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Individual cognitive psychotherapy of OCD

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Clinical case

SUMMARY

This is a presentation of a case study in which cognitive psychotherapy was applied to a patient with Obsessive Compulsive Disorder who had intrusions of contamination and doubt with washing and checking rituals. The treatment is based on the cognitive model of OCD, which proposes that the biases through which the intrusive ideas are assessed are the primary factor in maintaining the disorder. The interventions that derive from it include psycho-education and cognitive techniques to make these biases more flexible. The assessment of post-treatment results showed a moderate improvement in symptoms, a marked increase in flexibility of the biases, and a notable improvement in the patient's functionality.

Key words: OCD, biases, cognitive treatment.

RESUMEN

Se presenta un estudio de caso en el que se aplica psicoterapia cognitiva en un paciente con trastorno obsesivo compulsivo con intrusiones de contaminación y duda con rituales de lavado y verificación. El tratamiento se basa en el modelo cognitivo del TOC, que propone que los sesgos a través de los cuales se valoran las ideas intrusivas son el principal factor de mantenimiento del trastorno. Las intervenciones que de él se derivan incluyeron psicoeducación y técnicas cognitivas para flexibilizar esos sesgos. La evaluación de resultados post tratamiento mostró una mejoría moderada de los síntomas, una marcada flexibilización de los sesgos y una notable mejoría en la funcionalidad del paciente.

Palabras clave: TOC, sesgos, tratamiento cognitivo.

INTRODUCTION

Obsessive Compulsive Disorder (OCD) is a mental disorder characterized by two elements: obsessions (mental intrusions that generate anxiety) and compulsions (mental and/or behavioral intrusions intended to neutralize the appearance of the obsessions).[1] Sufferers experience great unease due to their obsessions, and invest a great deal of time in neutralizing rituals, which can bring about total or partial functional incapacity.[2] In epidemiological terms, it is considered the fourth most prevalent mental disorder, affecting between 1-2% of the general population.[3,4]

The appearance of OCD is associated with multiple problems. Between 65% and 80% of patients diagnosed with OCD will suffer a major depressive episode during their lifetime. There is a low perceived quality of life in those who suffer from OCD as well as major functional incapacity.[5]

Studies show that the time before seeking consultation ranges between six and 17 years after symptoms appear.[6,7] This delay could be due to guilt experienced about having obsessions,[8] lack of knowledge about the disorder, the absence of education on mental health among the population, lack of application of public plans for prevention and early detection, and the lack of professionals trained to recognize and treat OCD.

TREATMENTS

In the 1960s, Víctor Meyer developed a specific treatment for this type of disorder, called "exposure with response prevention" or ERP.[9] This treatment showed encouraging results, with an immediate response in 40% to 75% of patients to whom it was applied,[10] and it is currently the treatment specified for OCD with the highest number of efficacy studies.[11]

Despite the encouraging success in the use of ERP, the results are far from ideal. Some patients do not seem to benefit from the technique given that they did not show progress; they rejected the intervention due to an aversion to exposure (around 30%) or they only had intrusions without carrying out behavioral or mental rituals (around 10%).[12]

After the works of McFall and Wollersheim, cognitive techniques began to be incorporated into ERP, with the intention of increasing its efficacy.[13]

From that point there have been many cognitive models of OCD. Successive cognitive models of OCD have identi-

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fied that certain erroneous beliefs and assessments related to intrusive thoughts are involved in maintaining the disorder.

The obsessive compulsive cognition working group (O-CCWG) cognitive OCD model

The treatment applied to the patient is a recently published cognitive approach for OCD developed by Amparo Belloch under the name of O-CCWG.[15]

The treatment has an individual format and can also be applied in a group setting.[16]

This model stems from the evidence that the majority of people have intrusive thoughts (ITs). It is important to differentiate normal and everyday intrusions from obsessions, which can be defined as intrusions assessed in a negative and biased manner.[17]

Various studies on ITs in a non-clinical population demonstrate that the majority of the population have regular mental intrusions.[18,19] Similar studies have been replicated in countries such as Spain,[20] Korea,[21] and Turkey[22] with similar results.

When these normal intrusive thoughts are assessed in a negative and alarmist fashion, the person begins to suffer considerable anxiety and concern, and interpret the ITs as bad, dangerous, and something that must be dealt with. The rituals of the disorder have the effect of neutralizing the concern produced by the ITs. Once the anxiety is reduced by way of the ritual, the person feels momentarily relived, which negatively reinforces the ritualistic behavior and compounds the disorder.[23]

It therefore follows that it is important to intervene in the biased assessments patients make of their ITs. The object of the treatment is to identify the idiosyncratic biases of each patient in order to later intervene with various cognitive techniques.

The different cognitive models on OCD identified various biased assessments as responsible for dysfunctional interpretation (table 1).

"Obsession" is defined as mental intrusions that are negatively assessed through cognitive bias.

CASE PRESENTATION

The patient is a male, 46 years of age, married, with no children, educated to an average level. He refers to "always" having been obsessive, but he perceives the beginning of the disorder to be 20 years ago. The symptoms have intensified and reduced since then, but have always remained at a high level. He worked in a family property business for several years until he had to quit seven years ago because of his symptoms. In terms of personal relationships, he refers to a very troubled family relationship, describing his family as "very demanding", while reporting his attitudes towards them as completely passive. He advises that his father also suffered from symptoms of OCD. The patient did not present medico-clinical pathology and is at a medium socio-economic level. He has lived with his wife for at least 15 years in a city near to where the treatment was developed. He was referred from the Fundación Aiglé clinical assistance network through a recommendation from a family member.

At the time of referral he was not working or doing any activity other than dealing with his rituals, which took up a large part of his day and included keeping him up until the early hours of the morning or the following day.

When asked about pleasurable activities, the patient advised that he used to like abstract painting and that before the symptoms completely put a stop to it, he frequently painted, visited exhibitions, and participated in activities related to art and media studies.

His most prominent symptoms are:

Obsession with contamination: The patient expressed concern about contamination and dirtiness. The rituals that cancelled out the concern about dirtiness were cleaning himself and everything he touched with disposable wet wipes, of which he possessed an enormous quantity.

He also avoided touching anything which could make him dirty. This had led him to stopping marital contact with his wife, not even kissing her for fear of contamination.

In case of not knowing whether the object he was about to touch had been in contact with dirtiness, the patient assumed that: a) the object was dirty, b) the dirt was a contamination of the highest level, c) the dirt was extremely hazardous to his health, and d) the only way to avoid harm was to rigorously clean the contaminated item, or himself, should contact be unavoidable. All of this led the patient

Table 1. Bias glossary

1. Excessive responsibility	Feeling very responsible for everything that happens around you. Belief that one can cause and should prevent important negative events.
2. Overestimating the importance of thoughts	The mere presence of a thought signifies its importance.
3. Thought Action Fusion: Likelihood	Thinking something increases the likelihood that it will actually happen.
4. Thought Action Fusion: Moral	Bad thoughts are as bad as bad deeds.
5. Importance of controlling thoughts	One can and should be able to control their own thoughts.
6. Overestimation of danger	Exaggeration of the likelihood or seriousness of danger.
7. Intolerance of uncertainty	Difficulty with ambiguity, news, or unexpected change.
8. Perfectionism	There is a perfect solution for every problem, and solving it perfectly is possible and necessary. Any error will have serious consequences.

to think that should others be contaminated, he would be totally responsible for any possible catastrophe that the contamination could cause them.

Obsession with doubt: The patient showed obsessive doubts about certain types of questions related to the safety of his home. For example, he was bothered by thoughts about whether he had correctly shut off the gas on the heater, whether the windows were shut properly, or whether the curtains were at a safe distance away from the heater. The neutralizing rituals that corresponded to this consisted of carrying out a process of checking the entire house before going to bed, checking windows, bolts, stopcocks, etc.

The main concern was that something might happen to the house or to his wife and that he would be responsible for the tragedy for not having taken sufficient care.

Rituals with the computer: The patient showed the need to complete certain rituals when using the computer, specifically when playing online videogames, which he could not stop before reaching the maximum score. This could easily take him more than six hours. As the patient started playing at night, he could spend entire nights playing again and again until he achieved the desired result. In this behavior, there is a superposition between OCD and internet addiction, given that the patient had to play in a stereotypical and ritualistic way, winning in a certain order and having to restart the game due to the smallest error.

OBJECTIVES OF THE TREATMENT

The main objective of the intervention was to reduce the symptoms through making the biases flexible. It also attempted to increase the functional activity of the subject, stimulating him to perform activities which interest him. Later, intervention was made into the patient's interpersonal variables, training him in how to be more assertive with his family.

Assessment Instruments

Before starting treatment, the patient undertook a set of instruments to measure the level of intensity of his OCD, the content of his obsessions, his most prominent biases, his general personality, anxiety, depression, and psychological unease. These instruments were administered and corrected by a specialist in psychological evaluations that seek to diagnose OCD. The patient was then interviewed by an expert therapist who carried out and confirmed a differential diagnosis. The assessment took the form of a single case design, the subject being his own control.[24]

Yale-Brown Obsessive Compulsive Scale (YBOCS): This scale was developed by Goodman et al.[25] It measures the intensity of obsessions, compulsions, and subtypes of OCD. The scale is comprised of 16 Likert-type items from 0 to 4. The maximum score is 40 points and the graduation between the intensity is of subclinical unease (0 to 7), mild (8 to 15), moderate (16 to 23), serious (24 to 31), and very serious (31 to 40).

Clark-Beck Obsessive-Compulsive Inventory (C-BOCI): This consists of 25 items that assess the frequency and seriousness of the obsessive compulsive symptoms. It includes elements of recent investigations into the disorder, such as awareness of the illness or attempts to control. The scale was developed by Clark et al.[26] and the Spanish version by Belloch et al.[27] was used.

Revised Inventory of Obsessive Beliefs [in Spanish: Inventario de creencias obsesivas revisado] (ICO-R): The ICO is a questionnaire that measures dysfunctional beliefs related to a subject's obsessions. Assessment of the most evident biases allows for the more rational organization of intervention. The questionnaire consists of 50 statements about which the patient must define the extent each one applies to them on a level between 1 and 7.[28] The inventory does not have scales or cutoff points, but there is good correlation between the level of bias and the intensity of OCD symptomatology.[29]

The results of the pre-treatment evaluation are shown in figure 1 and the bias compared in figure 2.

Description of the intervention

The therapy had a weekly format with one hour for each session. It was delivered in the headquarters of the Fundación Aiglé in Buenos Aires, Argentina. The therapist was a male psychologist 29 years of age, with postgraduate training in cognitive therapy and at least five years of clinical experience. The case was supervised by Foundation specialists who were experts in OCD.

Development of the intervention

The process for the intervention included 20 sessions split into three different phases (table 2).

Phase one: The first part of the intervention (three sessions), was some psycho-educational work on OCD, defining the disorder according to DSM criteria, explaining the cognitive and behavioral symptoms, and normalizing the experience of the disorder within ongoing normal experiences, explaining that all people suffer intrusions.

YBOCS	34 (serious)
C-BOCI	
• Intrusions	21
• Compulsions	30
ICO-R	
• Excessive responsibility	6.14
• Overestimation of danger	3.50
• Perfectionism	5.86

Figure 1.

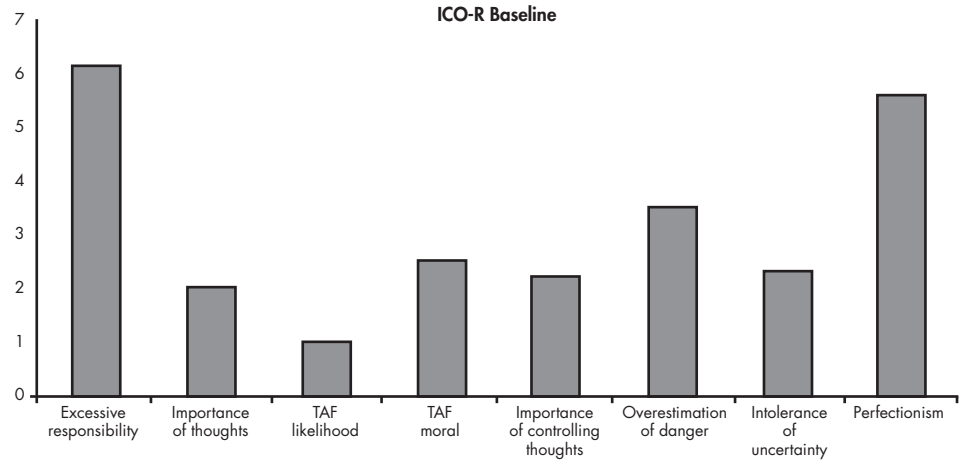

Figure 2. Biases.

The patient was then educated about the cognitive model of OCD. A description was given of how rituals are, in reality, a way of reducing anxiety caused by the obsessions. As intrusions are part of the normal mental experience, it was shown how a bias favors a negative assessment of intrusions, causing an increase in anxiety and the unease that brings about ritualization.

Table 2. Components of treatment

Phase one: Psycho-education (1 to 3 sessions)
- Description of the diagnosis (What is OCD? Obsessions, rituals).
- Paradigm of normalization (OCD as a continuation of rational but dysfunctional behaviors).
- Give "Role of illness".
- Psycho-educate about the difference between OCD/non-OCD behavior based on functionality.
- Presentation of the cognitive model of OCD, showing the diagram.
- Explain that at the center of maintaining the problem are negative assessments and beliefs (biases).
  1. Definition of Bias.
  2. Presentation of the eight biases.
  3. Identification of the most heightened biases in the patient.

Intermediate phase: Modification of biases (approx. 16 sessions)
- Identify the most prominent rituals.
- Identify the obsessions that cause the ritual.
- Identify the beliefs that are taken on by the obsessions.
- Identify the biases within these beliefs.
- Intervene in these biases through belief-modifying techniques, REBT, debate, mini-experiments etc.
- Once the biases of a ritual have been debated, model an alternative "non-OCD" behavior and set it as an inter-sessional task.
- Continue with the consequent ritual until the most prominent ones have been covered.

Final phase: Relapse prevention (2 sessions)
- Summing up the model.
- Propose and reinforce adaptive activities (leisure, work, general behavioral health).
- Identification of situations that increase obsessions and rituals.
- Preparation for facing possible future relapses (armed with the "Toolbox").

It was therefore explained that the way to diminish these rituals was to try and make the biases as flexible as possible, instead of trying to stop the obsessions. To reinforce the learning, the patient was given a copy of "The Circular Model of OCD", a copy of the "Bias Glossary" (table 1) and a copy of the ICO-R model with information on their most prominent biases (Figure 3).

Treatment phase: Once psycho-education had concluded, the patient was then trained in the identification of their rituals and of the biases that were operating in the ritual.

To begin, the patient was asked to bring a list of his most evident rituals, with a measure of the level of anxiety he was caused by not doing the ritual and the time spent in doing each one.

Using the Ellis ABC Model[30] the patient was trained to identify and record his most outstanding obsession. The use of this model helped in identifying the intrusive thoughts that sustained each ritual. In this way, it became easier to identify the biases that were causing each intrusion to be interpreted as catastrophic and dangerous. According to this model, "A" is the situations that trigger the obsession, "B" is the intrusions that the patient has, and "C" is the neutralization rituals.

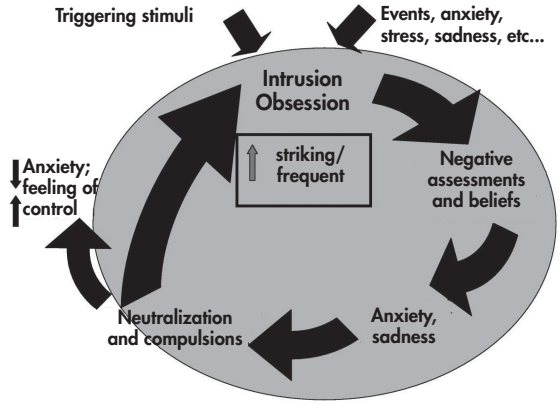

Figure 3

It started with one of the less demanding rituals (checking the gas before going to sleep) which served as a model for the rest of the approaches. First, the therapist showed how a ritual could be recorded, correctly identifying triggering events, obsessions, and rituals. The patient was then asked to give examples and he was set the inter-sessional task of taking a ritual and developing it according to the ABC model.

The model completed as an inter-sessional task by the patient on checking rituals is as follows (Figure 4):

Once the obsessions that sustained each ritual were identified, they moved on to identify what biases sustained the obsessions with the help of the "Bias Glossary".

The following excerpt shows how the overestimation of danger was driving the checks that the patient made of the heater:

T: -Now within these thoughts, we can start to identify the biases. For example, imagine that a spark...no, we won't even mention a spark....imagine that a curtain were to touch (the therapist touches the curtain on his left)...

P: -Yes, imagine that this is the "Eskabe" (indicates the heater that is behind the therapist)

T: -Imagine that this happens and the curtain touches here (the therapist brings the curtain close to the heater) and it causes a fire that makes me lose my house...What bias does that remind you of? You had three heightened biases.

P: -Overestimation of danger is one.

T: -Exactly. It is assessing that a danger....Could there be a danger that it sets the curtain on fire? Well, yes. It could also happen that a meteor falls from above and crushes us all... but... it's about assessing it. Now we have to see if this assessment is good.

After identifying the most outstanding biases in the obsessions over the checks, the biases were then made flexible through various classic cognitive techniques such as the Socratic method, the ABC technique, or through mini-experiments.

"A" "I still doubt that I turned the gas off in the kitchen or did not shut it off properly".

"And what if I did leave the gas on in the kitchen?"

"It could surely start another gas leak on the stove top or in the oven and if there was a random spark it could cause an explosion and set fire to the apartment; what will I tell the landlord, that I am a careless tenant? I'll have to pay for all the damage, we'll be financially ruined".

"B" "It could surely cause an undetectable gas leak, which won't give my wife or I time to react, or we will both die of asphyxiation due to the gas".

"A gas bill will arrive that is impossible to pay: how will I tell my mother about the terrible debt that I'll go into on my bank account? I am not going to cheer up or I'll make myself look really bad telling her; in the end I will have to breach the rental contract and my wife and I will have to go and live with her: it will be terrible".

"C"
- Anxiety
- Fear
- Urges to spend a lot of time checking that the gas dial is shut off before going to sleep or leaving the house.

Figure 4

The following excerpt exemplifies how the patient's perfectionism over the checks was approached.

P: -Walter, isn't there another separate belief? Isn't the belief stuck in me that it didn't happen because I am so careful?

T: -Of course, absolutely. That makes you continue the ritual, that maintains it.

P: -Because you said, "it never happened". But it never happened because I check so much.

T: -Alright, let's turn it around. Does your wife check much?

P: -(laughs) No, never!

T: -And how many times has your wife burned the house down?

P: -No, never.

T: (the therapist smiles and shrugs his shoulders)

As an inter-sessional task, the patient was advised how to fill in sections D and E of the ABC model, "D" being a direct debate of the assessments contained in "B", and "E" being the alternative behaviors that come out of those debates.

Here is what the patient brought to the following session (Figure 5):

Note that the debate about the ideas covers various biases. Once the checking ritual had been approached, and the biases debated, the patient began to experience a gradual improvement in terms of the time spent checking. Using the checking ritual as a model, intervention was extended to the other rituals.

For example, one of the patient's beliefs was that "if you don't know where an object has been, it would surely be very dirty and contaminated", which took the form of intolerance of uncertainty. The following excerpt shows how this idea was debated.

T: -When in doubt, it's like you choose the danger. "I don't know, therefore I'm sure it's contaminated", and how do you know?

P: -And yes, when in doubt I have to clean.

T: -Of course... Like saying "That was over here" (the therapist takes a cell

"There won't necessarily be a catastrophe if I left the gas on in the kitchen of the apartment".

"How many times have I seen a place be destroyed because the gas was left on?"

"D" "It is more likely that nothing will happen, unless a gas ring hasn't been shut off properly and so straight away there would be a smell of gas, which would dissipate with the smallest ventilation; anyway, nobody would light a match if they could smell gas unless they were suicidal, although even then, I doubt that the accumulation of gas would be enough to cause an explosion which would totally destroy the apartment and everything in it".

"This doubt is unpleasant, but it is not unbearable".

"It is useless for me to allow so many problems to make me worry when it won't change anything".

"If I check it, I will feel better at the time, but I will have to keep checking it in the following days, so it is better that for me to bear it".

"E" "Tolerable discomfort".

"Certain relief".

Figure 5

How to face a ritual
1. Identify the ritual.
2. See how much anxiety is provoked by not doing the ritual; see how much unease it causes one's environment if they do the ritual, and how much time it takes.
3. Ask oneself: "And what happens if I don't do it?"
4. Debate the idea through the ritual.
5. Expose oneself to not doing the ritual.
6. Choose an alternative behavior.

Figure 6

phone off the table) And would it be contaminated? Of course! What do I know, it was right here... This is a table, I don't know what people do here...

P: -Laughs... No, of course you dropped it in the street and you have to clean it!

T: -Alright, how about this... I lowered it down a drain on a tiny thread (mimes tying up the cell phone and lowering it down the drain)

P: -(Laughs)

T: -No... these don't come cheap. Otherwise, what would I do this for? Why would I do these things? (laughs).

Once the debate over a ritual's bias is completed, the need to ritualize is re-evaluated. The following excerpt shows how the behavior of exhaustively cleaning the bath handle was re-evaluated after having discussed the perfectionist beliefs about the ability to make something absolutely clean.

T: -Thinking about all these things that are perfect... now, let's think about the handle...

P: -You have to make the decision not to clean it

T: -Is the handle really that filthy?

P: -It is to me. (laughs)

T: -That's true. But now with this new information...

P: -And... now... It's like it hurts you more to clean it.

Furthermore, the patient was helped to identify what behaviors would be the most functional now that he should start to do things differently. The idea was that the patient could distinguish between the "OCD" and "non-OCD" versions of cleaning tasks; using the computer; and checks and

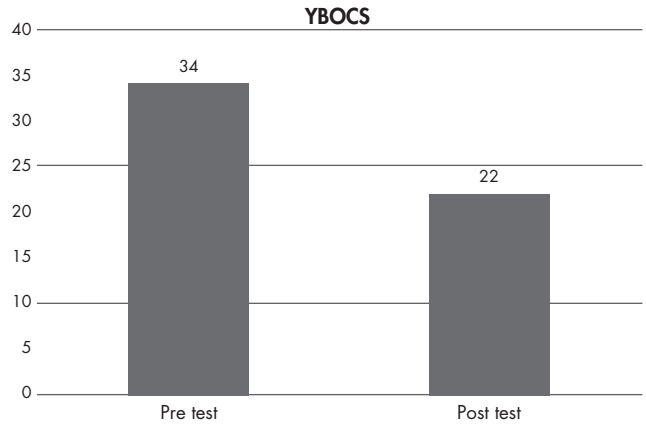

Figure 7

order, having practicality and economy of time as the criteria instead of relief.

Once the procedure was completed, the criteria of intervention into the rest of the rituals was moved into.

Relapse prevention phase: The prevention of relapse was organized around the creation of an "Anti-OCD toolbox", with strategies that the patient can put in place when he realizes that the rituals are increasing. The patient put together the following table as a record of how to face a ritual (Figure 6).

RESULTS AND FOLLOW-UP OF THE INTERVENTION

After 20 sessions, the patient was re-assessed with the YBOCS, the ICO-R, and the C-BOCI. As shown in the following figure, the patient had a considerable improvement in the level of intensity of his symptoms. While the recovery criteria of the YBOCS could not be reached, (finishing the treatment with fewer than 7 points), a substantial improvement can be seen in moving from the category "VERY SERIOUS" (between 31 and 40 points) to that of "MODERATE" (16 to 23) (Figure 7).

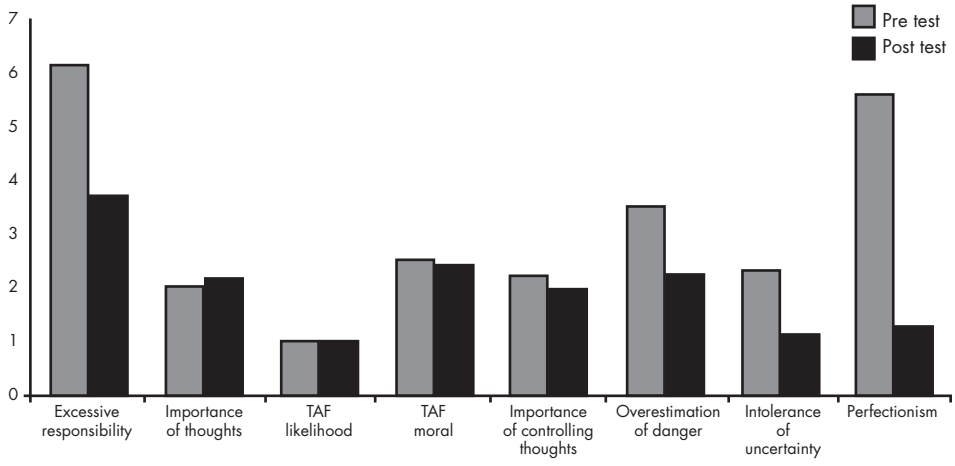

Figure 8. ICO-R compared

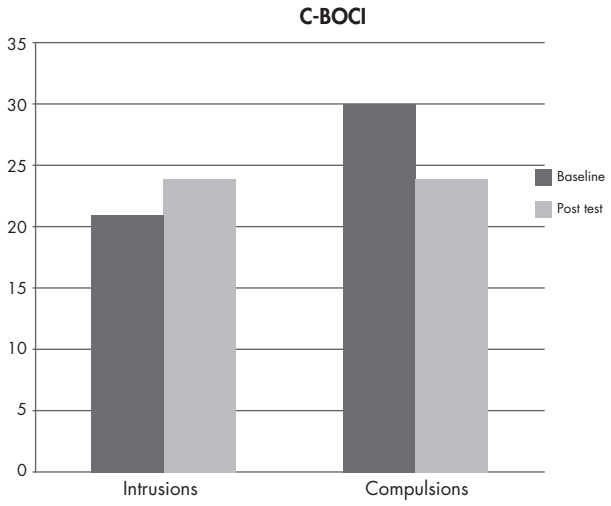

Figure 9

Furthermore, the patient's most evident biases showed a notable reduction, especially excessive responsibility, intolerance of uncertainty, and perfectionism. As there are no scales, the subject was his own control, being assessed in situ pre test and post test (Figure 8).

In the C-BOCI assessment, it was noted that the compulsions diminished considerably but the intrusions increased slightly (Figure 9).

In the final sessions, when asked how he felt regarding the symptoms that interrupted his life, the patient expressed feeling calmer and advised a notable reduction in the time spent in the bathroom (from 2 hrs at the start of treatment to some 45 minutes at present), a reduction in his checking rituals before going to sleep, and a greater general sense of calm.

He also increased his involvement in his adaptive activities. He has resumed his painting, joined an art course, and prepared a box to store his paintings, which he decorated, sanded, and varnished himself.

He started to attend art exhibitions with his wife once again and they began a routine of taking pleasurable outings as a way of revitalizing their relationship.

At the time of finishing treatment, the patient had resumed marital contact with his wife and they were expecting a baby.

When contacted a year later, the patient advised that he had suffered occasional relapses but used the tools obtained in therapy to overcome them. Since he finished the treatment he has found work as an artist and writer, presenting his work in local art galleries and working on a second book. His work is available through various channels in his city.

DISCUSSION

In the present work, a cognitive therapy was described for a patient with various types of OCD symptoms, the most prominent being an obsession related to contamination. The type of intervention used was specifically that designed by Belloch,[15] in which cognitive processes that assess obsessions influence biases.

It was intended to circumscribe everything possible in the technical arsenal to the field of cognitive therapy, leaving out interventions such as ERP. The inclusion of mini-experiments was not intended to carry out an exposition; rather, they were oriented around empirically questioning some of the alarmist beliefs of the patient. However, it is possible to argue that there is a difficulty in being able to distinguish whether the mini-experiments in reality do not function as behavioral expositions. Furthermore, patients usually embark on spontaneous expositions which make it even more difficult to identify the active components of the intervention. Future investigation into these events is required.

As evidence in favor of the cognitive model, it can be said that the changes were highly generalized to dissimilar rituals, but that they shared, according to the model, the same biases, such as the over-estimation of danger that exists both in the belief that "not washing the body adequately will cause terrible illnesses" as in the idea that "if I don't look at the gas switch for a few minutes, the whole house will surely be reduced to ashes".

One interpretation of the results was that the type of therapeutic strategy used produces evidence that we can consider cognitive biases as measurable variables of the therapeutic change in the treatment of OCD, when allowing a reduction of the credibility of the intrusions and the resulting emotional intensity of the responses to them. From another angle, the results could be interpreted in behavioral terms by habituation to aversive stimuli.

A possible criticism of the bias model is that, according to a study carried out by Belloch and others,[29] biases appear in a sample of patients who have symptoms of anxiety and depression but not OCD, suggesting that they are not exclusive to one certain disorder. It is hoped that in the future there will be more specific research around the bias model and its specificity. During the intervention, special interest was taken in the relationship between the patient and his family, given that in a disorder as deteriorating as OCD, an improvement in the symptoms has a multiple effect in the quality of life both of the patient and their family unit.

While the intervention stayed within the specific factors of cognitive change, attention to non-specific factors such as empathy, acceptance, and commitment to change were of extreme importance. The development of a strong therapeutic alliance is considered imperative in order to enable the hard work that the patient has so bravely undertaken.

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