

# Co-occurring Antisocial Personality Disorder and Substance Use Disorder: Treatment Interventions

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Abstract: Substance abuse is highly prevalent among individuals with a personality disorder (Verheul, van den Bosch, & Ball, 2005). About 40% to 50% of individuals with a substance use disorder meet the criteria for antisocial personality disorder (ASPD) and approximately 90% of individuals diagnosed with ASPD also have a co-occurring substance use disorder (Messina, Wish, & Nemes, 1999). Psychotherapy is the treatment of choice for personality disorders; however, various personality disorders are not equally represented in the research, so it is unknown how applicable the research findings on the treatment strategies for personality disorders are to ASPD (Leichsenring & Leibing, 2003). The current essay will give a brief overview of ASPD and substance use disorder and review the latest treatment recommendations.

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Research on personality disorders began relatively recently in the 1980's (Verheul, van den Bosch, & Ball, 2005). The high comorbidity of individuals with a personality disorder and their difficult clinical management has been a foundation for the research (Verheul et al., 2005). Substance abuse is highly prevalent among individuals with a personality disorder (Verheul et al., 2005). The two most common personality disorders associated with substance use disorders are Antisocial Personality Disorder (ASPD) and Borderline Personality Disorder. About 40% to 50% of individuals with a substance use disorder meet the criteria for ASPD and approximately 90% of individuals diagnosed with ASPD also have a co-occurring substance use disorder (Messina, Wish, & Nemes, 1999). There continues to be a widely held belief that personality disorders in general and ASPD in particular, are untreatable (Verheul & Herbrink, 2007). There is also a reluctance to work with this population because of their difficult clinical management. Furthermore, individuals with ASPD are often excluded from substance abuse treatment programs due to the symptoms of their personality disorder. Likewise individuals with a substance use disorder are often excluded from personality pathology treatment because they are often disruptive and uncooperative (Messina et al., 1999). Individuals are often told to leave treatment until they have stopped using or have a certain amount of time abstinent from using. More research is needed to determine appropriate treatment strategies for individuals with co-occurring ASPD and substance use disorder. The current essay will give a brief overview of ASPD and substance use disorder and review the latest treatment recommendations.



## ANTISOCIAL PERSONALITY DISORDER AND SUBSTANCE USE

The main characteristic of ASPD is a pervasive disregard for the rights of others. This disorder begins in adolescence and continues into adulthood; the individual must be at least 18 years old to qualify for an ASPD diagnosis. ASPD is characterized with deceitful and manipulative behavior. People with ASPD demonstrate impulsive and aggressive behavior, they have a low tolerance for boredom, and they behave irresponsibly. Individuals with ASPD externalize their difficulties; they attribute blame on others and do not want to face the consequences of their actions, they lack empathy. These individuals are typically unable to sustain long-term employment or a monogamous relationship. People with ASPD embrace a deviant lifestyle and often commit criminal acts, which can be demonstrated by their overrepresentation in the criminal justice system (American Psychiatric Association, 2000).

Substance abuse is highly prevalent in people with Axis II disorders. Axis II diagnoses range from 44% among those who abuse alcohol to 79% among those who abuse opiates, with the most prevalent Axis II diagnosis being ASPD (Verheul, et al., 2005). Twin studies have indicated that there may be a genetic factor linking antisocial behavior and substance use disorders (Krueger, Hicks, Patrick, Carlson, Iacono, & McGue, 2002). Therefore the development of antisocial behavior and substance dependence might be traced back to a common genetic factor. A similar study by Krueger and colleagues (2002) also examined a possible genetic factor in the development of these disorders. They surveyed 524 pairs of twins in their late teens. Data analysis indicated that substance dependence and antisocial behaviors commonly co-occur and could be traced back to an externalizing factor, which was said to be highly heritable; however, it did not account for all of the patterns of co-occurrence. Overlapping diagnostic criteria may also be a reason for the high co-occurrence of ASPD and substance use disorders (Verheul, et al., 2005).

### **Co-occurring Relationship**

Further evidence for the relationship between ASPD and substance use disorder is provided by Flory, Lynam, Milich, Leukefeld, and Clayton (2002), who examined the relationship among personality, symptoms of substance abuse, and symptoms of comorbid psychopathology. Data were analyzed from 481 individuals, who were all 21 years old. Seven percent of the sample met adult criteria for ASPD. Thirty percent of the sample met criteria for alcohol abuse, and 24% met criteria for marijuana abuse.

Sixteen percent of the sample qualified for alcohol dependence, and 12% qualified for a diagnosis of marijuana dependence. Data revealed a significant positive correlation among symptoms of alcohol abuse/dependence and symptoms of marijuana abuse/dependence as well as Antisocial Personality Disorder symptoms. Personality remained significantly correlated to substance abuse even after controlling for antisocial symptoms. This may indicate that it is general personality characteristics, rather than antisocial personality characteristics that explain the correlation. This finding may have important implications for theories which posit that it is the antisocial behavior, not personality, which leads to substance use. Furthermore it is also possible that persons with ASPD and those who use substances share common personality characteristics.

Trull, Waudby, and Sher (2004) also assessed substance use disorder symptoms and personality disorder symptoms. They found that personality symptoms from Cluster B personality disorders (including antisocial, borderline, histrionic, and narcissistic) were significantly related to alcohol abuse and dependence as well as drug abuse and dependence. This relationship remained after controlling for personality scores. The highest rates of past year alcohol dependence were found in those with Cluster B disorders. Antisocial symptoms alone were also significantly related to substance use diagnoses. Trull and colleagues (2004) concluded that Cluster B personality symptoms were significant predictors of both alcohol and drug use diagnoses. Additionally, antisocial and borderline symptoms were found to be the strongest independent predictors of alcohol diagnoses. Findings from this study suggest that personality symptoms precede substance use disorders.

### **Treatment Interventions**

The relationship between ASPD and substance use is highly debated. Whether or not a causal relationship exists and the order of onset of the two disorders could have important treatment implications. Despite the severity of personality disorders, programs designed to treat them are rare (McMain & Pos, 2007). Health professionals often lack adequate training in the treatment of these disorders and there is a reluctance to work with this population due to the associated clinical challenges (McMain & Pos, 2007). There is also a continued belief that people with personality disorders do not improve with treatment, due in part to a lack of evidence based treatment data on effective treatment for personality disorders (Verheul et al., 2005). Recent data suggest that psychotherapy is a key



element of effective treatment of personality disorders, including ASPD (McMain & Pos, 2007).

Psychotherapy is the treatment of choice for personality disorders (Leichsenring & Leibing, 2003). One of the few studies addressing ASPD and substance use was conducted by Messina, Farabee, and Rawson (2003). The researchers tested the treatment responsiveness of cocaine dependent individuals with ASPD. Four treatment interventions were assessed. Cognitive behavioral treatment (CBT) consisted of 48 - 90 minute group sessions, 3 per week for 16 weeks. This group also was given a workbook that explained or illustrated an aspect of CBT. In the contingency management (CM) condition, participants were required to provide three urine samples per week and meet briefly with a technician. If the urine did not test positive for stimulants, the participant earned a voucher that increased in value with each negative urine sample. The third intervention combined CBT and CM techniques. All conditions received identical methadone maintenance treatment; however, the fourth intervention did not include any additional treatment intervention. Participants with ASPD demonstrated optimal performance in the CM condition, with ASPD participants performing significantly better than non-ASPD participants. Overall, participants with ASPD performed better than participants without ASPD in all conditions except for the methadone maintenance only condition. ASPD was significantly and positively related to treatment outcome. ASPD participants in each treatment condition were more likely to test negative for cocaine at the 17 week, 26 week, and 52 week follow up. Most importantly ASPD participants in the CM condition were twice as likely as non-ASPD participants in the CM condition to test negative for cocaine at all follow up periods. The results of this study demonstrate that individuals with co-occurring ASPD and substance use disorder can be responsive to treatment. More research is needed to determine if other interventions could be effective; however, it appears that contingency management is an effective intervention strategy. Although the results appear promising, this study did not assess improvement in personality pathology.

Research on the treatment of personality disorders alone has focused mainly on psychodynamic and cognitive behavioral therapies. Unfortunately various personality disorders are not equally represented in the research. The most prevalent disorders found in the research are borderline, dependent, and avoidant personality disorders; and the least prevalent disorders found in the research are antisocial, schizoid, narcissistic, and histrionic (Verheul & Herbrink, 2007). For that reason it is unknown how applicable the research findings on the treatment strategies for personality disorders are to ASPD. Leichsenring & Leibing

(2003) found that both psychodynamic and cognitive behavioral individual therapies are effective treatments for personality disorders. The effects of the psychodynamic and cognitive behavioral treatments involve a reduction of the symptoms of personality pathology as well as improvement in social and occupational functioning (Verheul & Herbrink, 2007). Overall the efficacy of psychodynamic and cognitive behavioral therapies seems to be equal; however, it is important to note that psychodynamic therapy on average has a longer duration than cognitive behavioral therapy (Leichsenring & Leibing, 2003). Additionally the supportive aspect of psychodynamic therapy may lead to a higher retention in treatment (Verheul & Herbrink, 2007). Psychodynamic therapy is also found to be more effective than other techniques for individuals who lack a tolerance for frustration and anxiety, have low impulse control, and are less capable of mentallization (i.e. ASPD) (Verheul & Herbrink, 2007).

Studies have also shown that group psychotherapy can be an effective supplemental treatment for personality disorders, with the average length of participation being two years or more (Verheul & Herbrink, 2007). Individuals with severe Cluster B personality disorders have not been shown to benefit from short term inpatient therapy; however, long term (psychodynamically oriented) inpatient psychotherapy may be effective in reducing personality pathology and improving social functioning (Verheul & Herbrink, 2007). Chiesa, Fonagy, and Holmes (2006) found that a combination of medium term inpatient treatment followed by a long term outpatient program yielded the most symptomatic improvement and the most long term improvement. This combination of therapies resulted in a continuation of symptom improvement or a long term maintenance of reduced symptoms over a four year period. Motivational techniques may also be beneficial to individuals who have a pattern of externalizing behavior (including ASPD) as it may help them become aware of the relationship between their personality and their impairment in functioning (Verheul & Herbrink, 2007).

Current research gives some direction for therapy, with CM, CBT, psychodynamic therapy, and motivational interviewing techniques yielding some improvement in personality pathology and the reduction of substance use. Research has shown that individuals with ASPD may even be more responsive than others to substance abuse treatment. Additionally, longer term psychodynamic therapy may improve personality pathology. Findings of effective treatment for co-occurring ASPD and substance use disorders are encouraging for future research, which should include populations with ASPD adequately represented.



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