Editorial

Hand Washing: When Ritual Behavior Protects! Covid-19 Experience in Children and Adolescents with (and without) Obsessive-Compulsive Disorder

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The Coronavirus Disease 2019 (COVID-19) pandemic and the exceptional containment measures adopted in response (e.g., lockdowns, social distancing, individual protection measures) profoundly affected the lives and mental health of young people [1].

The suspension of school attendance and sporting activities, and above all, the prohibition or limitation of social interactions with friends and relatives resulted in significant isolation and distress for many youths [2].

Numerous review articles and meta-analyses have documented these negative effects [3].

Beyond these general trends, clinical populations such as children and adolescents with Obsessive-Compulsive Disorder (OCD) were particularly affected.

OCD symptoms are widespread in the youth population but it is not easy to recognize them.

It is estimated that about 50% of adults with obsessive-compulsive disorder had an early onset of symptoms before the age of 18 [4], despite this it is difficult to identify the onset.

Present work aims to consider remotely the experience of the COVID-19 pandemic in children and adolescents with (and without) obsessive-compulsive disorder investigating the importance of environmental factors, individual vulnerability, and stressful personal experience (and the impact of protection measures) as possible risk factors, the clinical significance of behavior and the consequences on psychological well-being.

Research has shown that increased stress and anxiety tend to significantly exacerbate OCD symptoms in young people [5]. Indeed, during the pandemic, fear of contagion and heightened attention to hygiene (through, e.g., hand washing) triggered an increase in OCD symptoms among younger generations [6]. Added to this, Cunning C *et al.* [7] have reported associations between specific COVID-19 factors (e.g., lockdown measures, family adversity) and an increase in OCD diagnoses, showing that the former tended to intensify fear of contagion and attention to hygiene.

Current data on OCD prompt a broader reflection on how emotionally intense experiences may trigger compulsive behaviors (e.g., hand washing), even among young people without OCD.

In this vein, research has shown that unfavorable environmental conditions, fear of contagion, and particular subjective vulnerabilities (such as emotional reactivity, avoidance, and depression-anxiety) may become risk factors and strong predictors of obsessive-compulsive symptoms [8]. This suggests that the frequency of obsessive-compulsive symptoms in young people and adolescents may surpass the estimated global OCD prevalence of 1–3% [9], at least particularly adverse events such as pandemics or disasters.

Another consideration, confirmed by the pandemic, is the role played by anxiety and internal tension in stimulating compulsive/repetitive behavior within the obsessive-compulsive mechanism.

During the pandemic, children and adolescents with OCD were urged to adhere to the recommended containment measures, which included hand washing. While these

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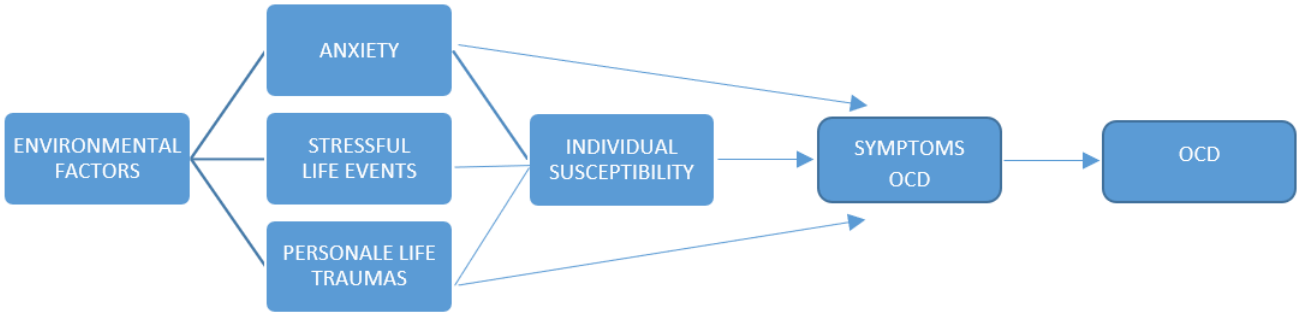

Fig. 1. Vulnerability to Obsessive-Compulsive Disorder (OCD).

measures served the vital purpose of guarding individuals against infection, in the OCD population, they may also have increased levels of anxiety, concern, and obsessive doubt/uncertainty about infection. This state intensified the repetitions of the compulsion of pathological washing and the perfection of the ritual. The result was an exacerbation of obsessive-compulsive symptoms.

Finally, it is relevant to consider the impact of individual and family experiences during the pandemic (especially during the initial phase), which may have affected the emotional state of children and adolescents, possibly leading to strong psychological distress.

Recall for example how much family lifestyle changes associated with lockdown or quarantine measures (e.g., alteration of sleep rhythm, lack of education, and face-to-face social interaction due to confinement) may have caused anxiety, distress, fear of infection, and low mood, reducing the ability to implement coping strategies, in the absence of psychiatric support services [10].

Reflecting on the relationship between pandemics or catastrophes, the experience of trauma, and OCD [11] is crucial. Evidence shows a high prevalence of OCD among individuals with a trauma history (i.e., 30–82%), compared to the general population (e.g., 1–3%) [12]. A potential explanation for this is that intrusive thoughts in response to a traumatic event may organize themselves into obsessive thoughts, triggering repetitive/compulsive behaviors to counteract the distressing obsessions of the trauma. Research has shown that the specific characteristics of the traumatic event may even influence the precise symptomatology of later OCD [13]. The close association between OCD and trauma supports similarities in both presentation (with respect to, e.g., intrusive thoughts, maladaptive appraisals, neutralizing behavioral responses) and course [14].

These considerations may be particularly relevant in children and adolescents who have directly experienced a traumatic event, such as the loss of a parent, while different can be the consideration when children and adolescents are exposed to stressful and non-traumatic life events. Raymond *et al.* [15] found that, during the pandemic, symptoms of post-traumatic stress and anxiety were reported more often by young people with socio-emotional weakness—a profile characterized by anxious traits, intolerance to uncertainty, and a tendency towards rumination. Thus, specific groups of adolescents may have a lower threshold for tolerating negative life events, making them more susceptible to developing obsessive-compulsive symptoms as a maladaptive coping measure.

These findings reinforce the role played by vulnerability in children and adolescents during stressful life events and the insidious nature of anxiety in triggering obsessive-compulsive symptoms, through a pathway involving excessive worry, overthinking, and avoidance behaviors. In this vein, it is important to remember the intense anxiety and stress reported by individuals of all ages during the first wave of the pandemic.

These reflections underscore that obsessive-compulsive disorder, despite being extensively debated and studied, remains one of the most enigmatic and irrational disorders. The pandemic, despite its challenges, may have improved our understanding of this disorder by allowing us to consider numerous simultaneous factors, including fear of contagion, protective measures, environmental factors, individual susceptibility, and personal life traumas.

We propose an example of the disorder in Fig. 1.

Understanding how these factors may trigger obsessive-compulsive symptoms is necessary for advancing knowledge of the pathogenesis and clinical profile of OCD, as well as for improving its diagnosis and treatment.

Abbreviations

COVID-19, Coronavirus Disease 2019; OCD, Obsessive-Compulsive Disorder.

Availability of Data and Materials

Not applicable.

Author Contributions

FD and MP have made substantial contributions to the conception and design of the work. FD wrote the manuscript. SV contributed to the revision of the final version of the manuscript and supervised the project. All authors contributed to important editorial changes in the manuscript. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.

Ethics Approval and Consent to Participate

Not applicable.

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Conflict of Interest

The authors declare no conflict of interest.

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