



2009

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### Recommended Citation

Merritt, Todd A., "Drug Use and Abuse by People with Autism" (2009). *Honors Theses*. 1188.  
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Drug Use and Abuse by People with Autism

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Abstract

A developmental disability that is as prevalent as Autism Spectrum Disorders (ASD) is in society should have an extensive background of research, and this appears to be lacking, specifically concerning the issue of substance use and abuse. This article is a review of the current literature on drug use and abuse by people with Autism. Although some relevant studies have been conducted, no review of this literature has been done. Topics of interest include the prevalence of use and abuse of licit and illicit substances (e.g., ethanol, cigarettes, marijuana, and cocaine), common drug-related problems, and targeted prevention and treatment strategies.

## **Drug Abuse**

Inappropriate self-administration of recreational drugs and medications – that is, drug abuse – is a huge problem for society at large. As defined by the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (fourth edition, text revision), drug abuse is a maladaptive pattern of substance use leading to clinically significant impairment or distress as manifested in a 12-month period by at least one of the following: (1) recurrent drug use resulting in failure to fulfill major role obligations at work, school, or home; (2) recurrent drug use in hazardous situations; (3) recurrent drug-related legal problems; and/or (4) continued drug use despite having recurrent social or interpersonal problems related to drug use. Abusing drugs has been a societal problem for generations; the majority of the research done on substance abuse has been for typically developing individuals regarding the effects on the body, and the best treatment for various addictions.

Although the topic has garnered relatively little attention, it is clear drug abuse is a problem for at least some people with developmental disabilities, for example, those with cognitive impairments (e.g., Delaney & Poling, 1990; Christian & Poling, 1997). One particular study found 74% of youth with substance use disorder had a co-occurring disorder (Turner, Muck, Muck, Stephens, & Sukumar, 2004). A co-occurring disorder is when an individual has two or more disorders at the same time, for example, Autism and Substance Use Disorder. The combination of disorders introduces a whole new level of complexity, especially when considering potential treatments.

## **Autism**

Autism is a condition with three core characteristics: impaired communication, impaired social interaction, and restricted and repetitive behavior (American Psychiatric Association, 2000; World Health Organization, 2006). Impairments in social interaction can include a lack of social or emotional reciprocity, lack of joint attention, failure to develop age-appropriate peer relationships, and impairments in nonverbal behavior. Individuals with Autism often have a restricted pattern of interest, are preoccupied with parts of objects, engage in stereotyped and repetitive mannerisms, and are inflexible with their daily routines. Finally, impaired communication can be seen by a delay or absence of language, stereotyped or idiosyncratic language, and lack of pretend play. While the specific symptoms may vary from person to person, there are some characteristics from each category seen within the individual.

It is generally accepted that Autism is associated with abnormalities in brain structure or function, and knowledge of these abnormalities is increasing (e.g., Bethea & Sikich, 2007). Nonetheless, the precise nature of these abnormalities - that is, in everyday terms, the "cause" or "causes" of Autism - are not presently known (Thompson, 2007). Most experts believe Autism is determined multifactorially by gene-environment interactions, meaning that its origin is biological and its manifestations may be further affected by environmental factors. It is estimated by Autism Speaks, which is a nonprofit organization dedicated to research about Autism, that 1 in 150 individuals can be appropriately diagnosed with Autism, although other estimates of prevalence are substantially lower. Croen et al. (2002), for instance, suggest that approximately 10-15 per 10,000 children are actually diagnosed with Autism. The difference in estimates may be due to the severity of symptoms required to meet the criteria for diagnosis. As more is learned about the disorder, there are often more mild versions discovered in individuals.

However, even if this lower estimate is accepted, it is clear that Autism is a relatively common disorder.

The World Health Organization (2006) classifies Autism as one of five pervasive developmental disorders (PDD). Three of the four others, Asperger's (or Asperger) syndrome, Rett syndrome, and pervasive developmental disorder not otherwise specified (PDD-NOS), share some signs with Autism and, although the terminology relevant to Autism is inconsistent and confusing, the four are frequently considered together as Autism Spectrum Disorders (ASDs). Individuals diagnosed with Autism vary widely in their behavior and the heterogeneity is even greater when people diagnosed with all four ASDs are considered. For example, language development often is not delayed in children diagnosed with Asperger's Syndrome. Nonetheless, people with ASDs are often discussed as a collective in discussions of behavioral characteristics and treatment strategies.

People with Autism commonly experience a number of challenges in addition to those directly associated with the core characteristics of the disorder (Poling, Ehrhardt, wood, & Bowerman, in press). For example, hyperactivity, mood disorders, aggression, irritability, and impulsivity are common. Much attention has been focused on developing treatments for these and other comorbidities, as well as on the core signs and symptoms of Autism, but there are other areas that still need to be addressed in further detail (e.g., Mulick & Mayville, in press).

### **Use and Abuse**

Due to the fact that most individuals with ASD's are unable to live independently, it was hypothesized that there would not be a high prevalence of substance use. The expectation is that most people affected by alcohol and other drugs will be those with free access to it – those not

affected/less affected by an intellectual learning disability and who have independence regarding their consumption choices, for example, this is more likely to be those with Asperger's Syndrome than Classic Autism (Tinsley & Hendrickx, 2008). However, many parents believe that without relevant social experiences and positive peer interactions, their children will "take the wrong path" and begin using drugs because of the consequent issues with self perception and esteem (Little & Clark, 2006). The prior two viewpoints are some of the main reasons that more research needs to be done in the area. At present it is unknown how often Autism Spectrum Disorders present with substance use disorder, some reports say that it is not uncommon, but systematic research is not available (Sizoo, van den Brink, Gorissen van Eenige, & Jan van der Gaag, 2009).

Many parents worry their child may become part of the subculture that abuses drugs because they do not have many positive social interactions with their peers, however, Santosh and Mijovic (2006) found that factors reflecting PDD are negatively associated with drug and/or alcohol use. For example, in order to obtain illegal substances, one must often be able to interact with peers to gain access to the substances. Individual's with a diagnosis of PDD often possess speech and language difficulties and have discordant peer relationships which makes it very difficult for them to seek out those opportunities (Santosh & Mijovic, 2006). With impaired communication and social interaction as part of the core characteristics of Autism, one must wonder to what extent the child would be affected by peer pressure, or other common reasons that typically developing kids first begin using or experimenting with drugs. For instance, Tantam (2000) found that the misuse of drugs requiring more "street wisdom" than alcohol and cannabis is rare for individuals with an ASD, which may be due to the related impairments.

Drugs requiring more street wisdom are often difficult to obtain and can be more complex to deliver, such as injecting the substance intravenously.

The majority of the literature shows that individuals on the Autism Spectrum are much less common to use drugs, however, those with higher functioning forms of Autism such as Asperger's Syndrome (AS) frequently consume alcohol to help alleviate the social difficulties they experience (Woodbury-Smith et al., 2006 & Sizoo, van den Brink et al., 2009). While there is some evidence for individuals with AS to use illicit substances, it is more anecdotal than quantified by systematic research (Berney, 2004). Those with AS are often reluctant to accept changes, may be anxiety prone and socially detached, and alcohol is an effective tranquilizer for those feelings (Berney, 2004 & Soderstrom et al., 2002). It is often believed that people with high social anxiety who use alcohol repeatedly to relieve their stress may come to rely upon it as their primary coping strategy, and the Mental Health Foundation has found that such people are at risk for alcoholism. Individuals with AS may be able to escape the anxiety associated with the condition by consuming alcohol, but due to the nature of the disorder, it adds a compulsive quality to social drinking (Berney, 2004). The authors of *Asperger Syndrome and Alcohol Drinking to Cope?* believe that those with AS drink for the same reasons as many other problem drinkers and alcoholics, but with a different degree of necessity as they may be trying to minimize the anxiety that accompanies their social interactions (Tinsley & Hendrickx, 2008). Murrie et al. (2002) present a case study where an individual diagnosed with AS began to use alcohol to reduce the anxiety and frustration surrounding their relationships and it soon escalated to alcohol abuse. Clearly there is some evidence found for individuals with a dual-diagnosis of Autism and Substance Use Disorder, but the scientific community is nowhere near any conclusive findings.

A recurrent topic found in the literature is the issues revolving around a primary diagnosis. Due to the only recent ‘discovery’ of the higher functioning Autistic conditions in the English language, there may well be a number of people who are currently known as ‘alcoholics’, but may also be unidentified as individuals with Autistic characteristics (Tinsley & Hendrickx, 2008). As clinicians become more knowledgeable about the topic, they are still bound by confidentiality and therefore face serious consequences when making referrals to a professional who is qualified to make a formal diagnosis of Autism. The clinician can encourage the consumer to pursue professional help, but once again, with the core characteristics of impaired communication and social interaction the individual may find the anxiety of meeting with yet another clinician to be overwhelming. However, this is a very important connection, which may lead to the individual receiving the appropriate support, diagnosis and provision (Tinsley & Hendrickx, 2008).

### **Treatment Strategies**

Working with a client who has a dual diagnosis can be much more complicated than a typical patient with only one disorder. Treatment needs to engage the client by providing them with social services, eliminating barriers to treatment, and connecting them with additional services (Miller, 2005). It is also recommended that treatment be integrated and comprehensive so the clients do not “fall between the cracks” (Miller, 2005). Because working with more than one disorder will more than likely involve the client working with multiple therapists, all parties need to be flexible with each other and promote open communication between both sides of the treatment process.

There are some findings that show Cognitive Behavior Therapy (CBT) to be effective when working with individuals with Asperger's Syndrome (Anderson & Morris, 2006 & Attwood, 2004). CBT focuses on the client's faulty thinking where the therapist encourages the client to examine his or her thinking and learn to respond to negative thoughts and assumptions (Miller, 2005). The goals of CBT are: To challenge clients to confront faulty beliefs with contradictory evidence that they gather and evaluate. Helping clients seek out their dogmatic beliefs and vigorously minimize them. To become aware of automatic thoughts and to change them (Miller, 2005). Cognitive Behavior Therapy is currently used to treat individuals with diagnoses of anxiety disorders, depression, obsessive compulsive disorder, and substance abuse, as well as many other disorders (Anderson & Morris, 2006). While CBT may be useful to treat other diagnoses, would it be useful to treat those with a co-diagnosis of Autism or Asperger's Syndrome?

Cognitive Behavior Therapists use the term "collaborative" to describe the patient's relationship with the therapist because they work together to formulate and resolve the client's problems (Anderson & Morris, 2006). Part of CBT involves the therapist using a variety of cognitive, emotive, and behavioral techniques that are tailored to suit individual clients (Miller, 2005). However, with Asperger's Syndrome being defined by serious difficulties in reciprocal social interactions and communication, there are some modifications that must be made when working with one of these individuals (Anderson & Morris, 2006).

An important part of Cognitive Behavior Therapy that may be the most troublesome for an individual with Asperger's Syndrome involves the therapist informing the client why people have emotions, how such emotions are used and misused, and to identify different levels of expression (Attwood, 2004). The therapist may go about this affective education by talking to

the client and examining their responses and facial expressions about various topics. When working with an individual with AS, the use of visual materials such as diaries and diagrams, writing in addition to verbal communication during sessions, the use of tape recording, and working together on a computer are all possibilities for “distancing” the individual from the uncomfortable personal interaction, while still obtaining information regarding situations, thoughts, and emotions to be worked on (Anderson & Morris, 2006). Also, the person with AS may have idiosyncratic ways of expressing thoughts and emotions, including specific names for symptoms and experiences and the therapist needs to discover and use these idiosyncratic terms in therapy (Anderson & Morris, 2006). In order to be most effective, the therapist needs to minimize any social interactions that may be uncomfortable for the client and hinder the therapeutic relationship.

The Cognitive Behavior Therapy process is supposed to be open and explicit, but for a person with AS, structure may be even more important (Anderson & Morris, 2006). Due to the deficits in executive functioning, the therapist should work with the client to set goals that will be achieved in each session to give the client “concrete” steps to show progress. When setting goals, it is important for the therapist to break the goals down into manageable chunks as people with AS often identify problems involving deep, existential questions (Anderson & Morris, 2006).

Cognitive Behavior Therapy is used to treat a number of disorders and has shown some efficacy for treating individuals that have a co-diagnosis of Asperger’s Syndrome as well. With any client there are modifications that need to be made to the process, but there are specific steps that can be taken to better foster the “collaborative” relationship when working with a client diagnosed with AS. There is currently no research that has been found about treating individuals

with more severe forms of the Autism Spectrum Disorder's, but because they fall on a "spectrum," perhaps similar therapy is the best available treatment at this time.

### **Discussion**

At present there is not a significant amount of research done in the area of Autism Spectrum Disorders and a co-diagnosis of Substance Use Disorder. However, there are a few studies that show those with a higher functioning form of Autism, such as Asperger's Syndrome, are likely to use alcohol as a means of coping with the anxiety associated with social interactions. There is very little research about the treatment of the dual diagnosis, but it appears that Cognitive Behavior Therapy is the best form at this time. It is important for treatment to focus on both the substance abuse and Autism so neither disorder is ignored, and is instead incorporated in the treatment process.

With Autism being a relatively "new" disorder, it is likely that many individuals have gone undiagnosed in the past. As we learn more about ASD's, we will be better suited to help those that meet the criteria for an ASD and direct them to the most appropriate resources and services. There is definitely a need for future research to be done in this area as it appears to be a relevant issue for some individuals, especially those with AS. Future research should focus on the prevalence of a dual diagnosis of Autism and Substance Use Disorder, modifications that should be made to the traditional Cognitive Behavior Therapy form of treatment, and the efficacy of other forms of treatment.

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