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Obsessive-compulsive disorder, major depressive disorder, and addiction: the vicious relationship

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Abstract

Obsessive-Compulsive Disorder (OCD) and Major Depressive Disorder (MDD) are prevalent psychiatric conditions, each affecting a substantial portion of the global population. When these conditions coexist with a Substance Use Disorder (SUD), the complexity of the clinical presentation is heightened. Herein, we describe two cases of individuals who have comorbid OCD and/or MDD and substance use disorder that highlight the importance of addressing the coexisting psychiatric illness when treating the SUD. These cases highlight the importance of tailored, multidisciplinary care, offering a potential therapeutic strategy based on medications for comprehensive recovery in individuals facing complex comorbid disorders. An integrated treatment approach, encompassing both psychiatric and substance treatment perspectives, is imperative.

Key words: comorbidity; major depressive disorder; obsessive compulsive disorder; substance use disorders.

Substance Use Disorders (SUDs) frequently co-occur with other psychiatric illnesses.[1] Substance use disorders manifest by a frequently relapsing inability to control consumption of legal or

illegal drugs, alcohol, or medications with consequent emotional, behavioral, or functional dysfunction.[2,3] In the United States in 2007, SUDs resulted in some $193 billion *in* direct and indirect costs,[4] and tragically, the rate of accidental opiate overdose deaths increased by 1,040% from 2013 to 2019 and continues to increase now, although at a more modest rate.[5] Over half of individuals with a SUD have a co-occurring psychiatric illness.[6]

Obsessive-Compulsive Disorder (OCD) is a mental illness that manifests with repeated unwanted thoughts or sensations (obsessions) and urge to do something repeatedly again (compulsions); some people have both obsessions and compulsions.[7] In earlier editions of the Diagnostic and Statistical Manual (DSM), OCD was classified as an anxiety disorder. This was changed with the 5th edition of the DSM when OCD was placed into a new category of Obsessive-Compulsive and Related Disorders.[8] Nonetheless, OCD and anxiety disorders are among the most common psychiatric co-morbidities in people with SUDs.[9] Individuals with Obsessive-Compulsive Disorder (OCD) have a 3.7-fold elevated risk of having a concomitant SUD[10] and those with a SUD comprise about 25% of those seeking treatment for OCD.[11]

OCD is also highly co-morbid with Major Depressive Disorder (MDD) with a 32% incidence of comorbidity and a lifetime prevalence of 67.5%.[11] Comorbidity of SUD with both MDD and SUD is about 25% and higher in males (36%) than females (19%).[13] The co-occurrence of SUD alongside OCD and depression represents a pivotal challenge in psychiatric care, demanding heightened attention due to its profound impact on the course, prognosis, and treatment outcomes of these complex mental health conditions.[14] The intricate interplay between OCD, MDD, and addiction is a subject of increasing significance within the fields of psychiatry and addiction medicine. The comorbidity of these conditions poses a unique clinical challenge, as each condition can fuel the course of the others, leading to treatment resistance and prolonged suffering for affected individuals.[2,15,16] The necessity of addressing this complexity is underscored by the growing recognition of the role of SUDs, such as opioid use, in exacerbating psychiatric symptoms and, on the other hand, the role of psychiatric disorders in worsening addiction and complicating treatment efforts.

When SUDs co-occur with a psychiatric illness, integrating the treatment approaches is associated with the best outcomes.[17-19] For example, in the treatment of comorbid MDD and alcohol use disorder, the use of a Serotonin-Reuptake Inhibiting (SRI) medication was associated with improved alcohol-related outcomes.20 Similarly, tricyclic antidepressants, but not SRIs,

were associated with improved mood outcomes in patients with co-occurring MDD and opiate use disorder.[21] Despite the documentation of greater comorbidity of OCD and SUD,[10] and the demonstration of the utility of SRIs in the management of OCD,[22] there is a dearth of data on the use of SRIs in dual diagnosis OCD plus SUD. In this report we present two patients with opiate use disorder and comorbid psychiatric conditions. One patient with comorbid OCD was able to discontinue methadone co-treatment after initiation of sertraline and quetiapine. A patient with comorbid MDD was able to reduce his methadone dose to 20 mg daily after initiating treatment with bupropion and aripiprazole. These cases demonstrate the importance of addressing comorbid psychiatric disorders in the treatment of opiate use disorder.

Case Reports

Case A

A 37-year-old man with a history of high-dose methadone abuse for several years was referred to the Addiction Treatment Center for management of methadone dosage. A careful psychiatric evaluation uncovered OCD in addition to opiate use disorder. There was no previous treatment for OCD. He was treated with sertraline 50 mg daily and quetiapine 25 mg at bedtime, and after 3 weeks of treatment, he was started on a methadone taper, the dose of methadone from 80mg daily to off over 22 days. During this period, he was also prescribed naproxen 250 mg twice daily to control somatic pain. Follow-up at four weeks found the patient still taking sertraline and quetiapine and free of opiate cravings.

Case B

A 35-year-old man with a history of chronic dependence on methadone, with a daily dose of 120 mg for the past two years, sought treatment for a complex clinical presentation involving comorbid OCD and Depression. Treatment was initiated with bupropion at 150 mg every morning, along with aripiprazole 5 mg every evening. Concurrently, a gradual taper of methadone dose was initiated. Over a span of six weeks, the collaborative efforts of the clinical team and the patient culminated in the successful discontinuation of methadone. At follow-up in four weeks, the patient was still taking bupropion and aripiprazole, and still off all opioid substances.

Discussion

There are increasing lines of evidence that suggest that the relationship between the cooccurring of OCD and SUD is especially complex.[23] Comorbidity of the two conditions may be particularly problematic with patients suffering reduced levels of functioning[11] and increased risk of suicide.[24] Additionally, the effect of substances is variable. Among individuals with OCD, use of stimulants may exacerbate OCD symptoms,[25] while opiates may alleviate those symptoms.[26] In the majority of patients (70%), the onset of OCD precedes the onset of SUD,[11] supporting the hypothesis that some substances may alleviate OCD symptoms.[10] Alternatively, the predilection to obsessive thoughts and compulsive behaviors can fuel substance use by increasing obsession with using the drug or engaging compulsively in drug-using rituals. Whatever the nature of the relationship, coexistence of OCD and SUD is strong and can lead to undesirable consequences;[23] a situation that is exacerbated if the patient also suffers from MDD.[27,28]

OCD, characterized by intrusive and distressing obsessions and compulsions,[29] is often intertwined with MDD, marked by pervasive and debilitating sadness.[30] This intricate interplay between OCD and depression adds layers of complexity to the clinical presentation, making it a multifaceted challenge to address. The presence of addiction in this context further compounds the complexity. Both OCD and depression can hinder the effectiveness of addiction treatment.[31] Bupropion is effective in the treatment of MDD[32] and is generally ineffective in the management of OCD.[33] However, in our patient, the profile of depressive symptoms, with overwhelming anhedonia, suggested the bupropion may be effective. He experienced significant improvement, which persisted after the methadone was discontinued.

The treatment of choice for OCD is use of Serotonin Reuptake Inhibitors (SRIs).[34,35] For OCD, the number needed to treat at standard doses of SRIs is approximately 5, and non-responders do not obtain significant improvement with dose escalation.[35] Nonetheless, successful treatment of OCD will improve outcomes overall for a patient with comorbidity with SUD.[11] The success of our patients in discontinuing the concomitant opiate after treatment was initiated for the OCD or depression is consistent with the finding that when these patients are engaged in successful psychiatric treatment, they have lower rates of active substance use than the general population.[11,36]

Ultimate success in addressing addiction in the presence of OCD and depression necessitates collaboration between psychiatric and addiction medicine professionals. The Addiction

Treatment Center protocol addresses the primary substance problem and coexisting psychiatric conditions with both medications and individual and group therapy focusing on support, the 12 steps, and Cognitive-Behavioral Therapy (CBT).[37]

Conclusions

The complex interplay between OCD, MDD, and addiction underscores the need for specialized, multidisciplinary care. Tailored treatment plans that consider the nuances of these conditions can lead to more favorable outcomes, as exemplified by the successful cases presented here. By addressing the intricate relationship between these mental health disorders and addiction, clinicians can better navigate the challenges and offer hope for comprehensive recovery in affected individuals.

List of abbreviations

Obsessive-Compulsive Disorder (OCD)
Major Depressive Disorder (MDD)
Substance Use Disorder (SUD)
Diagnostic and Statistical Manual (DSM)
Serotonin-Reuptake Inhibiting (SRI)
Cognitive-Behavioral Therapy (CBT)

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