

ANTISOCIAL PERSONALITY DISORDER:
THE CONTROVERSY THAT EXISTS ABOUT THE ONSET,
CAUSES OF AND THE TREATMENT OPTIONS FOR THE DISORDER

By: Nidhi Soni
Research Department
Advisor: Dr. Tepe
January 28, 2003

ANTISOCIAL PERSONALITY DISORDER: THE CONTROVERSY THAT EXISTS ABOUT THE ONSET, CAUSES OF AND THE TREATMENT OPTIONS FOR THE DISORDER

ABSTRACT

Objective: To define Antisocial Personality Disorder and review the literature on the possible causes of and treatment therapies available for the disorder, including medication, psychotherapy and addressing the nutritional status of the patient.

Clinical Features: The genetic, physiological, biochemical and environmental causes for Antisocial Personality Disorder will be researched along with the psychological, medical, and nutritional therapies for managing it.

Conclusion: Although the onset, causes and the treatment for Antisocial Personality Disorder are argued among clinicians, it has been shown that nutritional supplementation plays a positive role in the management of patients with this disorder. Nutritional supplementation was used on juvenile delinquents in prisons and other institutional settings and consisted of dietary changes which increased nutrient density by replacing high fat and sugar foods with fruits, vegetables, and whole grains. A balanced healthy diet, rich in essential vitamins and minerals corrected low blood concentrations of vitamins essential for proper brain function which reduced violence due to malnutrition.

Keywords: Antisocial Personality Disorder, ASPD, nutrition, juvenile delinquency, medication

INTRODUCTION

Antisocial Personality Disorder (ASPD) is a lifelong disorder that affects an estimated seven million people in the United States—eight times as many men than women. Individuals with Antisocial Personality Disorder are considered to be extremely aggressive, impulsive and lack the ability to feel empathy for others. Even today, researchers have not yet reached a consensus on the factors that cause Antisocial Personality Disorder. Some clinicians argue that ASPD is a genetic disorder, while others contend environmental factors or nutritional deficiencies are to blame. Just as the specific causes of ASPD remain unknown, the treatments for ASPD have also been relatively unsuccessful. Treatments that are often applied include talking therapies and various medications. New studies suggest addressing

the nutritional status of an individual can also be effective; realistically, however, research indicates that the more severe symptoms of ASPD tend to diminish as the individual becomes older.

“In general, personality refers to a stable configuration of patterns and modes of relating to oneself and others. From the many behaviors that typify any individual, clusters of related traits can be grouped together and used to define that individual’s position along a behavioral dimension” (15). From the moment a child is born, his or her personality begins to take shape. During infancy, childhood, and adolescence, the individual explores a variety of behaviors that eventually become characteristic of his or her personality. Some behaviors are rejected, while others—those that prove to be successful and satisfying—are repeated; these behaviors, in turn, become “part of a strong and predictable pattern that determines how that person perceives the world and his or her place in it” (6). On the other hand, ingrained patterns of behavior that are inflexible and maladaptive characterize disorders of the personality. Such patterns of maladaptive behavior usually violate society’s norms and expectations and may result in emotions ranging from depression and anxiety to those that spark suicide (7).

DISCUSSION

Antisocial Personality Disorder

Antisocial Personality Disorder (ASPD)—also referred to as sociopathy and psychopathy—is defined in the latest Diagnostic and Statistical Manual as a lifelong “pervasive pattern of rule breaking and violating of the rights of others” (7).

According to a recent study of psychiatric disorders, an estimated seven million people in the United States suffer from ASPD; among this number, eight times as many men than women suffer from the disorder. Historically, sociopathy was first recognized as a social issue during the mid-1800's (it was termed "moral insanity"), and diagnostic criteria for Antisocial Personality Disorder have been listed in the DSM ever since 1968. Surprisingly, however, no distinct cause or treatment for ASPD has been found, and even today, little research has been conducted in order to examine the basis of this disorder (7).

The DSM-IV characterizes the criteria for Antisocial Personality Disorder as such: egocentrism, manipulateness, unstable interpersonal relationships, failure to learn from experience, disregard for the consequences of actions, and disregard for the feelings of others. More specific criteria for a diagnosis of Antisocial Personality Disorder include unemployment for six months or more, traveling from place to place without a prearranged job, and, if the individual is a parent, malnutrition and minimal hygiene of the child. According to clinicians, the most essential traits required for a diagnosis of Antisocial Personality Disorder include an onset no later than the early twenties, impulsivity, pathological egocentricity, little or no response to kindness, callous unconcern for others, lack of responsibility, and inability to experience guilt (7).

Individuals with Antisocial Personality Disorder are considered to be extremely aggressive, impulsive, competitive, and argumentative. The most striking characteristic of individuals with Antisocial Personality Disorder, however, is their inability to feel empathy for others or guilt for their actions. These individuals are

able to see the world only from their point of view, and they lack the ability to see it as others would; in fact, these individuals see themselves as victims of a cruel and harsh environment. Furthermore, individuals with antisocial personalities have an innate need to control their environment and the people in it, and they are usually impulsive risk-takers and thrill-seekers. From an early age, an individual with Antisocial Personality Disorder learns to be hard-hearted, emotionally self-reliant, and to trust no one. Personal and intimate relationships for individuals with ASPD are usually unsuccessful simply because these individuals are manipulative, with little regard for the feelings of others. They can only think of, or care about, themselves and they show little concern for the consequences of their behavior on the emotions of other people (6).

In some cases, individuals with antisocial personalities tend to have a well-developed sense of geniality; in fact, others may regard an individual with Antisocial Personality Disorder as charming, accessible, and friendly. In this case, an individual with Antisocial Personality Disorder seems agreeable with others and makes positive impressions on other people. These individuals are usually alert and friendly; they are easy to talk to and seem to have a variety of interests and abilities. All in all, these individuals seem to be well-adjusted, happy people. Psychometric tests frequently show these individuals to be of above average or even superior intelligence. Everything about these particular individuals is likely to suggest desirable and superior human qualities, particularly those of sound mental health. Another characteristic of many individuals with Antisocial Personality Disorder is that they are ordinarily free from signs or symptoms traditionally regarded as

psychotic. These individuals do not hear voices, they do not have delusions, nor are they depressed. These individuals recognize social values, they and set personal goals and standards for themselves. These charming individuals are also capable of foreseeing the consequences of illegal or antisocial actions, and they are able to calculate the steps of their actions. Underneath the mask of geniality and well-adjustment, however, lies a calculating manipulator who shows no remorse for the welfare of others, and who does not trust anyone (5).

Onset

The onset of Antisocial Personality Disorder is another issue that is debated by clinicians within the psychological field. The DSM-IV, for instance, indicates that Antisocial Personality Disorder can be diagnosed before the individual turns fifteen. Other theorists, however, contend that the onset of Antisocial Personality Disorder occurs during early adulthood. According to the majority of Antisocial Personality cases that have been studied today, symptoms of ASPD are believed to be manifested during childhood and adolescence. Symptoms of Antisocial Personality Disorder that arise during childhood and adolescence may include lying, cheating, stealing, vandalizing, fighting, physical cruelty, truancy from school, boredom with repetitive tasks, drug and alcohol use, and early interest in sexual activity. During adulthood, these symptoms of impulsivity and recklessness may further develop into drug and alcohol abuse, promiscuity, child and spousal abuse, the inability to meet financial obligations, and criminal behaviors ranging from petty theft to murder (6).

Clinicians suggest that Conduct Disorders (CD) that arise during childhood may be linked to Antisocial Personality Disorder during adulthood. Conduct Disorder is defined in the DSM-IV as a “pattern behavior in which the individual persistently violates the basic rights of others or violates social norms and rules” (7). Misbehavior among children with CD may occur in four main areas: aggression toward people or animals, destruction of property, deceitfulness or theft, and serious violations of rules. Such behavioral problems may create significant impairments in the child or adolescent’s social, academic, or personal functioning. In many ways, the symptoms of Conduct Disorder resemble the symptoms of adult Antisocial Personality Disorder and individuals who have been diagnosed with Conduct Disorders are likely to commit adult criminal acts (2). Such well-developed antisocial behavior patterns and high levels of aggression that are apparent during late childhood or early adolescence are among the best predictors of delinquent and violent behavior during adulthood. Similar to Antisocial Personality Disorder in adulthood, Conduct Disorders that arise during childhood affect approximately two to seven percent of the general population, they are much more frequent among males than females, and they are related to low levels of education and attainment. High frequency and severe patterns of aggressive behavior apparent in individuals with CD may include victimization of others, drug and alcohol use, violence, school failure and dropout, and delinquency. As children with CD develop into young adults, their behavior patterns become more destructive, they become more aversive, and their criminal behavior may have a greater social impact (16).

Possible Causes

How does one develop Antisocial Personality Disorder? Even today, theorists have not yet reached a consensus on the factors that cause Antisocial Personality Disorder. In fact, the debate between nature and nurture—heredity vs. environment—usually arises in attempting to explain the roots of this (3).

Twin studies and adoption studies indicate that antisocial behavior may have a hereditary basis. To begin, studies have shown that identical twins have a dramatically higher chance of sharing Antisocial Personality Disorder than do fraternal twins. In one twin study of adult felons (1996), for example, fifty out of ninety-eight identical twin pairs were convicted of the same felonies compared to fifty-two out of one-hundred seventy-two fraternal twin pairs. Modern adoption studies also report a significant relationship of antisocial behavior between adopted children and their biological parents than between adopted children and their adoptive parents. Furthermore, studies have shown that having a sociopathic or alcoholic father is a powerful indicator that a male offspring will develop Antisocial Personality Disorder or another Conduct Disorder, even if the child is not raised in the same household as the father. For instance, family studies (1996) indicate that a child with at least one antisocial parent has about a sixteen percent chance of developing the disorder (3). Other family studies (1999) of Antisocial Personality Disorder generally show that one out of five of individuals with the disorder have first-degree relatives with the disorder. Generally, male offspring of individuals with Antisocial Personality Disorder suffer from Antisocial Personality Disorder, alcoholism or drug dependency, Attention Deficit Hyperactivity Disorder (ADHD) and learning

disabilities. On the other hand, female offspring of individuals with ASPD are more likely to suffer from depression or somatization disorder—a condition characterized by multiple unexplainable medical complaints (2).

From an evolutionary perspective, theorists contend that human beings are organically integrated systems that have evolved throughout time. According to the evolutionary theory, the pattern of self-orientation characteristic of individuals with Antisocial Personality Disorder develops as a form of protection and counteraction from their own predation, or death. In this case, these individuals turn to themselves in order to survive the harsh cruel world and to provide themselves with self-generated rewards. These individuals learn that they cannot depend on others, and so, trust only themselves and seek retribution for what they see as past injustices. By being self-oriented, these individuals actively gain strength, power, and revenge, and exploit other's possessions. Antisocial personalities are independent in their style of interpersonal functioning (4).

In a study of the brain tissues of patients with Antisocial Personality Disorder (2000), researchers found that, compared to individuals who did not have ASPD, individuals with the disorder showed a reduced amount of gray matter within the prefrontal cortex of the brain—the area of the brain responsible for regulating behavior and social judgment. In fact, Magnetic Resonance Imaging (MRI) techniques revealed reduced amounts of gray matter in the brains of twenty-one out of thirty-four men who suffered from Antisocial Personality Disorder. Regardless of these findings, the issue of whether prefrontal deficits are a cause or a result of Antisocial Personality Disorder is one that requires further examination (1).

Various studies also indicate that Antisocial Personality Disorder is the result of trauma to the brain during childhood or during adulthood. In 1997, researchers estimated that 12% of individuals with ASPD in the United States suffered from head trauma at some point in their lives. According to physicians, the most common sites of head injuries are the anterior temporal and prefrontal lobes—areas of the brain particularly concerned with social behavior. A patient with trauma to either of these lobes may become shameless, may become careless or irresponsible in domestic and financial situations, and may lose affection for family members. The patient may also experience memory loss, slow thinking patterns, and the loss of abstract thought (12).

Researchers also contend that epilepsy of the temporal lobe of the brain is also linked to antisocial behaviors and Antisocial Personality Disorder. A common symptom of temporal lobe epilepsy is explosive rage in response to little provocation and antisocial behaviors that come along with explosive rage may include aggressiveness, destructiveness, cruelty to others, egocentrism, lying, and disregard for the welfare of others. Temporal lobe epilepsy assumes subtle forms and many individuals who suffer from the disorder have behavioral problems for many years without diagnosis or treatment (12).

Various neurobiological theories also suggest that the brain chemistry of individuals with Antisocial Personality Disorder, particularly those of psychopathic killers, may differ from that of other individuals. The brains of individuals with ASPD may produce low levels of serotonin, the neurotransmitter responsible for regulating sleep and emotional behavior. Thus, low levels of serotonin may trigger the impulsive violence and aggression that are characteristic of individuals with Antisocial

Personality Disorder. For instance, recent studies (2001) indicated that prisoners diagnosed with Antisocial Personality Disorder had lower levels of serotonin byproducts in their spinal fluid than did prisoners who did not suffer from ASPD. In addition, studies have shown that when tryptophan hydroxylase—an enzyme that directs serotonin production—is depleted from the brain, even normal men become more aggressive(9). Other studies (1999) also indicate that when men are injected with drugs that increase serotonin production, they are more prone to violent and aggressive outbursts (2).

The EEG patterns of individuals with Antisocial Personality Disorder are usually abnormal compared to individuals who do not suffer from the disorder; in fact, these individuals display patterns of slow-wave brain activity commonly found in children and adolescents. Antisocial children and adults also show a low resting heart rate—the pace at which the heart beats in the relaxing state—which may indicate that the biological systems of individuals with ASPD are underaroused (2). Similarly, numerous studies have found that the autonomic nervous systems of individuals with Antisocial Personality Disorder generate weak responses to sensory stimulation from the environment. In this case, individuals with Antisocial Personality Disorder are relatively numb to sensory stimulation, which may explain the risk-taking and thrill-seeking behaviors common to the disorder. Because their autonomic nervous systems generate weak responses to stimulation, internal feelings of pain, anxiety, or guilt are also inhibited in individuals with antisocial personalities (6). Individuals with Antisocial Personality Disorder have low skin conductance in situations that would elicit anxiety and increased skin conductance in normal individuals (17).

Recently, theorists have suggested that the physical environment itself may play an important role in the development of antisocial behavior and Antisocial Personality Disorder. Rapid growth and development in urban areas, the overuse of automobiles, and the increased use of chemical agents are issues that have prompted concerns about the effects of environmental contaminants on the health of humans, particularly the health of young children. Contaminants found in air, drinking water, and food may be linked to lowered cognition, lower academic success, and decreased memory found among children living in low-income communities; these communities are also areas where lead toxicity has become an intensified problem during the past few years. Epidemiological studies (2001) have indicated that exposure to various neurotoxins, particularly lead, may have adverse effects on human cognition and behavior. Researchers contend that because children are often at a higher risk of suffering the adverse effects of environmental contaminants, the symptoms of Antisocial Personality Disorder may manifest themselves at an early age. In this case, chronic exposure to contaminants in childhood interferes with the normal development of the central nervous system of children. For instance, chronic exposure to lead during childhood has been associated with decreases in cognitive function, intelligence, and motor skill development in children from urbanized areas. In addition, exposure to heavy metals, such as mercury, during the prenatal stages, infancy, and early childhood has been associated with decreased memory and decreased scholastic performance. Polychlorinated biphenyls (PCB's), found in contaminated food and water, are also thought to disrupt the development of the central nervous system. Among young children, exposure to PCB's have been

reported to cause serious deficits in the psychomotor development, short-term memory, and behavior of young children (11).

How do environmental contaminants relate to antisocial behavior and Antisocial Personality Disorder? Research indicates that individuals with lower cognitive abilities and learning disabilities possess certain personality characteristics that make them more likely to engage in antisocial behaviors, such as lack of impulse control, inability to predict consequences of actions, and suggestibility. Individuals with cognitive deficits and learning disabilities have also been reported to show a reduced ability to control impulses such as aggression towards others, increased impulses to destruct objects or property, and increased difficulty in following instructions. As mentioned, problems such as lead and mercury toxicity are common in urbanized areas—communities where antisocial behavior is more frequently reported. In addition, lead and mercury toxicity have been more frequently reported among males and minorities; similarly antisocial behavior has been reported more frequently among males and among minorities. Indeed, environmental contaminants are not the sole cause of Antisocial Personality Disorder; however, results from various studies indicate that environmental factors may play a significant role in antisocial behavior (11).

One study (1996) indicates that nutritional deficiencies or low blood vitamin concentrations are linked to the development of Antisocial Personality Disorder. In this study, a randomized controlled double-blind trial was implemented in which 26 confined delinquents with antisocial behavior, aged 13 to 17 years, were studied for three months. Ten subjects who maintained their normal or low blood concentrations

of vitamins throughout the trial period did not show a significant reduction in the number of violent acts, whereas the 16 who did correct their low blood vitamin concentration during intervention, produced 131 violent acts before the trial period and only 11 during intervention. This study proved that vitamin-mineral supplementation as well as lowering fat and sucrose levels reduce crime in institutional settings (14).

Further studies (2000) observed the effect of vitamin-mineral supplementation on juvenile delinquency among American school children. This study verified that poor nutritional habits in children lead to decreased concentrations of vitamins which in turn impair brain function and lead to violence and other forms of antisocial behavior. Correcting nutrient intake, whether through a well-balanced diet or supplementation of essential vitamins and minerals improves brain function and reduce the amount of violence and antisocial behavior by almost half (13).

Research also suggests that severe maternal nutritional deficiency early in gestation is associated with an increased risk for Antisocial Personality Disorder in offspring (10).

Treatment Options

Treatment of Antisocial Personality Disorder in adults can be a frustrating and frequently unsuccessful undertaking. Even today, no reliable treatments for Antisocial Personality Disorder have yet been discovered. Because ASPD cannot be directly treated, clinicians are encouraged to identify and treat coexisting problems

that are able to be treated—depression, alcoholism or drug addiction, nutritional deficiencies, etc. (2).

In treating Antisocial Personality Disorder, many therapists rely on Freudian psychotherapy—a form of therapy that aims to uncover the unconscious mental processes that motivate psychopathic behavior or dialectical behavior therapy (DBT)—a form of therapy that focuses on emotion regulation, tolerance of emotional distress, interpersonal effectiveness, and self management (8).

In some cases, medication may be required in order to correct the abnormalities in brain chemistry noted in Antisocial Personality Disorder. During the past fifty years, there has been a revolution in drug therapy for the treatment of mental disorders, but as of yet, there is no consistently successful drug for treating Antisocial Personality Disorder. Regardless, numerous drugs are effective in treating or deterring aggression. Medication may also help alleviate some of the disorders that coexist with ASPD—like ADD or depression—and, in turn, reduce antisocial behavior. A new generation of antidepressant medications called selective serotonin reuptake inhibitors (SSRI's) are prescribed by clinicians in order to reduce some of the behavioral effects of ASPD. These drugs boost levels of serotonin in the central nervous system and are believed to “make up” for the serotonin deficit associated with aggressive behavior. However, no research exists to document the effects of SSRI's on Antisocial Personality Disorder. Studies (1999) also show that administering lithium carbonate among prison inmates is effective in reducing anger, threatening behavior, and assaults among these prisoners. Lithium carbonate has also been shown to reduce behaviors like bullying, fighting, and temper outbursts in aggressive children. Another drug, Phenytoin (Dilantin), is an

anticonvulsant that has been shown to reduce impulsive aggression in prison settings. Other drugs that have been effective in treating aggression, particularly in patients with brain injuries, include carbamazepine (Tegretol) and sodium valproate (Depakote) (2). Although many drugs have been effective in deterring aggression and violent behaviors, many of them carry negative and potentially irreversible side effects. In prescribing medications for patients with ASPD, clinicians must carefully consider the possible factors involved in each type of medication. This includes identifying target symptoms that may benefit from medication, assessing the physical health of the patient, and identifying other medications the patient may already be taking. In prescribing medication, clinicians are also encouraged to consider the potential risks and benefits of a specific medication and avoid the use of medications that can easily become addictive (8).

CONCLUSION

Treating Antisocial Personality Disorder is usually a long, arduous, and frustrating task for clinicians. Most individuals with ASPD are so mistrustful of others—particularly authority figures—that they seldom cooperate in therapy settings. Moreover, they rarely believe that they are to blame for their actions. Certain medications, such as Depakote, SSRI's and Tegretol may curb individual symptoms of ASPD—such as aggression and impulsiveness—however, no drug has been shown to specifically treat the disorder (2). A recent approach, being used mostly in prisons and other institutional settings, appears to consist of dietary changes which increase nutrient density by replacing high fat and sugar foods with fruits,

vegetables, and whole grains in proportions recommended by the National Academy of Sciences' Food and Nutrition Board. A balanced healthy diet, rich in essential vitamins and minerals has proven to correct low blood concentrations of vitamins essential for proper brain function which reduce violence due to malnutrition by almost half (13).

Realistically, however, time appears to help alleviate the more severe symptoms of Antisocial Personality Disorder; in fact, in one study (1991), antisocial symptoms tended to reach their peak in the twenties and improve by the time individual turned thirty-five years old. These statistics are consistent with crime statistics, which also indicate that the rate of arrests decrease as offenders grow older. Possibly, individuals with Antisocial Personality Disorder experience a burnout; that is, perhaps their antisocial behavior decreases to a point where it is no longer a problem. However, Antisocial Personality Disorder is considered to be a lifelong disorder and many individuals who improve in their symptoms are unable to regain opportunities in education, employment, and domestic life. For this reason, many individuals with ASPD continue to behave in antisocial ways. In most cases, however, as the individual reaches his or her thirties or forties, symptoms of Antisocial Personality Disorder tend to diminish (6).

REFERENCES:

1. Alloy LB, Jacobson NS, Acocella J (1999). Abnormal Psychology. Boston: McGraw-Hill Company.
2. Black DW (1999). Bad Boys, Bad Men: Confronting Antisocial Personality Disorder. New York: Oxford University Press.
3. Carey G, Gottesman II (1996). Genetics and Antisocial Behavior: Substance Versus Sound Bytes. Politics and the Life Sciences, 15, 88-90.
4. Clarkin JT, Lenzenweger R (1996). Theories of Personality Disorders. New York: Guilford Press.
5. Cleckley H (1955). The Mask of Sanity. St. Louis: The C.V. Mosby Company.
6. Friedland FR (1991). Personality Disorders. New York: Oxford University Press.
7. Livesley J (1995). The DSM-IV: Personality Disorders. New York: Guilford Press.
8. Modesto-Lowe V, Kranzler HR (1999). Diagnosis and Treatment of Alcohol Dependant Patient with Comorbid Psychiatric Disorders. Alcohol Research & Health, 23, 144-9.
9. Moeller FG, Dougherty DM (2001). Antisocial Personality Disorder, Alcohol, and Aggression. Alcohol Research and Health, 25, 5-11.
10. Neugebauer R, Hoek HW, Susser E (1999). Prenatal Exposure to Wartime Famine and Development of Antisocial Personality Disorder in Early Adulthood. Journal of the American Medical Association, 282, 455-63.
11. Preston BL, Warren RC, Wooten SM (2001). Environmental Health and Antisocial Behavior: Implications for Public Policy. Journal of Environmental Health, 63, 9-19.
12. Reid WH (1978). The Psychopath: A Comprehensive Study of Antisocial Disorders and Behaviors. New York: Brunner/Mazel Publishers.
13. Schoenthaler S, Bier I (2000). The Effect of Vitamin-Mineral Supplementation on Juvenile Delinquency Among American Schoolchildren: A Randomized, Double-Blind Placebo-Controlled Trial. Journal of Alternative & Complementary Medicine, 6,7-11.
14. Schoenthaler S, Amos S (1997). The Effect of Randomized Vitamin-Mineral Supplementation on Violent and Non-Violent Antisocial Behavior Among Incarcerated Juveniles. Journal of Nutritional & Environmental Medicine, 7,343-56.

15. Shader RI (1994). Manual of Psychiatric Therapeutics. Boston: Brown and Company.
16. Sprague JR, Walker HM (2000). Early Identification and Intervention for Youth With Antisocial and Violent Behavior. Exceptional Children, 66, 367-79.
17. Stevens D, Charman T, Blair RJ (2001). Recognition of Emotion in Facial Expressions and Vocal Tones in Children with Psychopathic Tendencies. The Journal of Genetic Psychology, 162, 201-11.

