

TOWARDS A DEEPER UNDERSTANDING OF OBSESSIVE-COMPULSIVE DISORDER

Barbara Barcaccia and Francesco Mancini

Obsessive-Compulsive Disorder (OCD) has been ranked by the World Health Organization as one of the ten most handicapping illnesses by lost income and decreased quality of life (Veale 2007). It is well known that the disorder is not limited to one culture or one period of time, since it has been found in different cultures and in different parts of the world, with its basic characteristics transcending cultures and eras (de Silva 2006).

Even though the concept of “quality of life” (QoL) is complex and somewhat ambiguous (Barcaccia et al. 2013), it is certainly true that individuals with OCD experience very low life-satisfaction. Jacoby et al. (2014) highlighted the distinction between quality of life and functional impairment in Obsessive-Compulsive Disorder, considering QoL as more connected with subjective well-being, and functional impairment more linked to objective indicators of dysfunction. Thus QoL can entail the subjective experience of lack of satisfaction and enjoyment in relation to different life activities, and cannot be measured using exclusively quantifiable indicators (such as annual income). Functional impairment can instead be quantified, referring to precise difficulties in performing work, social and leisure activities, due to psychological symptoms. And sadly, OCD can wreak havoc in interpersonal relationships, leading to marital discord, separation and divorce, and can interfere heavily with an individual’s ability to study or work (Veale 2007). Indeed many obsessive-compulsive patients are unable to work, or are underemployed, have problems in performing household tasks, have impaired social and marital relations. Bobes et al. (2001) showed that the QoL in OC patients was worse than that of the depressed, schizophrenic, and heroin-dependent patients.

Unfortunately the impact of the disorder is not limited to the patients’ suffering, but extends significantly to the family members, and the level of family distress has been found higher than that of individuals with depression or with anxiety disorders (Fineberg et al. 2013).

According to The Diagnostic and Statistical Manual of Mental Disorders (5th ed., DSM American Psychiatric Association 2013), suicidal thoughts are present in half the individuals with OCD, and 25% of patients have attempted suicide at some point in their lives. Comorbidity with Major Depressive Disorder increases this risk.

Besides all this, there are the economical costs, not only the direct ones, regarding pharmacological and psychological therapies, but also those costs due to, e.g., inability to work (Abramowitz 2006).

Despite being today a curable disorder, still some obsessive-compulsive patients are “treatment resistant”.

Moreover there is generally a long delay between the onset of OCD and treatment being received. Heyman et al. (2006) noted that shame and secrecy associated with the onset of the disorder, along with the lack of recognition of its characteristic symptoms, cause delay (10-15 years) in diagnosis and treatment. Patients report stigma-related reasons for not seeking help, such as shame and fear of discrimination (Andersson et al. 2015). During this time, patients who suffer from OCD endure disruption within their functioning in all the important areas of life.

For all these reasons, it is very important that new effective psychotherapy’s techniques are designed and integrated into treatment, and that information on the disorder and its treatment is disseminated among both health professionals and the public. We need other effective strategies to treat the disorder, since not all patients benefit from the available therapies, and a considerable number of individuals with OCD refuse to undergo Exposure and Response Prevention (E/RP).

It is therefore fundamental to develop therapies that may be used when first-line treatments have been ineffective or have been refused by patients. But in order to do so, both theoretical and applied research on the functioning mechanisms of OCD is pivotal.

The EABCT special interest group (s.i.g.) on Obsessive-Compulsive Disorder, chaired by Barbara Barcaccia, and created on the initiative of Francesco Mancini and Antonio Pinto, has been working for four years now, allowing many experts in the field of OCD to meet, exchange ideas and collaborate. In the course of the Fourth EABCT meeting on OCD, held in Assisi in May 2014, organized by Scuola di Psicoterapia Cognitiva (SPC), sponsored by the Italian Association for Cognitive and Behavioural Therapy (SITCC), under the aegis of the European Association of Behavioural and Cognitive Therapies (EABCT), many outstanding papers have been presented.

We are pleased to present this number of *Clinical Neuropsychiatry*, containing a selection of those papers and other contributions relevant to the understanding and treatment of Obsessive-Compulsive Disorder.

We wish to thank all the authors, and Antonio Pinto, EABCT board member and promoter of this initiative within EABCT. We are deeply grateful to the Scientific Committee of the EABCT meetings, composed by Reuven Dar and Marcel van den Hout, for their invaluable contribution.

All the readers are invited to attend the Fifth EABCT Meeting on Obsessive-Compulsive Disorder, which will be held in Rome in 2016. Further information will be provided in due course on the APC website [www.apc.it](http://www.apc.it)

## Presentation of the articles

In the paper *Psychiatric symptoms as pathogens*, Marcel van den Hout proposes a very interesting perspective on mental disorders, considering symptoms as “input” that causally contributes to other symptoms, and not as “output” from underlying dysregulation. Fresh mathematical methods and empirical data come from network analyses, derived from physics. These network approaches, treating symptoms as input, converge with work in cognitive-behaviour therapy and in experimental psychopathology, and this convergence is illustrated with experimental work on Obsessive Compulsive Disorder. Van den Hout argues and demonstrates that data and concepts from network theory provide a sound conceptual rationale for treating symptoms as input and that network theory, cognitive-behaviour therapy and experimental psychopathology are intellectual allies, reinforcing each other.

Eyal Kalantrouff, Amir Avnit, Chen Aslan and Avishai Henik, in their article *Inhibiting Doubt and Uncertainty: Integrating Behavioral and Cognitive Models in Obsessive-Compulsive Disorder*, propose an integrative approach on the genesis and maintenance of Obsessive-Compulsive disorder: cognitive approaches focus on the role of cognitive biases in the onset and maintenance of OCD, with increased doubts and memory uncertainty being primary factors, while behavioural approaches focus on executive dysfunctions, with inhibitory deficit being most prominent. The authors review previous literature on the presence and role of inhibitory deficits, increased doubts, and memory uncertainty in OCD, followed by evidence suggesting that these factors are highly interrelated, and propose that both inhibitory deficits and increased doubts serve as prominent components of OCD.

Kristen Hagen, Stian Solem, Tor Ketil Larsen, Inge Joa, Gerd Kvale and Bjarne Hansen present a study on OCD in patients with first-episode psychosis. In their paper *Obsessive compulsive disorder (OCD) in patients with first-episode psychosis (FEP): A prospective study*, two hundred and forty six FEP-patients who were consecutively referred to a special unit for psychosis, were screened for psychosis as well as comorbid diagnoses at admission. The authors compared, one year after the first psychotic episode (FEP), changes in a) psychotic symptoms and b) global functioning and global symptoms (GAFs) in patients with and without comorbid OCD. Even though there were no differences between the groups in psychotic symptoms or general functioning at admission, patients with comorbid OCD showed significantly less improvement in global function and symptom level from inclusion to one-year follow-up, even when depression was controlled for. The findings suggest that comorbid OCD in FEP may be associated with a more negative course of GAF-F and GAF-S, even though the OCD-group responded adequately to the antipsychotic treatment.

In the article *Are inflated responsibility beliefs specific to OCD? Meta-analysis of the relations of responsibility to OCD, anxiety disorders, and depression symptoms*, Andrea Pozza and Davide Dettore present a study on the specificity of responsibility to OCD relative to anxiety disorders (AD) or depression (DEP). Using meta-analytic techniques the authors summarized cross-sectional data to examine: (a) whether stronger responsibility beliefs are related to OCD compared to AD or DEP symptoms in clinical and non-clinical samples; (b) whether OCD patients have stronger responsibility beliefs than AD patients; (c) potential moderators of the relation of responsibility to OCD symptoms. The findings

did not seem to confirm definitively the specificity of responsibility to OCD. Responsibility could be a transdiagnostic factor for psychopathology. The authors also discuss the implications for case-formulation and treatment. Causal inferences on the role of responsibility in OCD development cannot be made due to the cross-sectional nature of the analyzed studies. Pozza and Dettore suggest that further research with experimental designs should address whether changes in responsibility beliefs mediate OCD symptom changes during cognitive behaviour therapy targeting the responsibility domain.

In their paper *Predictors of sleep disturbances in treatment-seeking OCD-patients*, Håkon Nordahl, Audun Havnen, Bjarne Hansen, Lars-Göran Öst and Gerd Kvale investigate the prevalence of sleep disturbances in a sample of treatment-seeking patients with obsessive-compulsive disorder. In their study 123 patients were screened. 63 of them met diagnostic criteria for OCD and were further assessed with measures of sleep disturbances, obsessive-compulsive symptoms, depressive symptoms and metacognitive beliefs. The results showed that the sample was characterized by a high proportion of sleep problems, with 65 % of the patients having a PSQI global index indicative of insomnia. Sleep disturbances were significantly higher than in the normal population. A stepwise linear regression analysis showed that severity of compulsions explained the highest proportion of the variance in sleep disturbances, followed by depressive symptoms and negative metacognitive beliefs about uncontrollability of thoughts and danger. The data suggest impaired sleep to be influenced by OCD-symptoms. The authors also discuss possible clinical implications of their findings.

The article *Neurobiological mechanisms underlying abnormal processing of guilt, disgust and intentionality in Obsessive-Compulsive Disorder: a critical review*, by Barbara Basile and Francesco Mancini, provides neurobiological evidence on the cerebral mechanisms underlying guilt and disgust processing in OCD, also considering the neural aspects of motor intentionality. There is consistent clinical and experimental evidence showing that patients suffering from OCD are particularly sensitive to guilt and disgust emotions, with both contributing to the disorder's onset and maintenance. Further, OCD patients also show impairment in the ability to consciously control, or inhibit, specific behaviours, resulting in compulsive acting. In this review different imaging techniques have been considered, studying both functional and structural aspects of OCD brains. Overall, neuroimaging studies suggest that the Fronto-Parieto-sub-Cortical circuit, including both cortical and sub-cortical regions, as well as some inter-connecting fibers, is involved in OCD. Taken together, these findings show more frontal regions, extending to the insular cortices, to be involved, in action monitoring, error detection, decision making, and in guilt and disgust processing. On the other hand, the midbrain, including basal ganglia and extending to more parietal areas, is involved in movement selection, correction and inhibition, and in intentionality and social cognition. The authors believe these data might contribute in explaining the neurobiological substrate underlying some core aspects of OCD clinical manifestation, which does not necessarily rely upon a dysfunction of the central nervous system. According to Basile and Mancini, eventual OCD patients' hyper-functioning, in some core psychological processes, may affect their neuronal responses, contributing to the peculiarities observed in their brain.

In the position paper *Do we need a cognitive theory for Obsessive-Compulsive Disorder?*, Gideon E. Anholt and Eyal Kalantrouff maintain that executive

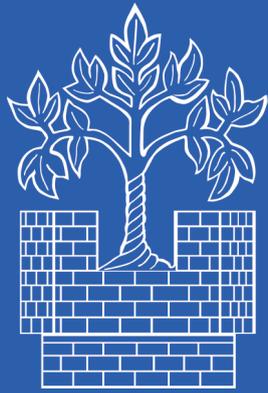
dysfunctions and particularly response inhibition deficits are fundamental determinants in the genesis and maintenance of Obsessive-Compulsive Disorder, as opposed to the components suggested by cognitive theories. According to the latter, catastrophic (mis) interpretations of normally occurring intrusive thoughts are causal to the onset and maintenance of OCD. However, the authors suggest that various research findings challenge basic premises of the cognitive theory. Furthermore, results of clinical trials investigating cognitive and behavioural therapies for OCD challenge the added value of cognitive interventions over and above behaviour therapy consisting of exposure and response prevention (ERP) for OCD. It is maintained that there is a need to search for alternative theories to improve OCD understanding and treatment, and executive functions are suggested as a potential alternative research route.

Francesco Mancini and Barbara Barcaccia respond to Anholt and Kalanthroff with their position paper *Do we need a cognitive theory for Obsessive-Compulsive Disorder? Yes, we do*. The authors criticise a trend in psychiatry and clinical psychology, claiming to explain mental illness and Obsessive-Compulsive Disorder (OCD) in particular, as a neurological disease. They rebut this perspective on OCD and show how an Appraisal Theory (AT) of the disorder is necessary and sufficient in order to account for proximal determinants in the genesis and maintenance of OC symptomatology. In the first part of the paper Mancini and Barcaccia rebut seven arguments against AT, while in the second part they answer two questions: 1) Are goals and beliefs necessary for OC symptoms? 2) Are goals and beliefs sufficient for OC symptoms? In the third part they answer three more questions: 1) Are cognitive deficits necessary for OC symptoms? 2) Are cognitive deficits sufficient for OC symptoms? 3) Do cognitive deficits really exist or are they better accounted for as cognitive biases? On the basis of this analysis goals and beliefs result to be necessary and sufficient as proximal determinants of OCD, whereas cognitive deficits appear neither necessary nor sufficient. Those symptoms which in OCD might look as cognitive

deficits, are much better accounted for by cognitive biases: distress caused by obsessional intrusions leads to a particular way of processing information, due to the person's goals and beliefs, therefore determining motivated and goal-oriented attempts at solution.

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