

RISK FOR PATHOLOGICAL CONTAMINATION FEARS AT CORONAVIRUS TIME:
PROPOSAL OF EARLY INTERVENTION AND PREVENTION STRATEGIES

Andrea Pozza, Federico Mucci, Donatella Marazziti

Abstract

Covid-19 outbreak represents a stressful life event that might potentially trigger psychopathological symptoms in people with a pre-existing vulnerability. This is particularly relevant for the onset or exacerbation of pathological contamination fears in people with vulnerability to obsessive-compulsive disorder (OCD) or in those individuals with sub-threshold obsessive-compulsive symptoms, or who achieved recovery after a successful treatment. Strict movement restrictions and hygiene habits are essential to limit Covid-19 diffusion and delay its progression. However, the occurrence of dysfunctional, clinically relevant contamination fears may be the downside highlighting the importance of a more comprehensive knowledge on the vulnerability factors of OCD in order to inform policy making and risk communication on one hand, early identification and prevention on the other one. The importance of early identification and prevention of OCD during critical periods, such as the present one, is of paramount importance since this psychiatric condition is associated with a prolonged latency in the correct diagnosis and first professional contact which is in turn associated with worse prognosis and higher resistance to treatment.

Key words: Covid-19, obsessive-compulsive disorder, contamination fear, early identification, early intervention, prevention

Andrea Pozza^a, Federico Mucci^b, Donatella Marazziti^b

^a Department of Medical Sciences, Surgery and Neurosciences, University of Siena

^b Department of Clinical and Experimental Medicine, Section of Psychiatry, University of Pisa

On March 11, 2020, the World Health Organization (WHO) defined Covid-19 outbreak as a pandemic and that all countries should soon strive to limit its rapid progression (WHO, 2020). As a result, several governments adopted a series of countermeasures to contain the virus spread including more or less severe restrictions and quarantine.

Unavoidably, this dramatic situation represents a stressful life event that might potentially trigger psychopathological symptoms in people with a pre-existing vulnerability. This is particularly relevant for the onset or exacerbation of contamination fears associated with impairing safety behaviours (i.e., washing/checking, avoidance, reassurance seeking by doctors/Internet) in individuals with obsessive-compulsive (OC) tendencies/traits, or with a full diagnosis of obsessive-compulsive disorder (OCD). All these negative effects may be also amplified by distorted or ambiguous information by the media on the risk of contamination and quarantine (Brooks et al., 2020).

The importance of early identification and prevention of OCD during critical periods, such as the present one, is of paramount importance. Indeed, this psychiatric condition is associated with latency in the correct diagnosis and first professional management of around 9-10 years. A longer duration of untreated

illness is in turn associated with worse prognosis and higher resistance to treatment (Fineberg et al., 2019).

Different populations may be considered at higher risk for contamination-based OC symptoms at Covid-19 time. The offspring of first-degree relatives with OCD diagnosis and contamination symptoms should be regarded as a vulnerable group, through vicarious exposure to probands' beliefs/behaviours, or through genetic vulnerability (Chacon et al., 2018). During quarantine, a heightened use of social media can also increase the risk to be exposed to biased information about the Covid-19, therefore, to a more frequent trend to use these media to seek reassurance against fears. Further, those OCD patients who are in remission/recovery after a successful treatment should be periodically monitored with respect to their risk of relapse, as several procedures due to quarantine and strict hygiene measures can increase the risk for relapse in such patients. Indeed, some reasoning errors specific to OCD vulnerability may develop during this period, such as the so-called *ex consequentia* reasoning ("I am washing my hands, therefore there must be dirt") (Dettore & O'Connor, 2013). As previously reported (Tibi et al., 2017), depressive symptoms emerging during the quarantine due to the strong reduction of positive reinforces, can in turn represent vulnerability/

OPEN ACCESS

Citation: Pozza, A., Mucci, F., Marazziti, D. (2020). Risk for pathological contamination fears at coronavirus time: Proposal of early intervention and prevention strategies. *Clinical Neuropsychiatry*, 17 (2), 100-102.

<https://doi.org/10.36131/CN20200214>

Copyright: © Clinical Neuropsychiatry
This is an open access article. Distribution and reproduction are permitted in any medium, provided the original author(s) and source are credited.

Funding: None.

Competing interests: None.

Corresponding author

Andrea Pozza, PhD
Department of Medical Sciences,
Surgery and Neurosciences,
University of Siena
Viale Bracci 16, 53100 Siena, Italy
Phone: + 39 0577586409
Fax: +39 0577233222
E-mail: andrea.pozza@unisi.it

maintenance factors or consequences of OC symptoms. The effects of quarantine on the recrudescence of OC symptoms may be also exerted through increased family accommodation or marital distress (Wu et al., 2016).

Elderly people represent another group that should be carefully monitored for a late onset of contamination fears (Haines et al., 2020), as epidemiological and clinical data showed that elderly women and those individuals with lower cognitive functioning are at higher risk for the development of late-onset OC symptoms (Dell'Osso et al., 2017; Prouvost, Calamari, & Woodard, 2016). Even women during all pregnancy phases should be monitored for psychological wellbeing and distress regarding excessive contamination fears during the Covid-19, since basically they are at greater risk for OCD, compared to the general female population, with an aggregate risk ratio of 1.79 (Fawcett et al., 2013). During pregnancy, contamination fears and even intrusive thoughts and images of intentional harm to infants may be frequent (Lawrence, Craske, Kempton, Stewart, & Stein, 2017). We consider healthcare professionals another high-risk group for excessive contamination fears, because they are constantly exposed to contamination risk and to cope with the traumatic effects of the Covid-19 outbreak (deaths of sick patients and colleagues). This group may also suffer from a high sense of responsibility regarding contaminating their relatives, a potential risk factor for OCD development.

For all the above-mentioned populations, early signs of OC symptoms should be early identified to implement timely intervention and prevention strategies. Some authors (Fontenelle & Yücel, 2019) proposed a staging model of OCD where ultra-high risk is based upon sub-threshold symptoms (i.e., a total Y-BOCS score, the gold standard scale to assess OCD symptom severity, in the 1-13 range) and the presence of a positive family history of OCD or tics. To develop early approaches, a key ingredient is the knowledge of early predictors of OC symptoms in community people (Brakoulias, Perkes, & Tsalamaniotis, 2018). According to cognitive models and meta-analytical evidence in adults, children/adolescents and pregnant women, obsessive beliefs including perfectionism/intolerance of uncertainty, inflated sense of responsibility, threat overestimation, importance/control of thoughts may act as specific risk and maintenance factors of OC symptoms (Pozza, Albert, & Dettore, 2019; Pozza & Dettore, 2014; Salkovskis, 1985). It may be hypothesized that some of them, i.e. threat overestimation, intolerance of uncertainty and inflated sense of responsibility for causing/not preventing Covid-19 contagion, might even play a stronger role in the current dramatic emergency.

Other cognitive constructs (e.g., measures of anxiety sensitivity, not just-right experience, inferential confusion and propensity to deontological guilt) (Coles & Ravid, 2016; Ottaviani, Collazzoni, D'Olimpio, Moretta, & Mancini, 2019; Wheaton, Mahaffey, Timpano, Berman, & Abramowitz, 2012), or some family processes, such as the tendency to rely on proxy to access internal states or expressed emotion, i.e. hypercriticism and hostility (Zhang et al., 2017), already related to increased risk for OCD, should also be considered.

While the above-mentioned vulnerability/maintenance factors may be assessed and monitored through screening programs in vulnerable groups, protective factors should also be taken into account. As shown by some meta-analyses, social support and marital adjustment seem to represent a sort of

protective factors against the onset/exacerbation of OC symptoms during quarantine (Palardy, El-Baalbaki, Fredette, Rizkallah, & Guay, 2018). Similarly, other health-related variables may show a positive impact on dysfunctional contamination fears, such as health literacy and other healthy, albeit currently limited behaviours, i.e., walking, correct eating habits, lack or reduction of cigarette smoking or substance abuse (Pozza, Ferretti, & Coluccia, 2019).

Some prevention strategies may be helpful during the Covid-19 outbreak when contacts with clinicians is expected to be less frequent or even impossible. A large body of evidence demonstrated that cognitive behavioural therapy (CBT) administered through health technologies, i.e. telephone, web-cameras and smartphone apps, may produce great benefits on a variety of OCD-related outcomes including intrusive thoughts, compulsive behaviours, symptom awareness, obsessive beliefs, quality of life and depressive features (Dettore, Pozza, & Andersson, 2015). This modality of delivering CBT is cost-effective and has the advantage of reaching a large number of people; it may be particularly helpful as prevention/early intervention strategy for individuals with sub-threshold symptoms and those vulnerable to OCD onset. Health technology-based CBT may promote psychoeducation which can increase the awareness of the individual on the cognitive-behavioural vicious cycles of OCD in order to prevent catastrophic meta-worry capable to worsen symptoms (Barcaccia et al., 2019).

Conversely, it is well-established that perceived social stigma, shame and fear of negative evaluation can contribute to worsen OC symptomatology in chronic patients (e.g., Durna et al., 2019). Paradoxically, this dramatic emergency might hypothetically be useful to reduce social stigma among patients with a full diagnosis of chronic OCD, as almost everybody now adopts frequent and almost ritualistic hand washing, social distancing or other hygiene measures

In conclusion, the Covid-19 outbreak represents a stressful life event with a potential impact on people with vulnerability to OCD or in those patients with sub-threshold OC symptoms, or who achieved recovery after a successful treatment. Strict movement restrictions and hygiene habits are essential to limit Covid-19 diffusion and delay its progression. However, the occurrence of dysfunctional, clinically relevant contamination fears may be the downside highlighting the importance of a more comprehensive knowledge on the vulnerability factors of OCD in order to inform policy making and risk communication on one hand, early identification and prevention on the other one.

References

- Barcaccia, B., Baiocco, R., Pozza, A., Pallini, S., Mancini, F., & Salvati, M. (2019). The more you judge the worse you feel. A judgemental attitude towards one's inner experience predicts depression and anxiety. *Personality and Individual Differences, 138*, 33-39. doi: 10.1016/j.paid.2018.09.012
- Brakoulias, V., Perkes, I. E., & Tsalamaniotis, E. (2018). A call for prevention and early intervention in obsessive-compulsive disorder. *Early Intervention in Psychiatry, 12*, 572-577. doi: 10.1111/eip.12535
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The Lancet, 395*, 912-920. doi: 10.1016/S0140-6736(20)30460-8

- Chacon, P., Bernardes, E., Faggian, L., Batistuzzo, M., Moriyama, T., Miguel, E. C., & Polanczyk, G. V. (2018). Obsessive-compulsive symptoms in children with first degree relatives diagnosed with obsessive-compulsive disorder. *Brazilian Journal of Psychiatry, 40*, 388-393. doi: 10.1590/1516-4446-2017-2321
- Coles, M. E., & Ravid, A. (2016). Clinical presentation of not-just right experiences (NJREs) in individuals with OCD: Characteristics and response to treatment. *Behaviour Research and Therapy, 87*, 182-187. doi: 10.1016/j.brat.2016.09.013
- Dell'Osso, B., Benatti, B., Rodriguez, C. I., Arici, C., Palazzo, C., Altamura, A. C., ... & Lanzagorta, N. (2017). Obsessive-compulsive disorder in the elderly: a report from the International College of Obsessive-Compulsive Spectrum Disorders (ICOCS). *European Psychiatry, 45*, 36-40. doi: 10.1016/j.eurpsy.2017.06.008
- Dèttore, D., & O'Connor, K. (2013). OCD and cognitive illusions. *Cognitive Therapy and Research, 37*, 109-121. doi: 10.1007/s10608-012-9440-0
- Dèttore, D., Pozza, A., & Andersson, G. (2015). Efficacy of technology-delivered cognitive behavioural therapy for OCD versus control conditions, and in comparison with therapist-administered CBT: meta-analysis of randomized controlled trials. *Cognitive Behaviour Therapy, 44*, 190-211. doi: 10.1080/16506073.2015.1005660
- Fineberg, N. A., Dell'Osso, B., Albert, U., Maina, G., Geller, D., Carmi, L., ... & Hollander, E. (2019). Early intervention for obsessive compulsive disorder: An expert consensus statement. *European Neuropsychopharmacology, 29*, 549-565. doi: 10.1016/j.euroneuro.2019.02.002
- Fontenelle, L. F., & Yücel, M. (2019). A Clinical Staging Model for Obsessive-Compulsive Disorder: Is It Ready for Prime Time?. *EClinicalMedicine, 7*, 65-72. doi: 10.1016/j.eclinm.2019.01.014
- Lawrence, P. J., Craske, M. G., Kempton, C., Stewart, A., & Stein, A. (2017). Intrusive thoughts and images of intentional harm to infants in the context of maternal postnatal depression, anxiety, and OCD. *British Journal of General Practice, 67*, 376-377. doi: 10.3399/bjgp17X692105
- Mataix-Cols, D., de la Cruz, L. F., Nordsletten, A. E., Lenhard, F., Isomura, K., & Simpson, H. B. (2016). Towards an international expert consensus for defining treatment response, remission, recovery and relapse in obsessive-compulsive disorder. *World Psychiatry, 15*, 80-81. doi: 10.1002/wps.20299
- Ottaviani, C., Collazzoni, A., D'Olimpio, F., Moretta, T., & Mancini, F. (2019). I obsessively clean because deontological guilt makes me feel physiologically disgusted!. *Journal of Obsessive-Compulsive and Related Disorders, 20*, 21-29. doi: 10.1016/j.jocrd.2018.01.004
- Palardy, V., El-Baalbaki, G., Fredette, C., Rizkallah, E., & Guay, S. (2018). Social support and symptom severity among patients with obsessive-compulsive disorder or panic disorder with agoraphobia: A systematic review. *Europe's Journal of Psychology, 14*, 254-286. doi: 10.5964/ejop.v14i1.1252
- Pozza, A., Albert, U., & Dèttore, D. (2019). Perfectionism and intolerance of uncertainty are predictors of OCD symptoms in children and early adolescents: a prospective, cohort, one-year, follow-up study. *Clinical Neuropsychiatry, 16*, 53-61.
- Pozza, A., & Dèttore, D. (2014). Are inflated responsibility beliefs specific to OCD? Meta-analysis of the relations of responsibility to OCD, anxiety disorders, and depression symptoms. *Clinical Neuropsychiatry, 11*, 170-181.
- Pozza, A., Ferretti, F., & Coluccia, A. (2019). Perceived physical health in obsessive-compulsive disorder: a protocol for a systematic review and meta-analysis. *BMJ Open, 9*, e026261. doi: 10.1136/bmjopen-2018-026261
- Prouvost, C., Calamari, J. E., & Woodard, J. L. (2016). Does cognitive self-consciousness link older adults' cognitive functioning to obsessive-compulsive symptoms?. *Behaviour Research and Therapy, 85*, 23-32. doi: 10.1016/j.brat.2016.07.012
- Tibi, L., Van Oppen, P., van Balkom, A. J. L. M., Eikelenboom, M., Rickelt, J., Schruers, K. R. J., & Anholt, G. E. (2017). The long-term association of OCD and depression and its moderators: A four-year follow up study in a large clinical sample. *European Psychiatry, 44*, 76-82. doi: 10.1016/j.eurpsy.2017.03.009
- Wheaton, M. G., Mahaffey, B., Timpano, K. R., Berman, N. C., & Abramowitz, J. S. (2012). The relationship between anxiety sensitivity and obsessive-compulsive symptom dimensions. *Journal of Behavior Therapy and Experimental Psychiatry, 43*, 891-896. doi: 10.1016/j.jbtep.2012.01.001
- World Health Organization. WHO Director-General's Opening Remarks at the Media Briefing on COVID-19 - 11 March 2020. Who.Int, 11 Mar. 2020, www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19—11-march-2020. Accessed 01 April 2020.
- Wu, M. S., McGuire, J. F., Martino, C., Phares, V., Selles, R. R., & Storch, E. A. (2016). A meta-analysis of family accommodation and OCD symptom severity. *Clinical Psychology Review, 45*, 34-44. doi: 10.1016/j.cpr.2016.03.003
- Zhang, Z., Wang, M., Miao, X., Li, Y., Hitchman, G., & Yuan, Z. (2017). Individuals with high obsessive-compulsive tendencies or undermined confidence rely more on external proxies to access their internal states. *Journal of Behavior Therapy and Experimental Psychiatry, 54*, 263-269. doi: 10.1016/j.jbtep.2016.09.003