

UNWANTED INTRUSIVE COGNITIONS IN THE OBSESSIVE-COMPULSIVE SPECTRUM DISORDERS: AN ANALYSIS IN CLINICAL SAMPLES

María Roncero, Amparo Belloch, Conxa Perpiñá, Gertrudis Fornés and Gemma García-Soriano

Abstract

Objective: The Obsessive-Compulsive Spectrum consists of a group of disorders that have high comorbidity with the obsessive-compulsive disorder (OCD) and share some clinical and other features. Although there is a lack of agreement about which disorders should be included in the OC-spectrum, several authors consider that eating disorders (ED), and especially Anorexia Nervosa (AN), are firm candidates for the spectrum. Unwanted intrusive thoughts, urges, and repetitive behaviors (UIT) could be one of the psychopathologies shared by the OC-spectrum disorders, since they are the basis of OCD symptoms and also commonly experienced by ED patients. To examine the characteristics of UITs experienced by OCD and AN patients.

Method: Sixty-one OCD and 34 AN Restrictive subtype patients completed a self-report measure designed to assess UITs with obsessional contents (OCD patients) and with eating disorder related contents (AN patients), and the dysfunctional appraisals and control strategies related to the most upsetting UIT experienced in the past three months.

Results: Both the OCD and AN patients experienced their UIT with comparable frequency, and these intrusions induced similar negative emotional consequences, control difficulties, dysfunctional appraisals, and thought control strategies. Nonetheless, OCD patients scored higher on dysfunctional beliefs of responsibility, importance of UIT control, and overestimation of threat associated with the UIT, and also on the frequency of using some strategies to control the unwanted cognition.

Conclusions: The propensity to experience UITs, their emotional consequences, and the tendency to appraise them in a dysfunctional way are shared by OCD and AN, although some differences also emerged among patients having one of the two disorders. The role of UITs as a transdiagnostic variable in the OC-spectrum warrants further investigation.

Key words: obsessive-compulsive spectrum, eating disorders, unwanted intrusive thoughts, anorexia nervosa

Declaration of interest: none

M. Roncero¹, A. Belloch¹, C. Perpiñá^{1,2}, G. Fornés¹, & G. García-Soriano¹

1University of Valencia. Avda. Blasco Ibáñez, 21, 46010-Valencia. Spain

2 CIBER Fisiopatología Obesidad y Nutrición (CIBERObn), Instituto Salud Carlos III, Spain

Corresponding author

María Roncero

Departamento de Personalidad, Evaluación y Tratamientos Psicológicos. Facultad de Psicología.

Avda. Blasco Ibáñez, 21, 46010-Valencia. Spain

E-mail: maria.roncero@uv.es

Introduction

Since Palmer and Jones (1939) pointed out that Anorexia Nervosa was a manifestation of a compulsive neurosis, numerous studies from different perspectives have focused on the relationship between Eating Disorders (ED) and Obsessive Compulsive Disorder (OCD), looking for both common personality features and common biological factors, including genetic ones. More recently, some authors (e.g., Hollander et al. 2008) proposed that ED and, especially, Anorexia Nervosa (AN) are among the so-called Obsessive-Compulsive spectrum disorders, a group of disorders that occur with high comorbidity in OCD and share some clinical

features and other associated variables. In fact, there is some evidence that OCD and AN share some core psychopathological features. For instance, it has been suggested that these two conditions are phenotypical presentations of the same genetic diathesis (Milos et al. 2002), related to a hypothetical compulsive-impulsive continuum characterized by intrusive cognitions, impulses and/or urges, and ritualized behaviors that vary in their intentionality and functional value. In spite of this, few studies have examined the commonalities between the two disorders on the basis of their hypothetical shared cognitive products and their functional value. In fact, the majority of the studies that postulate similarities between OCD and ED are based on comorbidity from

a syndrome perspective, demonstrating a high presence of OCD among ED patients (Kaye et al. 2004, Speranza et al. 2001).

From a cognitive perspective, several studies have analyzed the presence of beliefs and thought control strategies typically found in OCD patients in patients with ED (Freid 2007, Lavender et al. 2006, Roncero et al. 2011). These metacognitions arise from a modality of dysfunctional thinking, the so-called unwanted intrusive thoughts, images or impulses (UITs), which have been characterized as repetitive, unacceptable or undesirable, difficult to diminish and maintain under control, and highly interfering with ongoing activities (Clark 2005, Rachman 1981). The UITs have been studied mainly in OCD, although they have also been found in other mental disorders, such as post-traumatic stress disorder (Michael et al. 2005), depression (Morillo et al. 2007, Wenzlaff 2005), insomnia (Harvey 2000), generalized anxiety disorder (Clark and Rhyno 2005) and ED (Perpiñá et al. 2011), with contents related to the specific concerns of the different disorders. In the case of ED, both patients and people at risk of suffering an ED experience recurrent, intrusive, and automatic cognitions in the form of thoughts, images and impulses about food, diet, physical exercise and appearance (Cooper et al. 2004, Cooper et al. 2006, Perpiñá et al. 2011). These cognitions have been identified as a relevant factor in the maintenance of ED (Cooper et al. 2009), and as a definite characteristic of obsessions in the case of OCD.

Summing up, although OCD and ED are different clinical disorders, further examination reveals similar cognitions and behaviors. Both OCD and ED patients experience repetitive thoughts and preoccupations about feared stimuli and/or situations, which are then followed by compensatory behaviors, such as checking, ordering or washing in OCD, and restriction, bingeing or compulsive exercise in ED. These behaviors are aimed to decrease the negative affective state associated with the core fear. Nonetheless, there remains a need to further clarify the commonalities and differences between the two disorders in these apparently shared symptoms, as well as their role in the genesis and/or maintenance of the disorder itself. The objective of this study was to compare the Obsessive Intrusive Thoughts (OIT) reported by OCD patients with the Eating Disorder Intrusive Thoughts (EDIT) reported by Anorexia Nervosa (AN) patients. Specifically, we sought to compare the frequency, emotional consequences, control difficulties, evaluative appraisals, and thought control/neutralizing strategies of these two types of cognitive intrusions.

Method

Participants

In all, 95 adult individuals participated in the study. Of them, 61 were OCD patients, and 34 were AN-Restrictive type patients (AN-R).

The OCD patients had a primary Axis I DSM-IV-R (APA 2000) diagnosis of OCD, 49.2% were women, and their mean age was = 35.23 ($SD=12.6$) years. On average, the OCD patients had a severe disorder (Yale-Brown Obsessive Compulsive Scale-total, Y-BOCS, $M = 25.7$; $SD = 6.7$), and the mean duration of their disorder was 9.36 ($SD = 8.9$) years. None of the patients presented a comorbid ED.

The AN-R group included 34 women (mean age: 27.18; $SD=10.11$). They had a mean Body Mass Index of 16.03 ($SD = 1.41$). The mean duration of their disorder was 8.6 years ($SD=8.2$), and the severity following the Eating Attitudes Test (EAT, Garner and Garfinkel 1979) was 32.6 ($SD=16.3$). None of the patients presented a comorbid OCD.

Measures

Obsessive Intrusive Thoughts Inventory (Inventario de Pensamientos Intrusos Obsesivos, INPIOS) (García-Soriano et al. 2011, García-Soriano & Belloch 2013). This is a self-report questionnaire designed to assess the frequency of unwanted obsessional intrusive thoughts, images and impulses (OIT), as well as the appraisals and control strategies associated with each participant's most upsetting intrusive thought. The first section consists of a list of 48 items. Respondents rate each statement on a 7-point scale from 0 ("I have never had this intrusion") to 6 ("I have this intrusion frequently during the day"). The second part of the INPIOS asks participants to choose from the 48 items the most upsetting OIT they had experienced during the past three months. Based on their most upsetting OIT, individuals evaluated the OIT across several dimensions, using a 5-point scale ranging from 0 "not at all" to 4 "extreme". The scale included: (a) the emotional reactions linked to the OIT recorded (i.e., unpleasantness, anxiety, sadness, guilt, and shame); (b) the difficulty in controlling the OIT and the interference it produces (i.e., difficulty of controlling it success controlling/ suppressing (reverse scored), and interference); and (c) the dysfunctional appraisals associated with the OIT (i.e., importance of the thought, thought-action fusion-moral, personal significance, thought-action fusion-probability, responsibility, importance of control, over-estimation of threat, and intolerance to uncertainty). Finally the participant records how often he/she has used a list of 19 control and/or neutralizing strategies to get rid of the intrusion chosen as the most upsetting one: cognitive/covert distraction, behavioral/overt distraction, covert compulsions, behavioral/overt compulsions (cleaning, checking, repeating, ordering), cognitive/covert restructuring, reappraisal, reassurance-others, self-reassurance, stop thinking, do nothing, relaxation, self-punishment, avoidance, suppression efforts, worry, efforts to control.

Eating Intrusive Thoughts Inventory (Inventario de Pensamientos Intrusos Alimentarios, INPIAS; Perpiñá et al. 2011). This self-report questionnaire was developed based on the previous INPIOS, and it shares the same structure. Part 1 evaluates the frequency on a 7-point scale from 0 ("I have never had this intrusion") to 6 ("I have this intrusion frequently during the day") with which 50 unwanted Eating Disorder-related Intrusive Thoughts, images and impulses (EDITs) were experienced during the past three months, related to dieting, body appearance, and the need to do exercise. On INPIAS Part 2, as on the INPIOS, participants were required to select from the previous list the single most upsetting EDIT they had experienced during the past 3 months. Items on Part 2 are identical to those on the INPIOS, with the only difference being two extra control strategies on the INPIAS ("Doing what the unwanted thought tells me" and "Avoiding the things, places or people that arouse this thought in me"). These two latter strategies are not included in this study.

Procedure

Participants were recruited from the Research Unit for Obsessive-Compulsive and Eating Disorders of the Universidad de Valencia (Spain) and outpatient mental-health clinics in the Spanish National Health System. Before being included, all potential participants were individually screened with a full history and examination by one of the authors, who are Ph.D. level Clinical Psychologists and have several years of experience conducting diagnostic evaluations in clinical settings. Then patients were informed about the study's purpose and assessment procedure. After the patient had given his or her explicit informed consent to participate in the study, an individualized, face-to-face administration of the INPIOS (OCD participants) and INPIAS (ED participants) was carried out. The study received the approval of the Universidad de Valencia and the outpatient mental-health clinics' ethics committees.

Results

The AN-R patient group was younger ($t(93) = 3.19$, $p < .002$) and included more women ($X^2(1) = 99.98$, $p < .001$) than the OCD group.

Table 1 shows the results of the differences between the OCD and AN-R groups in their scores on the INPIOS and INPIAS questionnaires. Regarding the main intrusion (OIT vs. EDIT) reported by the two groups of patients, there were no significant differences in the frequency with which the intrusion was experienced, which was rated on average as "very often, almost daily", or in the negative emotional reactions subjects experienced as a consequence of having the intrusion. The degree of interference and the difficulty in controlling this most upsetting intrusion reported by the patients were similar in both groups.

Regarding the patients' appraisals of their main intrusions, no differences between groups were observed, with the exception of thought-action fusion-moral, responsibility, importance of control, and overestimation of threat (largest Cohen's effect size), with the OCD patients scoring higher on these appraisals. Moreover, although the difference did not reach statistical significance, the only appraisal on which the AN-R group scored higher was the personal meaning that the intrusion has for the individual.

Finally, concerning the strategies used by the patients to manage their main intrusion, significant differences were only observed on repeating (largest Cohen's effect size) and covert compulsions, with higher scores obtained by the OCD patients, and on cognitive distraction and ordering, with higher scores reported by AN-R patients.

Discussion

The aim of the present study was to compare the intrusive thoughts of patients with different diagnoses, OCD and AN-R. More specifically, the purpose was to analyze the frequency, interference, emotional reaction, appraisals and control strategies associated with the intrusion that the patients with OCD and AN-R consider the most upsetting. The results showed that both groups of patients experienced an unwanted intrusion related to the content of their specific disorder almost daily. The intrusions produced interference and disrupted their ongoing activity, and both OCDs and AN-R patients experienced similar difficulties in controlling them.

These data agree with those from studies reporting intrusive thoughts not only in OCD patients, but also in patients with other mental disorders, such as ED (Perpiñá et al. 2011, Rawal et al. 2010).

In the two groups of patients, the unwanted intrusions produced a comparable degree of negative affect, interfered similarly with daily activities, were equally difficult to maintain under control, and were assessed in a similarly dysfunctional way. These results support the notion that these cognitions can be properly considered as unwanted intrusive thoughts, images or impulses, as defined by Clark (2005) and Rachman (1981).

Consistent with current cognitive conceptualizations about both OCD and AN-R, the experience of unwanted cognitive intrusions has several important effects in patients with these disorders, both in terms of dysfunctional appraisals and regarding strategies aimed to control the discomfort that the intrusion generates: the patients consider that the mere presence of an intrusive thought is important in itself, that having the intrusion reveals something negative about them and increases the uncertainty about them or their future, and that merely experiencing the intrusion increases the probability that a negative event is going to occur. This latter appraisal, which has been termed "thought-action fusion", is common in OCD, but also in ED. Shafran et al. (1999) used the term "Thought-Shape fusion" to reflect beliefs that merely thinking about foods considered "forbidden" leads to the individual feeling heavier. Finally, there were no differences between the two patient groups in the majority of strategies used to control their respective most upsetting intrusion.

Nonetheless, as expected, the results also showed some significant differences between OCD and AN-R patients. Especially important was the fact that OCD patients assessed their intrusive cognitions more dysfunctionally than AN-R patients, in terms of considering that having the intrusion is morally equivalent to forbidden actions, that when having the intrusion they are responsible for preventing any negative consequence related to it, that they must be able to fully maintain their unwanted thoughts under control and, with the largest effect size, that the probability or severity of harm and threat associated with the intrusion is quite high. Moreover, there were also differences in the control strategies for the intrusions. While OCD patients used repeating rituals and covert compulsions more often, ED more frequently used cognitive distraction, which has been described as a more adaptive thought control strategy (Morillo et al. 2007), and "ordering", a strategy that in other studies was a "distinctive" strategy in women compared to men (Perpiñá et al. 2008).

Summing up, the propensity to experience unwanted intrusions, suffer emotional consequences, appraise them in a dysfunctional way, and try to manage them is common to OCD and AN. The intrusions (OIT and EDIT) produce, on the one hand, similar dysfunctional appraisals and control strategies, which questions their specificity to OCD. On the other hand, there is also a set of dysfunctional appraisals and control strategies that seem to be more specific to OCD patients, whereas others are more endorsed by AN-R. It is possible that the differences in some of the consequences that unwanted intrusions have for OCD and AN-R patients are mediated by the personal value subjects ascribe to these intrusions. Results reported by Belloch et al. (2012) support these assumptions. These authors found that obsessional intrusive thoughts were assessed as more egodystonic than eating-related intrusive thoughts

Table 1. Differences between OCD and AN-R groups on INPIOS and INPIAS

| INPIOS/ INPIAS variables | OCD | AN-R | <i>t</i> (<i>df</i>) | <i>Cohen' d</i> |
|--|-------------|-------------|------------------------|-----------------|
| Frequency | 5.26 (0.91) | 5.29 (0.94) | -0.16 (93) | -.032 |
| <i>Emotional consequences</i> | | | | |
| Unpleasantness | 3.67 (0.67) | 3.44 (0.66) | 1.61 (93) | .345 |
| Anxiety | 3.11 (0.95) | 3.00 (0.98) | 0.56 (93) | .113 |
| Sadness | 2.23 (1.39) | 2.74 (1.31) | -1.73 (93) | -.377 |
| Guilty | 2.28 (1.45) | 2.41 (1.33) | -0.44 (93) | -.093 |
| Shame | 2.15 (1.41) | 2.38 (1.34) | -0.79 (93) | -.167 |
| <i>Interference and Control</i> | | | | |
| Control difficulty | 3.15 (0.93) | 3.32 (0.81) | -0.93 (93) | -.193 |
| Successful controlling | 0.98 (0.81) | 0.91 (0.83) | 0.41 (93) | .085 |
| Interference | 2.92 (1.01) | 2.65 (1.18) | 1.14 (93) | .236 |
| <i>Dysfunctional appraisals</i> | | | | |
| Importance of thought | 3.00 (1.12) | 2.82 (0.90) | 0.78 (93) | .177 |
| TAF-Moral | 2.44 (1.57) | 1.82 (1.38) | 1.92 (93)* | .41 |
| Personal meaning | 1.72 (1.45) | 2.06 (1.25) | -1.14 (93) | -.251 |
| TAF-Probability | 1.66 (1.41) | 1.88 (1.53) | -0.73 (93) | -.149 |
| Responsibility | 2.85 (1.22) | 2.00 (1.39) | 3.10 (93)** | .649 |
| Importance of control | 3.39 (0.82) | 2.65 (1.12) | 3.40 (52.990)*** | .753 |
| Overestimation threat | 2.48 (1.37) | 1.29 (1.19) | 4.20 (93)*** | .927 |
| Intolerance uncertainty | 3.02 (1.18) | 2.71 (1.09) | 1.27 (93) | .272 |
| <i>Control and neutralizing strategies</i> | | | | |
| Covert Distraction | 1.59 (1.32) | 2.29 (1.14) | -2.61 (93)** | -.567 |
| Behavioral Distraction | 1.92 (1.38) | 2.18 (1.44) | -0.86 (93) | -.184 |
| Covert compulsions | 2.11 (1.62) | 1.53 (1.24) | 1.97 (84.153)* | .402 |
| Cleaning | 1.30 (1.69) | 1.32 (1.39) | -0.09 (79.966) | -.012 |
| Checking | 1.75 (1.69) | 1.65 (1.35) | 0.34 (81.756) | .065 |
| Repeating | 2.11 (1.69) | 0.85 (1.10) | 4.38 (90.601)*** | .883 |
| Ordering | 0.67 (1.26) | 1.29 (1.38) | -2.23 (93)* | -.469 |
| Covert restructuring | 2.43 (1.37) | 2.32 (1.15) | 0.37 (93) | .086 |
| Reappraisal | 1.74 (1.36) | 1.47 (1.33) | 0.92 (93) | .200 |
| Reassurance-others | 1.85 (1.58) | 1.85 (1.35) | -0.001(93) | 0 |
| Self-reassurance | 2.41 (1.41) | 1.88 (1.20) | 1.84 (93) | .404 |
| Stop thinking | 2.39 (1.39) | 2.71 (1.24) | -1.09 (93) | -.242 |
| Do nothing | 1.05 (1.39) | 1.09 (1.24) | -0.14 (93) | -.030 |
| Relaxation | 1.95 (1.44) | 1.65 (1.37) | 1.02 (93) | .213 |
| Self-punishment | 1.90 (1.47) | 2.32 (1.34) | -1.38 (93) | -.298 |
| Avoidance | 2.59 (1.33) | 2.18 (1.42) | 1.41 (93) | .298 |
| Suppression efforts | 2.54 (1.38) | 2.21 (1.15) | 1.27 (79.457) | .259 |
| Worry | 1.25 (1.31) | 1.76 (1.26) | -1.87 (93) | -.396 |
| Efforts to control | 2.51 (1.41) | 2.21 (1.15) | 1.13 (80.462) | .233 |

Data are Mean (SD). * $p < .05$; ** $p < .01$; *** $p < .001$. INPIOS: Obsessive Intrusive Thoughts Inventory; INPIAS: Eating Intrusive Thoughts Inventory; OCD: Obsessive-Compulsive Disorder; AN-R: Anorexia Nervosa-Restrictive type; TAF: Thought-Action Fusion.

in a large sample of non-clinical adults who completed both the INPIAS and the INPIOS. Moreover, Roncero et al. (2013) reported, in a sample of ED patients, that the more interference an eating-related intrusion caused, the more ego-syntonic and the less ego-dystonic it was, and that when the intrusions were assessed as ego-syntonic, patients tried to do what they indicated. The ED provides the person with a sense of identity, and some AN patients have even “claimed” their disorder as a choice or lifestyle (Bulik and Kendler 2000). In contrast, obsessions of OCD patients are posited as being contrary to, or inconsistent with, a person’s sense of self: core values, ideals, and moral attributes (Clark 2005).

The present study has some limitations. A larger number of patients need to be recruited. Future studies should include a greater range of ED diagnosis types (including purgative types), in order to establish a psychopathological characterization at the level of EDIT, according to the subtype diagnosis. Moreover, further analysis must be devoted to studying the comparison of OIT and EDIT simultaneously in the same patient, in order to conduct within- and between-group comparisons.

To conclude, we think the study provides support for the notion that unwanted intrusive cognitions might be considered a transdiagnostic variable, which could explain some of the commonalities in the clinical features observed between patients with OCD and AN-R, two disorders with more comorbidity than might be expected, based on their characterization as different syndromes.

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