

COVID-19 pandemic, substance use disorders and body image issues, a worrisome correlation

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Abstract. The SARS-CoV-2 pandemic has profoundly affected the social fabric and the economic and health care viability and functioning of most countries. Aside from its deeply destructive impact on health care systems and national economies, the pandemic has jeopardized people's emotional and psychological well-being as well. The authors aimed to shed a light on how the pandemic has been affecting patients with addiction issues and body dysmorphic disorder (BDD), which is characterized by negative thoughts about appearance and body misperceptions. People with body dysmorphic disorder are in fact at increased risk of developing substance use disorders, and such a destructive association has only been made more severe by pandemic-related restrictions, emotional distress and anxiety, as well as longer exposure to social media and online interactions. This is a major cause for concern, because substance use worsens symptoms of BDD and contributes to unfavorable treatment outcomes.

Key Words:

COVID-19, Substance use disorder (SUD), Body dysmorphic disorder (BDD), Obsessive-Compulsive disorder, Eating disorders.

Introduction

The SARS-CoV-2 pandemic and its cascading effects have had far-reaching ramifications on the social fabric and on economic and health care viability and functioning of most countries. Overwhelmed facilities have sometimes compelled doctors to make ethically controversial triage decisions based on prioritizing patients with better chances of survival. Moreover, along with its catastrophic impact on health care systems and national economies, the pandemic has severely impacted millions of people's emotional and

psychological well-being¹. Psychiatric patients in particular have been hit hard. For instance, the repercussions on patients with addiction issues have been of extraordinary severity^{2,3}.

Substance and Alcohol Abuse Compounded by Pandemic Containment Measures?

Pandemic response measures, such as social distancing, closures of public spaces where people used to gather and ensuing isolation have disrupted the healthcare and support services on which patients who use or have used substances generally rely on. Certain groups, such as those with preexisting mental health difficulties and a history of substance abuse, may be especially at risk. Relatively few studies have looked into the usage patterns of image and performance-enhancing drugs (IPEDs), the so-called "lifestyle drugs", over the course of the ongoing pandemic. Such a classification includes numerous substances taken for various purposes, ranging from anabolic steroids and sexual enhancers⁴⁻⁸ to other drugs capable of enhancing endurance⁹ muscle mass¹⁰, cutting body fat levels, boosting metabolic rates, and fostering weight loss¹¹ in addition to new psychoactive substances^{12,13} (NPS). Even before the pandemic broke out, the European Monitoring Centre for Drugs and Drug Addiction had already issued a warning about the emergence of synthetic opioids, between 50 and 100 times more potent than morphine¹⁴. That is highly relevant, especially since the economic and social changes resulting from the pandemic can make SUD spiral out of control¹⁵⁻¹⁹. Higher rates of substance use are reportedly linked to higher levels of pandemic-related worry or anxiety. At the same time, the noxious correlation cuts both ways: substance use disorders are listed as underlying medical conditions deemed to be high risk for severe COVID-19 illness²⁰ and "breakthrough" infections in fully

vaccinated SUD patients²¹. As such dynamics unfold, substance use may be perceived as a way of coping with such negative mindsets and distress thereof^{22,23}. Although such findings have arisen from analysis of substance use patterns, it appears reasonable to assume that pandemic-related substance abuse, i.e., risky and noxious substance use dynamics closely linked to physical, interpersonal, or legal adverse consequences, may be affected as well, albeit current research is not yet decisive enough to draw a conclusion.

A rather substantial increase in the use of recreational drugs or alcohol over pre-pandemic levels has been reported in the U.S. and Canada, and higher rates of alcohol consumption (10-18% of adults), cannabis (6-8%), and other drugs (3%) have been reported. In light of the extent to which the pandemic has affected drug markets and trafficking, and due to the very nature of currently available substances, which are often difficult to detect, drug screening and analysis needs to be emphasized and optimized to face these new emerging threats²⁴⁻²⁶.

Body Dysmorphic Disorder in Times of Pandemic and Correlation with SUD

In addition to escalating substance use disorders, however, another major threat looms over millions of people with mental health vulnerabilities: body image issues linked to Body Dysmorphic Disorder (BDD), i.e., a distorted image of oneself which manifests through self-perceived or self-imagined ugliness. BDD may play a prominent role in the escalating mental distress arising from generally normal dissatisfaction with one's perceived image. The correlation between BDD and SUD has been extensively researched and findings are rather significant: those suffering from dysmorphic disorder are substantially more likely to present an addiction disorder involving drug and/or alcohol abuse. Scholars²⁷ have found that as many as nearly half of all people with BDD had some type of drug use disorder.

BDD sufferers often turn to substances to escape or at least allay the psychological/emotional anguish caused by their body-image dissatisfaction and misperception, or as a misguided way to self-medicate in order to grapple with their emotional distress. That can lead to drug abuse, since medical advice is often not sought by such individuals²⁸. The role played by impulsivity in such patients, i.e., predisposition towards untimely and risky reactions, often resulting in unfavorable outcomes, may be a con-

tributing candidate mechanism making them vulnerable to both BDD and SUDs^{28,29}. However, BDD has been categorized as an Obsessive Compulsive and Related Disorders, which would point to compulsivity as a core clinical element of BDD, rather than impulsivity³⁰. Nonetheless, impulsivity and compulsivity often co-exist in individual cases, and are positively correlated at the latent phenotypic level. Impulsive aspects of BDD could theoretically be observed at the level of comorbid disorders, personality traits, and/or cognitive functioning.

Body image issues within the pandemic context are still a rather under researched component. Nonetheless, maladaptive eating habits and disorders arising from body dissatisfaction have reportedly been increasing³¹ as the COVID-19 pandemic unfolded worldwide. Fear of being negatively judged indeed constitutes a core element of anxiety and consequent maladjustment from a social standpoint, and has major effects on social anxiety³², as reported by recent studies on the subject^{33,34}. Mental health issues, such as body dysmorphia and negative body image, stem from the way one sees themselves and envisions themselves mentally. Those key elements come to shape what individuals ultimately perceive and believe about their own physical attributes, in terms of how they feel about their height, weight and shape. As a result of restrictions of movement and lockdowns, people have been getting longer than usual screen time, making them more likely to be exposed to stereotyped ideal models based on thinness for women, or on substantial muscularity with low body fat levels as benchmarks of masculinity for men to look up to and strive for³⁵. At the same time, however, decreased physical activity may have exacerbated negative thoughts about weight or shape. After all, it has already been reported how stress and anxiety engendered or exacerbated by the pandemic can affect outcomes related to body image under extraordinarily challenging circumstances³⁶. At the same time, it is possible that the additional anxiety and stress caused by COVID-19 might have negatively impacted individual coping mechanisms, on which people rely with rising levels of negativity and anxiety. Such mechanisms and dynamics are currently being assessed into with growing attention. According to a recently published retrospective cohort study³⁷ of more than 230,000 patient health records, one in three COVID-19 survivors received a neurological or psychiatric diagnosis within six months of infection.

Discussion

Pandemic-related stress has severely affected BDD sufferers, and such harmful dynamics should not be underestimated: 1 to 2% of the population in the United States³⁸ has reportedly been affected, with high levels of emotional distress and reduced quality of life. That percentage rises to 2.2% in adolescents, and as high as 7.4% in adult and adolescent psychiatric inpatients³⁹. Such estimates refer to actual diagnosis, hence they are likely understated. It is particularly harmful for people with BDD to be forced to stay at home as a consequence of the pandemic restrictions enforced in most nations. BDD patients, not unlike those presenting body-focused repetitive behavior (BFRB) or obsessive-compulsive disorder (OCD), have experienced worse symptoms during the pandemic, as mentioned earlier, since being forced to stay home entails limited access to exercise and other types of stress relief, and may result in more time spent looking into the mirror, which means negative thoughts and emotions can be easily amplified. The correlation between pandemic-induced trauma and mental health symptoms is worthy of consideration, in light of the prolonged stress that affected millions of individuals already at risk. A clear relationship has been found between traumatic life events and psychopathology, along with the link between trauma and body dysmorphia⁴⁰. The harmful effect is aggravated in presence of psychiatric comorbidities. A comparison of the different degrees of trauma on individuals with only OCD, and on those with both OCD and BDD, has shown that the latter group was more likely to experience at least one traumatic event and symptoms of post-traumatic stress disorder (PTSD). Higher incidence of major depressive disorder and panic disorder was also observed in that same segment⁴¹. There is no denying that the inability to establish contacts and human connections with others on account of lockdowns, mandatory isolation and self-quarantine has given rise to unprecedented new challenges and hurdles on the path to recovery. A major risk liable to compound the most harmful BDD symptoms, particularly for those who have experienced traumatic events and PTSD, is linked to the inability to establish positive interpersonal contact and relatedness, both of which play a key role in healing trauma. Many BDD sufferers report social avoidance due to the distress from their perceived flaws⁴², and feelings of loneliness and isolation, and may find it much harder to keep under control other comorbid disorders, such as eating disorders and depression⁴³. In that re-

spect, it has been reported⁴⁴ that COVID-19 restrictions can negatively affect the recovery process of those suffering from eating disorders, with bulimic patients being more at risk, while childhood abuse victims were found to be more likely to report PTSD symptoms stemming from pandemic-related stress, possibly leading to relapses of pathological eating behaviors. Although not having to attend in-person social events and commitments can logically be viewed as a rather positive change for such patients, as can mask-wearing for many BDD sufferers (particularly those with concerns about facial features), longer exposure to screen time may have significant downsides as well. Although its impact on emotional well-being under lockdown conditions has not yet been fully explored, in light of the considerable degree of variability in usage patterns^{45,46}, studies have found that videoconferencing can further distort the appearance of someone who is already perceiving self-body image in a distorted fashion^{47,48}. Apps, such as FaceTime, Zoom, Skype, on which many rely to get connected with others during the pandemic, have had an unwanted side-effect, extremely harmful to BDD sufferers: the enforcement and perpetuation of a nearly constant reflection of the user's image on the screen can make him or her develop a compulsion to check his or her appearance alongside other people's faces, which can encourage constant and potentially noxious comparisons with others⁴⁹. Even before the pandemic broke out, the overall share of the workforce operating remotely had been growing for years: a 140% rise has been reported from 2005 to 2019, and that rate of growth has risen further since the pandemic began⁵⁰. Still, it would be wrong to assume that such trends are limited to professional reasons. COVID-19 and ensuing restrictions have caused meetings and social interactions to go into video mode, and that shift has brought about evident consequences, such as the abnormally high number of people seeking plastic surgery in the US⁵¹, including adolescent users, with all the ethical implications that entails. Although the motivations at the root of one's decision to resort to cosmetic surgery may be various, and so is its impact⁵²⁻⁵⁴, such rising trends do constitute a red flag. Arguably, in fact, if a body image concern is based on unrealistic aspirations and distorted perceptions, resorting to cosmetic surgery is not likely to lead to any viable solution. It is therefore of utmost importance to assist patients in coping with the distorted image of themselves, rather than in changing the way they look through surgery. This new phenomenon has been referred to as "Zoom Dysmorphia", a disorder

triggered by a disproportionate and obsessive focus on a perceived flaw, whether real or imaginary, in one's looks^{55,56}. We believe that in order to provide help for those suffering from such conditions, it needs to be acknowledged that negative body image is not necessarily about the body itself: there are often deeply rooted feelings of unworthiness at play. When an individual experiences harsh thoughts about their bodies, the root causes of such negativity should be identified without the pressure coming from nearly constant self-assessment and criticism. In that regard, overexposure to social media can have a devastating impact in terms of creating an abnormal need for social comparison which causes millions people to turn a critical lens on themselves. Many posts in fact revolve around daily at-home workouts, cooking, and avoiding weight gain. Such dynamics are bound to increase unhealthy pressure to live up to a stereotypical "ideal" which is hardly attainable for everyone. According to a survey conducted by FHE Health, a healthcare institution that provides care for patients with behavioral health disorders, 23% of women surveyed claimed that social media impacts how they feel about their bodies⁵⁷. Negative body image is one of the main causes of eating disorders, such as anorexia nervosa and bulimia nervosa⁵⁸. BDD itself is reportedly linked to eating disorders: a study⁵⁹ that surveyed 1,665 health club members found a 30.5% prevalence of BDD among respondents who indicated eating disorders, as opposed to 21.2% in the subgroup with no eating disorder symptomology. Healthcare professionals treating patients with BDD should therefore regularly screen their patients for eating disorders. Against that backdrop, it appears reasonable to assume that fears and uncertainties resulting from the unpredictable pandemic developments, along with the burden imposed upon us all by the restrictions introduced to help tackle it, are likely to be determining or contributing factors in various major mental conditions. Along those lines, a 2021 longitudinal analysis⁶⁰ has reported considerable changes in eating habits, in terms of quantities of food eaten throughout the first lockdown in the United Kingdom.

Conclusions

Interestingly, the above-mentioned study by Robertson et al⁶⁰ analyzed how individuals with current or past diagnosis of eating disorders experienced substantially greater difficulties in coping with changing eating patterns, heightened anxiety

and worry about food, urge to exercise and concern about the way they look, even compared to patients suffering from other mental health and developmental disorders. Such findings further highlight the way in which unprecedented circumstances, such as the ones that made it necessary to issue stay-at-home mandates and severe restrictions, provide no frame of reference to devise viable solutions to such multifaceted issues⁶¹. Further research is needed to shed a light on key points, such as how and to what degree individuals under pandemic strain deal with changes in their ability to regulate their own eating habits under stressful circumstances, food-related worries and misgivings, concerns about looks, and mounting pressure arising from constant and unhealthy comparison with others. It may be difficult to identify how and to what extent changes in eating, exercise and body image may be linked to psychological distress, and such complexities are likely to complicate the development and timely introduction of public health programs aimed at supporting healthy ways to consolidate exercise and eating habits, particularly under emergency circumstances, such as those brought about by the still ongoing pandemic. Hence, clarifying the relationships between the multiple factors constituting vulnerabilities for social anxiety, (e.g., appearance anxiety, maladaptive perfectionism, fear of negative evaluation) and eating disorder symptoms⁶² needs to be viewed as an integral part of an ongoing, concerted effort to prevent body image disorders and potentially chronic diseases linked to nutrition-related aberrant habits, often coupled with substance use issues in individuals whose vulnerabilities have been exacerbated by the extraordinarily stressful pandemic scenario.

Conflict of Interests

The Authors declare that they have no conflict of interests.

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