

# Antisocial Personality Disorder Overview

Xinyue Chang<sup>1, \*, †</sup>, Jiaxin Li<sup>2, \*, †</sup>

<sup>1</sup>Oxford College of Canada, Toronto, Ontario, Canada

<sup>2</sup>The Attached Middle School To Jiangxi Normal University, Nanchang, Jiangxi, China

\*Corresponding author. Email: <sup>1</sup>plasticree2814@hotmail.com, <sup>2</sup>69008@nchu.edu.cn

<sup>†</sup>These authors contributed equally.

## ABSTRACT

The main content of this report reviews the past studies on antisocial personality disorder (ASPD) and summarizes its etiology, impacts, prognosis, treatment approaches, and recommendations for future development. The literature review section focuses on the possible factors for antisocial personality disorder from a biological, psychological, and sociological perspective, its impacts on the individual and society, and some common treatments. The recommendations at the end of the report provide possible directions for future investigations. For the overall conclusion, people can be led to better recognition of and greater attention to this commonly misunderstood mental illness.

**Keywords:** *Antisocial personality disorders; Psychopath; Sociopath; Crime*

## 1. INTRODUCTION

Antisocial personality disorder describes individuals with a widespread pattern of antisocial, irresponsible, or illegal behavior that is typically impulsive or violent, with little concern for the harm or suffering caused to others and difficulty establishing long-term social and personal connections. Antisocial personality disorder begins early in life, usually before age 8, and is diagnosed at 18 if the symptoms persist [1]. While estimates of the frequency of ASPD in the general population differ between research and nations, most studies suggest a prevalence of 2% to 3% in the general population [2]. It is especially common in prison settings—rates of ASPD to be 47 % in men and 21 % in women [3]. The purpose of this article is to give readers a comprehensive understanding of antisocial personality disorder. Based on the literature, we will introduce the concept, current background, etiology, negative effects, prognosis, and treatment in detail, to eliminate the misunderstanding and confusion of readers.

## 2. LITERATURE REVIEW

In the following article, an antisocial personality disorder is described in detail based on the previous and current references to correct the wrong cognition of antisocial personality disorder and analyse it from different perspectives.

### **2.1. Current Background of Antisocial personality disorder**

#### **2.1.1. Age and Gender**

The tendency of antisocial personality disorder distribution is closely related to age and gender. The interaction of gender and age plays a non-negligible role in the prevalence, adverse events, the duration of onset, and lifetime psychiatric comorbidity of ASPD. Although there is not much research in this area, some data and cases still support the relevant views.

Since people with antisocial personality disorder are more common in early and middle age and the prevalence of ASPD will decrease with age, research regarding ASPD typically focuses on children and younger adults. But one of the Cambridge University research on the Development of Youth Crime demonstrates a considerable continuity of antisocial personality from childhood to adulthood. However, the proportion of antisocial children who become antisocial adults is highly dependent on the cut-off point utilized. The study is a prospective longitudinal survey of 411 males of various ages (10, 14, 18, and 32). The result is: on average, almost half of the males who were the most antisocial in their early years also became the most antisocial later in life; meanwhile, almost half of the males who were the most sociopathic later in life were also the most sociopathic as

children. The weakest, although most important, connection occurred between the ages of 18 and 32 [4].

Gender is also a crucial variable in the field of mental health due to the actual and perceived differences between men and women. The study of Fazel and Danesh in 2002 has shown the prisoners worldwide indicate a prevalence of ASPD of about 50% for men and about 20% for women. According to the Epidemiological Catchment Area survey, between 2% and 4% of men and 0.5% to 1 % of women met the DSM-III-R criteria for ASPD [3]. The gender difference is also related to the structure of the brain. A recent study showed that differences in the prefrontal cortex structure might partly explain the gender differences in antisocial behavior [5].

### *2.1.2. Psychopath and Sociopath*

Both psychopathy and sociopathy were included in antisocial personality disorder in the DSM-5. The DSM-5 diagnoses them must meet the following criteria. Those criteria can be mainly divided into 4 parts: Impairments in self-functioning, Impairments in interpersonal functioning, Antagonism, and Disinhibition. More specific characteristics lie below them [1]. Due to the same criteria, the boundary between sociopath and psychopath is always very blurred.

In recent years, there has been a lot of discussion over how to effectively distinguish them. Although both psychopaths and sociopaths result from the interaction between genetic and environmental factors, many researchers believe that psychopaths are born, maybe due to a genetic predisposition. In contrast, sociopaths are typically produced by their surroundings.

#### *2.1.2.1. Psychopathy*

Psychopathy may be linked to physiological abnormalities in the brain. According to research, Psychopaths have weak brain structures that are widely considered to be responsible for emotion regulation and impulse control. Psychopaths, in general, struggle to develop harmonious relationships with people. Instead, they establish phony, superficial connections that are meant to be managed in a way that benefits the psychopath the most. People are viewed as pawns to be manipulated to further the psychopath's objectives. Psychopaths rarely feel guilty about their actions, no matter how much they harm others.

However, psychopaths are frequently perceived by others as charming and trustworthy, with regular, conventional employment. Some even have families and appear to be in loving relationships with their partners [6]. When a psychopath participates in illegal conduct, they tend to do so in a way that puts them in the least amount of danger. They would precisely organize their illegal activities to avoid detection, with contingency plans in place for any circumstance.

This means that these types of people can be extremely deceptive, and they can seem very classy, polite, or even outstanding. Some of them will use this appearance to disguise themselves to better achieve their own goals.

#### *2.1.2.2. Sociopath*

Many researchers claim that sociopathy is the consequence of environmental circumstances, such as a child or adolescent's upbringing in a particularly unfavorable family, which culminates in physical violence, emotional abuse, or early trauma.

Sociopaths, on average, exhibit more impulsive and unpredictable conduct than their psychopath counterparts. While some sociopaths have difficulty developing relationships with individuals, they may be able to connect to a group or person with the same interests as them. Unlike psychopaths, most sociopaths do not have long-term occupations and do not appear to have a regular family life to the outside world [6].

They are more likely to be found as a personality disorder, they tend to be irritable and emotional, so it is difficult for people to understand them. They can sense emotions themselves and may suffer from them.

After discussing the current background, the article will introduce more specific knowledge and characteristics about APSD, including etiology, impacts, prognosis, and treatment approaches.

## *2.2. Etiology*

The etiology of ASPD cannot be solely concerned with biological, psychological, family, or social environment. The boundaries between these factors are very complex and fuzzy, and we can't say for sure yet. So if psychiatrists don't have a good understanding of their patient when making a diagnosis, they may come to the wrong conclusion and not be able to conduct appropriate treatment. So we need to study the causes as thoroughly as possible.

### *2.2.1. Biological influences-genes/brain structure*

Both gene and brain structure are the natural factors of ASPD. This perspective tells us that sometimes people with antisocial personality disorder actually decide from the moment they're born. Later in their lives, external conditions can only partially heal or intensify the symptoms

#### *2.2.1.1. Genes*

Genetic factors are very common in antisocial personality disorder. And the risk to biological relatives of females with the disorder tends to be higher than the risk to biological relatives of males with the disorder.

Because of the high heritability of antisocial personality disorder, a family history of antisocial personality disorder can directly affect future generations.

When we talk about genes, we usually think about twins. Because we can control for variables in twin studies to determine whether the factor is gene or environment. The findings on the heritability of antisocial personality disorder were also based on the telephone diagnostic interviews and following statistical data from 3,360 twins. The common and particular additive genetic, shared, and non-shared environmental influences of each illness were estimated using Results Structural Equation models. Lifelong ASPD has a heritability of 69 percent [7]. This percentage may not be accurate due to various factors, as many experiments have come to different conclusions. But heritability is a risky cause that must be considered. In addition to heredity, some specific genes contribute to antisocial personality and behavior.

In one research of 240 children with attention deficit hyperactivity disorder, children with the valine/methionine variation in the catechol O-methyltransferase (COMT) gene had more antisocial conduct than those who did not have this variant [8]. This COMT gene variation appears to interact with neonatal risk to increase the occurrence of antisocial personality and behaviors. The COMT gene variation may have affected prefrontal brain development, perhaps decreasing control over violent impulses. Its effect on the prefrontal cortex, relating to the role of the posterior prefrontal cortex in brain structure. Then, another research mentioned the MAOA gene. A longitudinal design adopted by Caspi et al. examined the influence of the MAOA gene located on the X chromosome and its possible interaction with domestic abuse. The results showed that men with low MAOA activity genotype and exposure to abuse were more likely to exhibit child behavior disorders and adult antisocial behavior than men with high MAOA activity genotype and similar abuse. Although a low MAOA genotype does not increase APB directly, its presence appears to put individuals at risk for APB [9]. It's like a trigger that can be amplified by abuse in the family to work. In subsequent studies, the serotonin transporter promoter gene (5-HTT) appears to be associated with impulsive violence. But it's important to note that these individual genes are not necessarily responsible for antisocial personality disorder [10]. They may be more deeply interacting with other factors, which will require more experiments.

### 2.2.1.2. Brain structure

A study made by Kumari et al. focused on how psychosocial deprivation, such as physical and sexual abuse as a child, affected brain anatomy in aggressive people with ASPD. They discovered that when psychosocially deprived violent people were compared to

non-deprived violent people and healthy controls, the thalamus volume was reduced. The thalamus is a structure in the brain that filters sensory input. Although the authors' theoretical hypothesis, they believe that a thalamic deficit may make it more difficult for people to suppress intrusive memories and thoughts about earlier abuse and mistreatment. In the inferior frontal region of the prefrontal cortex, they discovered a negative link between psychosocial deprivation and volume. They also discovered a negative connection between psychosocial deprivation and prefrontal cortex volume in the inferior frontal area in all participants. This area is involved in inhibition and behavioral control; deficiencies in this area can lead to an inability to plan and manage one's action [11].

Besides the thalamus, people with an antisocial personality disorder also showed reduced gray matter in the prefrontal cortex [12]. Then, in subsequent studies, regions of the dorsolateral prefrontal cortex, inferior parietal cortex, and anterior cingulate gyrus were found to be associated with lying and telling the truth. Offenders who scored high on ASPD criteria related to deception had less activity in these areas. But this study cannot show a causal relationship, and we need further experiments to prove it [13].

### *2.2.2. Environment Factors*

Analyses of adverse childhood experiences have emerged in psychological research and have consistently shown that greater and more diverse exposures to various forms of abuse, neglect, and childhood adversity are associated with a wide range of health, mental health, and behavioural problems throughout the life cycle.

A number of studies have been conducted to investigate the links between adverse childhood events and ASPD, with different results. Fergusson, Boden, and Horwood examined the relationship between childhood sexual abuse, childhood physical abuse, and ASPD used the prospective longitudinal data and discovered that the prevalence of ASPD at ages 18–21 and 21–25 was two to four times higher among those who had been sexually abused compared to those who had not. Similarly, people who had regular or serious physical abuse developed ASPD at a possibility that was two to seven times greater than those who had not been physically abused. In these studies, however, they found that only verbal abuse and nursing sexual abuse were associated with increased rates of ASPD while other types of abuse don't seem to cause it. In addition to abuse, parents who exhibit antisocial symptoms or engage in criminal behavior may also contribute to developing personality disorders in children. Still, it is not clear in this situation whether the ASPD is due to genetics or the environment. But in addition to abuse, neglect is an identifiable risk factor. Whether parents are not interested in the child or parents are not interested in the child's education, both types of

neglect can cause the child to develop antisocial personality disorder [14-17].

Not only does the family environment contribute to antisocial personality disorder, but the social factors also influence this. Surprisingly, television viewing was discovered as one of them. According to the 26-year longitudinal study of Robertson et al., which assessing a birth cohort of 1037 individuals, young adults who spent more time watching television throughout childhood and adolescence were considerably more likely to be diagnosed with ASPD and to have a criminal conviction (despite the sex, IQ, socioeconomic status, previous antisocial behavior, and parental control). The authors speculate on the processes that might explain how watching TV affects antisocial conduct. One idea is an observational learning theory, which states that behaviors seen on television are imitated or internalized. Youth may also develop normative attitudes about using aggressiveness and violence in response to specific situations, or they may become emotionally desensitized to violence or others' pain. Other factors include reduced social contacts with classmates or parents, lower educational attainment, and a greater likelihood of unemployment [18].

### **2.3. Negative effects of ASPD**

According to DSM-5, the symptom of ASPD including but are not limited to: having a strong sense of self and enjoying the pleasure of domination; use of seduction, charm, glibness, or ingratiation to achieve one's ends; moral boundaries and a sense of self-reflection are near non-existent so that people with ASPD can cheat, fabricate, and embellish without guilt; Constantly and frequently having emotional fluctuation, the slightest thing will lead to anger and retaliation; engaged in dangerous, risky, and potentially self-harming activities [1]. Therefore, we can see that these symptoms must seriously impact both individuals and society.

#### **2.3.1. Individual Effect**

It is easy to understand how people with ASPD struggle to live a regular life in a society based on these symptoms. Because they can't study or work like other people, they're more likely to be rejected, intensifying the conflict. Even if some people with ASPD can recognize their problems and regulate their behavior in specialized ways, people will classify them as dangerous and avoid them. Such prejudice and some biological factors contribute to people with ASPD's psychological problems and extreme behavior, including self-harm.

Although most people believe that people with an antisocial personality disorder will not commit suicide, the study results are not the case. According to the results of a questionnaire survey of 571 prisoners with antisocial personality disorder, the suicidal ideation of prisoners

with antisocial personality disorder ( $8.69 \pm 4.49$ ) is higher than that of non-antisocial personality disorder prisoners ( $5.05 \pm 4.07$ ). Prisoners with suicidal ideation accounted for 29.07% of the total number of prisoners with an antisocial personality disorder. Psychological problems such as anxiety, depression, and unplanned impulsivity in symptoms are all causes of suicide in people with antisocial personality disorder [19].

Based on a survey of low total serum cholesterol (TC) levels, violence, and suicidal behaviors of 250 Dutch male criminal offenders with ASPD, it was found that there was an association. Among non-violent offenders, TC levels are twice as often as they are below the median. In the research materials, violent offenders below the median TC level are 7 times more likely to die before the median age of death. Violent criminals with TC levels below the median are eight times more likely to die from unnatural causes. After excluding the 4 killed, this association still exists. The average TC level of these male offenders with ASPD is lower than that of the general male population in Finland. Low TC levels are related to the premature and unnatural death of male offenders with ASPD. However, the accuracy of the various classifications of the TC level is very poor, and the results still retain a certain degree of uncertainty [20].

#### **2.3.2. Social Effect**

The main negative impact of persons with antisocial personality disorder on society lies in their possible antisocial and criminal behavior. And the panic and fanaticism caused by people's own misunderstandings. There is a correlation between crime and ASPD, but it is not a complete cause-and-effect relationship. We can neither equate criminals with people who have antisocial personality disorder nor assume that crime is inevitable and uncontrollable for people with ASPD. People with ASPD have a high likelihood of committing a crime due to the common characteristics of people with ASPD: a lack of empathy acts of revenge for past injuries, unwarranted impulsiveness, and an innate desire to destroy and abuse. Because its criminal behavior is different from ordinary people's, it is easy to bring great harm to society.

People with antisocial personality disorder have always been considered fully responsible for their criminal behavior, even though antisocial personality disorder is a mental disorder. But in recent years, such a claim has been questioned on a theoretical basis. According to some explanations, an antisocial personality disorder is due to biological and developmental defects, which weaken the individual's sense of responsibility. Therefore, people have a strong discussion about the degree to which they should be held responsible for criminal acts and whether they should be compulsory for psychiatric treatment. In Dutch forensic practice, researchers believe that personality disorders

reduce liability and recommend that such prisoners be forced to undergo forensic treatment. Moreover, when judging criminal responsibility, experts need to consider personality disorder's impulsivity and liability characteristics. Then, they believe that emotional defects are very important and can indicate the threat or danger of the suspect to society, and there is a reason for forensic treatment [21].

From the above, we can find a difference between criminals with antisocial personality disorder and ordinary criminals. First of all, crimes committed by people with antisocial personality disorder are roughly characterized by four aspects, namely, cognitive, emotional, volitional, and behavior or motivation. Through the analysis of these characteristics, we can prevent as much as possible the negative impact of antisocial personality disorder on society [22]. In the cognitive aspect, criminals with antisocial personality disorder are self-centered and lack self-knowledge and objective evaluation of themselves. When they conflict with the established standards of society, they often argue for their own behavior and attribute all responsibility to others. Their extreme way of thinking will lead to their criminal behavior, and it is difficult to receive education and persuasion. They often know but do not abide by or even ignore traditional culture, social ethics, ethics, and legal norms. In terms of emotion, perpetrators of antisocial personality disorder are emotionally indifferent and mean and have no sense of responsibility to others. They have almost no shame, sympathy, and naturally no guilt. Sensitive and suspicious, once objective things cannot satisfy one's own needs, they will have extreme negative emotional experiences such as pain, hatred, and contempt. Often because of small stimuli trigger the urge to attack, commit impulsive violent crimes. Lack of control over emotions and regulation of behavior in the process of crime makes it easy to show a state of excessive excitement and no regrets after the crime. Punishment may cause them to have strong resistance, confrontation, and revenge. The perpetrators of ASPD have stubbornness in the will, which is prominently manifested in two aspects: the formulation of action plans and decision-making plans. In addition to impulsive crimes, criminals with an antisocial personality disorder will also plan crimes soberly. When designating a crime plan, criminals with antisocial personality disorder show extreme characteristics such as stubbornness, desperation, and arbitrariness in choosing criminal motives, the establishment of the purpose of action, and the choice of means of action. Once the criminal target is determined, even in the face of setbacks and failures, they can still overcome various internal and external disturbances from nature, physiology, psychology, and society. Repeatedly committing crimes, never give up until the goal is reached. It is even possible to deviate from objective reality, violate objective laws, expand the scope of

revenge, and kill innocent people regardless of the consequences, often ending in harming others and detrimental to oneself. In terms of behavior and motivation, the criminals with ASPD are primordial and generally have bad behavior habits that violate social norms from an early age. The criminal motive may be absurd and not as clear as normal people. Their criminal behaviors are often driven by accidental factors and cannot match the criminal motives. They are instinctive, impulsive, and fanciful. Behaving strangely and illogically. The purpose of illegal crimes is often to pursue stimulation, seek novelty, relieve psychological pressure, and even provoke social rules.

To effectively combat the crimes of people with ASPD, we should combine criminology with its characteristics and further explore the causes, criminal psychology, and social mechanisms to reduce the criminal behavior of people with ASPD.

#### ***2.4. Prognosis and treatment***

Antisocial personality disorder has long been recognized as a hard-to-treat mental illness. However, it can be prognosed. According to the study made by Moss et al. in 2002, parental interference can help to prognosis and prevent ASPD. An antisocial personality disorder is a widespread disorder with solid environmental causes if the prognosis stops ASPD development by interfering with the unhealthy environment where the patients grow [22].

For ASPD treatment, the most popular forms of treatment used for people with a co-morbid diagnosis of antisocial personality disorder and a substance use disorder include contingency management, cognitive-behavioral therapy (CBT), an integrated form of CBT, and contingency management, or control therapy [23].

Contingency management (CM) is a strategy used in alcohol and another drug (AOD) abuse treatment to encourage positive behavior change (e.g., abstinence) in patients by providing reinforcing consequences when patients meet treatment goals and by withholding those consequences or providing punitive measures when patients engage in the undesired behavior (e.g., drinking). Cognitive-behavioral therapy (CBT) is a type of psychotherapy. This form of therapy modifies thought patterns to change moods and behaviors. It is based on the idea that negative actions or feelings result from current distorted beliefs or thoughts, not unconscious forces from the past [24].

### **3. LIMITATION AND FUTURE DIRECTION**

Although existing research has revealed important information about ASPD, many areas have been neglected and need to be improved. Most of the cases, for

example, focus only on men, but that results generalize to the whole group of antisocial personality disorders. Since there are huge differences between gender, mistakes are inevitable.

In addition, both etiology and negative effects can be considered more comprehensively. Because most of the causes are interactive, it needs more precise experimental studies to distinguish and identify. Data on the different impacts of ASPD should also be updated as the times change. These results can help prevent ASPD and give some better solutions to its bad influences. Future researchers should find ways to further support hypotheses nowadays with experiments and observations, adding to the missing parts of antisocial personality disorder.

#### 4. CONCLUSION

In conclusion, physiological, family, and social factors can contribute to ASPD, but we still need more research to identify the key factors. In addition, ASPD has a very dangerous impact on both patients and society. To avoid adverse consequences, appropriate prognosis and treatment (such as cognitive behavioral therapy) should be given according to patients' specific situation.

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