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Review Article

Medical Psychiatric Challenges in the Treatment of Obsessive-Compulsive Disorder and Eating Disorders

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Abstract

This paper examines the intricate relationship between Obsessive-Compulsive Disorder (OCD) and eating disorders (EDs), focusing on their diagnostic criteria, comorbidity, shared characteristics, and the profound medical and psychiatric complications that arise from these conditions. OCD is characterized by intrusive obsessions and compulsions that significantly impact daily functioning, while EDs, including Anorexia Nervosa, Bulimia Nervosa, and Binge-Eating Disorder, involve severe disturbances in eating behaviors and body image. These disorders often co-occur, with up to 41% of individuals with EDs also suffering from OCD. The shared symptoms, such as obsessions, compulsions, avoidance behaviors, and perfectionism, highlight the complex interplay between OCD and EDs, complicating diagnosis and treatment.

The medical complications associated with this comorbidity are severe and varied, affecting multiple organ systems. Gastrointestinal issues, proctological problems, oral health deterioration, cardiological dysfunction, electrolyte imbalances, kidney disorders, and hormonal dysregulation are common. Additionally, sleep disorders are prevalent, further exacerbating both psychiatric and physical health outcomes. Effective treatment requires a holistic approach that addresses the unique needs of each individual, with integrated care involving specialists across medical and mental health fields.

This comprehensive approach is crucial to mitigating the devastating impact of OCD and EDs, improving overall well-being and quality of life for affected individuals.

Introduction

The mind and body are intrinsically linked, a connection that has been acknowledged since ancient times. The Roman poet Juvenal encapsulated this idea with the phrase “Mens sana in corpore sano,” meaning “a healthy mind in a healthy body.” This interdependence is particularly evident in the relationship between psychiatric and other illnesses, where one can precipitate or exacerbate the other. This paper explores the complex interplay between Obsessive-Compulsive Disorder (OCD) and eating disorders (EDs), focusing on their diagnostic criteria, comorbidity, shared characteristics, and the profound medical and psychiatric complications that arise from these conditions.

OCD

Obsessive-Compulsive Disorder is characterized by obsessions of recurring thoughts/images that are intrusive and inappropriate, leading to more than excessive worrying. Individuals with OCD will also engage in compulsions such as repetitive behaviors, mental acts, and rituals, and perform them excessively to alleviate anxiety in response to obsession. For a diagnosis, these symptoms must cause significant distress, consume more than one hour per day, and interfere markedly with daily functioning. Another disorder should also not better account for these obsessions and compulsions. OCD often presents with high comorbidity, complicating its diagnosis and treatment.

Eating Disorders

Eating disorders encompass several conditions, including Anorexia Nervosa, Bulimia Nervosa, and Binge Eating Disorder. These disorders are marked by severe disturbances in eating behaviors and related thoughts and emotions, leading to significant medical and psychological issues. Anorexia Nervosa involves restrictive food intake resulting in significantly low body weight, an intense fear of gaining weight, and behaviors that hinder weight gain [1]. It has two subtypes: restricting and binge-eating/purging. Bulimia Nervosa is characterized by recurrent binge eating episodes followed by compensatory behaviors to prevent weight gain, such

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as vomiting or excessive exercise. Binge-Eating Disorder involves recurrent binge eating episodes without subsequent compensatory behaviors, leading to distress and potential weight gain. Psychiatric disorders, particularly EDs, can lead to severe medical complications. Notably, EDs and OCD are highly comorbid, with approximately 41% of individuals with EDs also suffering from OCD. These two conditions share several common symptoms, including obsessions, compulsions/rituals, avoidance behaviors, and perfectionism. The overlap in these symptoms underscores the complex interplay between EDs and OCD, often necessitating integrated treatment approaches to address both conditions effectively.

Anorexia Nervosa

Anorexia Nervosa is a severe ED defined by key diagnostic criteria including restrictive food intake leading to significantly low body weight, an intense fear of gaining weight or becoming fat, behaviors that interfere with weight gain, undue influence of body weight/shape on self-evaluations, and lack of recognition of the severity of low body weight. One subtype of anorexia involving restriction is characterized by weight loss achieved primarily through dieting, fasting, and exercise. The binge-eating/purging subtype is characterized by engaging in recurring episodes of binge eating and purging.

Individuals with OCD and Anorexia may develop obsessions about the correct amount of food intake and avoidance of food, just-right appearance, overvalued ideation, and compulsions to prevent weight gain, poor insight, and perfectionism. The restricting subtype may include having an avoidance of food due to obsessions about the effects of food types/amounts and compulsive and self-limiting behaviors. The binge-eating/purging subtype may include pathological disgust and fear leading to compulsive behavior.

Bulimia Nervosa

Bulimia Nervosa is characterized by several key diagnostic criteria including recurrent episodes of binge eating, consuming an excessive amount of food within a discrete period of time, experiencing a sense of losing control over eating during these episodes, having recurrent compensatory behaviors to prevent weight gain, and an undue influence of body weight/shape on self-evaluations [2].

Bulimia Nervosa shares several features with OCD. Some of these include compulsive and impulsive behavior to minimize distress, disgust, and fear of weight gain, pathological disgust followed by compulsive attempts to neutralize resulting distress through compensatory behaviors, and obsessions related to appearance and body weight/size.

Binge-Eating Disorder

Binge-Eating Disorder has diagnostic criteria that may include recurrent episodes of binge eating in a discrete period of time, having a feeling of lack of control over how much one is eating, and marked distress when binge eating is present. These binge eating episodes are associated with eating faster than normal, eating until uncomfortably full, eating lots of food, even when not physically hungry, eating alone due to embarrassment over quantity consumed, feeling.

In OCD, binge eating is present as compulsive behavior aimed at minimizing distress, difficulty in harnessing responses, compulsive behavior that does not represent normal eating behaviors, avoidance of distress and discomfort, and overall distress.

Medical Complications

The interplay between OCD and EDs can lead to severe medical complications, including but not limited to gastrointestinal problems, proctological issues, oral health problems, cardiological dysfunction, electrolyte imbalances, kidney dysfunction, hormonal dysregulation, and sleep disorders.

Gastrointestinal Issues

Eating disorder behaviors, such as vomiting, laxative abuse, and restrictive food intake, lead to a wide array of gastrointestinal tract problems [3]. These include belching, gas, bloating, nausea, inability to feel full, irregular bowel movements, reduced gastric motility/indigestion, constipation, colitis, acid reflux, and ulcers [4,5].

Proctological Issues

Proctological problems can also arise from the abuse of laxatives and enemas [6]. Examples include anal bleeding, constipation, rectal prolapse, hemorrhoids, and urinary tract infections due to frequent bowel movements [7].

Oral Health Issues

There is a strong correlation between poor oral health and EDs, particularly due to self-induced vomiting. Symptoms include dental erosion, gum disease (periodontal disease), and dental hypersensitivity [8]. Additionally, EDs are the primary causes of esophageal motility disorders, esophageal cancer, and tears and bleeding in the esophagus. Poor oral health is historically linked to cardiovascular disease, premature birth and low birth weight, pneumonia, and endocarditis [9,10].

Cardiological Issues

Cardiac disorders account for at least one-third of all deaths associated with Anorexia Nervosa. It has been shown to cause bradycardia, low blood pressure, higher systolic BP, decreased oxygen levels, hypotension, tachycardia, and decreased left ventricle mass [11].

Electrolyte Deficiency

Purging behaviors, such as vomiting and laxative use, are often associated with dehydration and electrolyte imbalance. Symptoms of dehydration include fatigue, dizziness, muscle cramping, fainting, racing heart, and dramatic drops in blood pressure [12]. Severe dehydration can cause migraines and tension due to a lack of liquids and, ultimately, organ failure. Symptoms of hypokalemia (low potassium levels) include muscle weakness and cramping, shortness of breath, severely slowed digestion leading to extreme constipation, and cardiac arrhythmia [13]. Symptoms of hyponatremia (low sodium levels) include headache, lethargy, nausea, dizziness, seizures, coma, confusion, respiratory failure, and brain swelling [14].

Kidney disorders are also a common complication in patients with EDs.

Proper kidney function depends on balanced electrolytes. As discussed, patients with EDs often have electrolyte imbalances which contribute to problems with kidney function [15]. Examples include acute kidney injury (AKI) due to dehydration and overall volume depletion, chronic kidney disease (CKD) due to chronic low blood potassium and volume depletion, and nephrolithiasis (kidney stones) [16]. All lead to decreased ability of the kidney to excrete free water due to low solute intake.

Hormone Disorders

Hormones serve as a conductor for all the organs in the body. Hormone instability can cause mood disorders and anxiety disorders and plays a role in the onset and exacerbation of OCD symptoms [1]. There has been evidence that reproductive hormones (i.e., estradiol) play a part in the abnormal food intake characteristic of EDs. Irregular menstruation is common in women with EDs, as low body weight leads to a reduction of the body's fat stores which are necessary for the production of reproductive hormones, such as progesterone and estrogen [17]. Disordered eating has been shown to have an impact on infertility as well as maternal well-being and fetal well-being [18].

Sleep Disorders

Sleep disorders are extremely common in patients with EDs, with individuals experiencing a reduction in deep sleep and REM sleep, and lethargy due to lack of energy [19]. Serotonin imbalance in OCD causes further sleep disturbance having significant effects on the cardiovascular, endocrine, immune, and nervous systems such as obesity, diabetes, glucose intolerance, hypertension, and cardiovascular disease [20].

Patients with EDs are shown to have a marked exacerbation of mental health symptoms such as anxiety and depression. When it comes to treatment, sleep disorders should be addressed first and foremost as the treatment of other disorders will not be as effective if the sleep-wake cycle is off.

Modifiable Risk Factors

Some modifiable risk factors for cognitive decline include in taking glutathione (GSH), broccoli, cauliflower, cabbage, brussels sprouts, garlic, parsley, spinach, and beets. The timing of food choices throughout the day is also important. For effective sleep, magnesium improves one's circadian rhythm and the internal body clock, promoting better sleep, length of sleep & ability to fall asleep [20]. Calcium is associated with REM sleep, helping the amino acid tryptophan synthesize melatonin, which influences circadian rhythms and facilitates sleep. Zinc may also be important in sleep duration..

Assessment

Unfortunately, the rate of misdiagnosis of EDs and OCD is far too common. Thus, a proper, thorough, slow, and detailed evaluation is critically important, which may include personal interviews, discussions with family members, standardized tests, consultations with other medical professionals, and more. When a patient is not properly diagnosed, not only is successful treatment impossible, but it can also have detrimental long-term effects.

The key to effective and successful treatment is addressing each person as a unique individual with their own personal issues, needs, concerns, and circumstances. Patients should initially be assessed with a blank slate and then have tailored treatments on a case-by-case basis. Potential therapies include referring patients to specialists who can treat each of their specific medical concerns such as psychiatrists, endocrinologists, gynecologists, gastroenterologists, cardiologists, dieticians, personal trainers, proctologists, and more. Combined teams of medical and mental health experts should collaborate on treatments, prompting discussion and coordination throughout. This ensures that both OCD and EDs are addressed separately as both need to be treated. Psychiatric treatment for both OCD and EDs should be conducted, including behavioral treatment, such as eating with the patient 3x a day, eliminating ritualized behaviors, and grocery shopping with the patient as well.

Conclusion

In conclusion, the intricate relationship between OCD and EDs underscores the urgent need for integrated treatment approaches. Both conditions share overlapping symptoms and can exacerbate each other, leading to profound medical and psychiatric complications. Addressing these disorders requires a holistic approach that considers the unique needs of each individual, involving collaboration among psychiatrists, endocrinologists, gastroenterologists, and other specialists. By prioritizing comprehensive care and tailored interventions, we can mitigate the devastating impact of OCD and EDs, promoting not only physical health but also enhancing overall well-being and quality of life for those affected.

Conflicts of Interest

There are no conflicts of interest.

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