

Society	Social-policy reform and structural support	Economic stress-reduction policies; effective enforcement of child-protection laws; media-literacy programmes; early-childhood investment
Research	Turkey-specific longitudinal studies	Gene–environment epigenetic studies; Dark Triad norms in Turkish samples; cohort studies on intergenerational trauma transmission

Note. SEL = social-emotional learning. Intervention recommendations developed based on Frick et al. (2014), Cicchetti (2010), and Zara and Farrington (2016).

Early-Childhood Interventions and Attachment-Focused Programmes

The interventions with the strongest evidence base for reducing dark personality patterns and delinquency in the international literature are programmes applied during early childhood. Parent–child interaction therapy (PCIT), video-feedback interventions (Video Interaction Guidance), and home-visit-based family-support programmes significantly improve attachment security and parenting quality. Adapting and scaling these programmes for Turkey would substantially increase early-intervention capacity, particularly in at-risk families. However, cultural adaptation is essential for these programmes to succeed: direct translations that fail to account for the collectivist and autonomous-relational dimensions of the Turkish family structure could undermine programme acceptance and effectiveness.

School-Based Social-Emotional Learning Programmes

Social-emotional learning (SEL) interventions systematically target the teaching of emotion recognition, empathy development, problem-solving, and conflict-management skills. Strong meta-analytic evidence exists that these programmes reduce antisocial behaviour and bullying. Turkey's existing school psychological-counselling system offers a potential infrastructure for implementing these interventions, though both the ratio of guidance teachers per school and the competency of this personnel in SEL applications require serious strengthening. Empathy-training modules integrated into the curriculum would carry strategic value not only for preventing delinquency but also for building a broader sense of social cohesion and civic awareness.

Public Policy and Structural Interventions

The effectiveness of individual- and family-level interventions will remain limited without improvement in structural conditions. In Turkey, reducing economic inequality, implementing strong social-protection policies targeting child poverty, and ensuring access to quality early-childhood education for low-income families can be evaluated as structural interventions that reduce the biological stress burden. Effective enforcement of child-protection legislation—not only on paper but at the level of daily practice—is also critically important. Within this framework, evaluated from a public-administration perspective, the most cost-effective policies for reducing juvenile delinquency are not post-offence interventions but pre-offence structural measures. The evidence that early investment is far more efficient than late intervention—economically, socially, and biologically—is both strong and consistent.

The most important point to emphasise in the intervention approach is that the specialised approaches developed for children with callous-unemotional traits differ fundamentally from standard discipline protocols. These children benefit not from punishment but from high-quality positive reinforcement and consistent empathy modelling. Turkey's school psychological-counselling system must be strengthened both quantitatively and qualitatively in order to develop the capacity to grasp this distinction.

Arslan et al. (2012), in research examining bullying and victimisation among Turkish children and adolescents, found that involvement in the bully–victim cycle was widespread and associated with adverse health symptoms. This finding signals that interventions must focus not only on delinquent behaviour but also on school climate and peer dynamics.

Limitations And Future Research Directions

The primary limitation of this review stems from the scarcity of Turkey-specific longitudinal empirical studies. Long-term studies with Turkish samples tracking Dark Triad components from childhood through adulthood remain highly limited. Existing Turkish-sample studies—such as the adaptation and validation of Dark Triad measures (Eraslan-Çapan et al., 2015; Özsoy et al., 2017)—represent important steps, yet fall short of filling the existing gaps in terms of sample sizes, age range, and methodological diversity. Moreover, this review draws on published academic sources and therefore carries limitations inherent to publication bias, restricted access to Turkish-language sources, and the exclusion of grey literature.

The priority area for future research is the application of epigenetic designs examining gene–environment interaction to Turkish samples. Longitudinal studies tracking the interaction of MAOA, the serotonin transporter (5-HTTLPR), and dopamine-receptor genes with various environmental factors will provide the groundwork for both causal analysis and the development of personalised interventions. A second priority area is the systematic incorporation of CU-trait measurement among individuals who come into contact with Turkey's child-protection and justice system. This measurement will provide a clinically critical variable for determining the type of intervention required.

A third research priority is the urgency of longitudinal studies tracking the effects of social-media use on dark personality development in Turkey. Existing cross-sectional studies are insufficient to provide information about causal direction: does social media increase narcissism, or do narcissistic individuals use social media more intensively? Answering this question is essential for determining the correct orientation at both the clinical and policy levels. Finally, regionally comparative studies tracking the effects of Turkey's rapid urbanisation and migration dynamics on attachment security and family functioning would provide critical data for the efficient allocation of intervention resources.

CONCLUSION

This review argues that understanding juvenile delinquency in Turkey requires neither moral judgement alone nor single-variable psychological explanation. The darker dimensions of human behaviour emerge from the combination of neurobiology, childhood experiences, trauma, social-reward systems, and genetic predispositions. Societies transmit not only their cultures but also their forms of stress from generation to generation. The distinctive pressures Turkey creates in this transmission process—including power culture, authoritarian parenting, chronic economic stress, and a narcissistic performance environment—create fertile ground for the development of dark personality patterns. Acknowledging this is not blaming society; it is asking the right questions for intervention. Do children commit crimes because they are bad, or do they grow up in conditions where the system teaches them to be bad? Scientific evidence demonstrates that the second question offers a more productive research and policy framework. In a society where empathy has grown weary, rebuilding empathy is both an individual and a collective responsibility.

The multilevel perspective jointly produced by psychology, sociology, genetics, and public administration provides a far more comprehensive understanding than any single discipline can offer. Discussing the behavioural development of children and young people in Turkey solely through the discourse of moral or personal responsibility amounts to squandering the intervention opportunities that science provides. The biopsychosocial integrated model offers an indispensable framework for both identifying and activating these opportunities. The scientific investment Turkey makes in this area will contribute to future generations growing up not only in better health but also in a more equitable social structure.

Declarations

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Ethics Statement

This article constitutes a review of previously published research. No primary data were collected from individuals, and formal ethics-committee approval was therefore not required.

Conflict of Interest

The authors declare no conflict of interest.

Data Availability

Data sharing is not applicable to this article, as no new data were created or analysed in this study. All sources discussed are available in the cited publications.

Clinical Trial Number

Not applicable.

REFERENCES

1. Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. N. (1950). The authoritarian personality. Harper & Row.
2. Arslan, S., Hallett, V., Akkas, E., & Akkas, O. A. (2012). Bullying and victimization among Turkish children and adolescents: Examining prevalence and associated health symptoms. *European Journal of Pediatrics*, 171(10), 1549–1557. <https://doi.org/10.1007/s00431-012-1782-9>
3. Bauman, Z. (2000). *Liquid modernity*. Polity Press.
4. Brendgen, M., Vitaro, F., Tremblay, R. E., & Lavoie, F. (2001). Reactive and proactive aggression: Predictions to physical violence in different contexts and moderating effects of parental monitoring. *Journal of Abnormal Child Psychology*, 29(4), 293–304. <https://doi.org/10.1023/A:1010378617052>
5. 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(5582), 851–854. <https://doi.org/10.1126/science.1072290>
6. Cicchetti, D. (2010). Resilience under conditions of extreme stress: A multilevel perspective. *World Psychiatry*, 9(3), 145–154. <https://doi.org/10.1002/j.2051-5545.2010.tb00297.x>
7. Davidson, R. J., Putnam, K. M., & Larson, C. L. (2000). Dysfunction in the neural circuitry of emotion regulation: A possible prelude to violence. *Science*, 289(5479), 591–594. <https://doi.org/10.1126/science.289.5479.591>
8. Demircioğlu, Z. I., & Göncü-Köse, A. (2021). Effects of attachment styles, dark triad, rejection sensitivity, and relationship satisfaction on social media addiction: A mediated model. *Current Psychology*, 40(1), 414–428. <https://doi.org/10.1007/s12144-018-9956-x>
9. Eraslan-Çapan, B., Satici, S. A., Yılmaz, M. F., & Kayış, A. R. (2015, October 7–10). Karanlık Üçlü Ölçeği: Türkçeye uyarlama çalışması [The Dark Triad Scale: Turkish adaptation study] [Conference presentation]. 13th National Psychological Counselling and Guidance Congress, Mersin, Turkey.
10. Frick, P. J., Ray, J. V., Thornton, L. C., & Kahn, R. E. (2014). Can callous-unemotional traits enhance the understanding, diagnosis, and treatment of serious conduct problems in children and adolescents? *Psychological Bulletin*, 140(1), 1–57. <https://doi.org/10.1037/a0033076>
11. Frick, P. J., & White, S. F. (2008). Research review: The importance of callous-unemotional traits for developmental models of aggressive and antisocial behavior. *Journal of Child Psychology and Psychiatry*, 49(4), 359–375. <https://doi.org/10.1111/j.1469-7610.2007.01862.x>
12. Fromm, E. (1973). *The anatomy of human destructiveness*. Holt, Rinehart and Winston.
13. Glenn, A. L., Raine, A., & Schug, R. A. (2009). The neural correlates of moral decision-making in psychopathy. *Molecular Psychiatry*, 14(1), 5–6. <https://doi.org/10.1038/mp.2008.104>
14. Hare, R. D. (1993). *Without conscience: The disturbing world of the psychopaths among us*. Guilford Press.

15. Kağıtçıbaşı, Ç. (2005). Autonomy and relatedness in cultural context: Implications for self and family. *Journal of Cross-Cultural Psychology*, 36(4), 403–422. <https://doi.org/10.1177/0022022105275959>
16. Kernberg, O. F. (1975). Borderline conditions and pathological narcissism. Jason Aronson.
17. Krizan, Z., & Herlache, A. D. (2018). The narcissism spectrum model: A synthetic view of narcissistic personality. *Personality and Social Psychology Review*, 22(1), 3–31. <https://doi.org/10.1177/1088868316685018>
18. McAdams, D. P., & Zapata-Gietl, C. (2015). Three strands of identity development across the human life course. In K. C. McLean & M. Syed (Eds.), *The Oxford handbook of identity development* (pp. 81–94). Oxford University Press.
19. Meaney, M. J. (2001). Maternal care, gene expression, and the transmission of individual differences in stress reactivity across generations. *Annual Review of Neuroscience*, 24, 1161–1192. <https://doi.org/10.1146/annurev.neuro.24.1.1161>
20. Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*, 100(4), 674–701. <https://doi.org/10.1037/0033-295X.100.4.674>
21. Özsoy, E., Rauthmann, J. F., Jonason, P. K., & Ardiç, K. (2017). Reliability and validity of the Turkish versions of Dark Triad Dirty Dozen (DTDD-T), Short Dark Triad (SD3-T), and Single Item Narcissism Scale (SINS-T). *Personality and Individual Differences*, 117, 11–14. <https://doi.org/10.1016/j.paid.2017.05.019>
22. Paulhus, D. L., & Williams, K. M. (2002). The Dark Triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6), 556–563. [https://doi.org/10.1016/S0092-6566\(02\)00505-6](https://doi.org/10.1016/S0092-6566(02)00505-6)
23. Raine, A. (2013). *The anatomy of violence: The biological roots of crime*. Pantheon Books.
24. Satıcı, S. A., Kayış, A. R., Yılmaz, M. F., & Eraslan-Çapan, B. (2019). Üniversite öğrencilerinde karanlık üçlü kişilik özellikleri ile dürtüsellik ve heyecan arama davranışları arasındaki ilişkilerin incelenmesi [Examining the relationships between Dark Triad personality traits, impulsivity, and sensation seeking in university students]. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 9(54), 857–881.
25. Turkish Statistical Institute [TÜİK]. (2023). Child statistics: Crime and justice. <https://data.tuik.gov.tr>
26. Twenge, J. M., & Campbell, W. K. (2009). *The narcissism epidemic: Living in the age of entitlement*. Free Press.
27. Weaver, I. C. G., Cervoni, N., Champagne, F. A., D'Alessio, A. C., Sharma, S., Seckl, J. R., Dymov, S., Szyf, M., & Meaney, M. J. (2004). Epigenetic programming by maternal behavior. *Nature Neuroscience*, 7(8), 847–854. <https://doi.org/10.1038/nn1276>
28. World Health Organization. (2024). Child maltreatment [Fact sheet]. <https://www.who.int/news-room/fact-sheets/detail/child-maltreatment>
29. Zara, G., & Farrington, D. P. (2016). *Criminal recidivism: Explanation, prediction and prevention*. Routledge.