

## A brief summarize of conversion disorder treatments

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Little is known among the majority of therapists about the Conversion Disorder, and even less about the existent treatments. The idea of this article is to explain the main treatments that have been used so far in the clinical psychology, and the strengths and weaknesses of each one. The number of studies in this field is not as exhaustive as it should be, considering the prevalence of this disorder in the population. Although since Janet's time there have not been remarkable developments in the field, in the last decades, cognitive-behavioural therapy, along with pharmacological therapy, have been used in conversion disorder treatment with high effectiveness. Neuropsychological studies have offered new explanations for the disorder, due to neuroimage use. Considering the information available about the disorder in the last ten years, conversion disorder can be considered as an extreme stress response, so new treatments should consider this characteristic in order to improve the information known so far.

Nowadays, there are different approaches for disorder treatment, depending on the theoretical model used for the intervention. Traditionally in our discipline, therapist used to select just one theoretical approach and only their treatments, in a kind of "fight" against other psychological models that could explain the disorder from other points of view.

However, nowadays most of therapists acknowledge that a holistic point of view of the disorders is so much useful than a restrictive one. This new (and unthinkable some decades ago) view of the psychology, as a holistic discipline in which a disorder can be explained from different models, is what currently we can find in conversion disorder treatment. So, although we present the treatments classified under the model which "created" them, never forget that in present psychology, therapies from different approaches are used together.

### *a) Psychodynamic treatments*

Psychoanalytic treatments were the first in being used. Considering mental disorders as mainly caused by repression, therapists tried to uncover those repressed emotions in the patient, in order to allow them to express their emotions in a *healthy* way. The main tool used by them was, as is widely known, the *psychoanalytic dialogue*, in which the therapist tried to bring the repressed thoughts from the mind's unconscious to the conscious.

This way from the unconscious to the conscious part of the mind is not an easy job, so the use of complementary techniques to the dialogue seems strongly necessary. It is in this context in which we include the two techniques that, in our opinion, represent the most important ones along with the dialogue *per se*.

### *I. Psychoanalytic therapy*

Rooted in Freud's theories, psychoanalytic therapy has been widely used along last century and, of course, for treating conversion disorder patients. Given that the first "psychological" definitions of the disorder were made by psychoanalytic therapists, it is clear why the main conversion disorder therapies follow this psychological model.

The main idea for these therapists was that, through intensive dialogue, disorder could be solved. Therapist work should be direct patient's thoughts, in order to help him to bring stressful feeling to conscious.

One of the techniques used by these therapists was hypnosis. For its complexity and importance in conversion disorder treatment, it seems proper dedicate a specific part for its explanation.

### *II. Hypnosis*

Despite other times considered as one of the most effective treatments, in the recent decades this psychological tool has been discredited, since the cognitive-behavioural establishment as the paradigmatic one in psychology. Although not completely disappeared, its use has been reduced mainly to psychodynamic therapists and some psychiatrists (quite unknown among psychologists that most of psychiatrists have a psychodynamic orientation). But this general tendency it seems to be different in conversion disorder treatment. May it be due to the still scarce knowledge about the disorder, hypnosis is still considered as a useful treatment for these patients. But if we talk about hypnosis, first it is necessary

talking about *suggestion/self-suggestion*.

It was Janet who coined the term *autohypnosis* (Janet, 1907), which is a synonym for the nowadays more used concept *self-suggestion*. He purposed that, in conversion disorder, patient would *autohypnotize* himself in order to relief himself from the strong stress he felt (Roelofs et al., 2002). This autohypnosis was the reason why, consequently, patient displayed somatoform symptoms (patient would have hypnotized himself some areas of his brain, and the “hypnosis” of these areas would cause therefore the symptomatology).

So, having that in mind, it seems quite obvious which would be the disorder treatment: hypnotize the patient again in order to allow the therapist to unmake the patient self-hypnosis, bring his repressed stress out and, as result, allow him to express it properly.

Some studies have been done in the past decades, in order to find support for these previous assumptions (Goldstein et al., 2000). Roelofs et al. made a research under two main assumptions. The first one was that “patients with conversion disorder are highly susceptible to hypnosis” The second assumption was that “hypnotic susceptibility is related to the

dissociative symptomatology” (Roelofs et al., 2002). Conversion disorder patients were compared with a control group. The results (table 8) showed that conversion disorder patients were more susceptible to hypnotic suggestions than control patients. As well, it was observed that the more susceptible a patient was to hypnotic suggestion, the more symptoms he displayed. But, despite of these results, Roelofs et al. (2002) purpose hypnotic suggestion susceptibility as a risk factor for developing conversion seizures, but not a determinant factor. Even more, they found that conversion patients were not only more susceptible to hypnotic suggestions, but to nonhypnotic suggestions (indirect suggestions) as well. So, in the light of these results, hypnotic suggestion cannot be considered as a determinant factor but as a risk factor. Despite of it, Roelofs et al. (2002) study shows a strong support for hypnosis therapy in conversion disorder patients.

### ***b) Cognitive-Behavioural treatments***

Despite conversion disorder is a well known disorder since Egyptians time, it is astonishing the lack of research in the treatments field. Apart from the

psychodynamic treatments mentioned before, which have been studied

**Table 8. Roelofs hypnosis study**

Measure	Control patients (n=50)		Conversion patients (n=50)		Effect size
	M	SD	M	SD	
<b>SHSS-C*</b>	3.9	2.6	5.6	3.1	0.6
<b>SDQ-20*</b>	23.0	3.8	30.5	8.5	1.2
<b>DES</b>	9.1	7.9	11.7	11.0	0.3
<b>DIS-Q</b>	1.8	0.5	1.8	0.7	0.0

\*Taken from Roelofs et al. (2002).

SHSS-C: Stanford Hypnotic Susceptibility Scale: Form C.

SDQ-20: Somatoform Dissociation Questionnaire.

DES: Dissociative Experiences Scale.

DIS-Q: Dissociation Questionnaire.

specifically for conversion disorder, there are only other few examples of treatments specifically developed or studied for conversion disorder. Which we can find for its treatment from a cognitive-behavioural approach, are therapies for Psychogenic Nonepileptic Seizures (PNES), among which we can classify conversion disorder. PNES are a group of mental seizures characterized for showing several different like-neurological seizures, which, indeed, are not caused by neurological disorders but psychological ones. The term “nonepileptic” is used because a high percentage of the symptomatology is almost identical to which epileptic

patients’ shows, as it was explained previously. So, what therapists have nowadays, are a bunch of treatments used for PNES in general, but almost no one of them specifically tested in conversion disorder patients. Anyway, a brief explanation of these treatments from the cognitive-behavioural approach is given.

Deeply rooted in learning theories, behavioural postulates have also integrated cognitive assumptions to their model, with the result of the paradigmatic psychological model nowadays. Because of that, treatments will show traces from the very traditional learning postulates, to the most recently cognitive psychological assumptions.

As the name indicates, cognitive-behavioural treatments will be integrated by two different but simultaneous techniques: the behavioural and the cognitive. But, as the name is, the intervention process is integrated as well. For that, we talk about Cognitive-Behavioural Therapy (CBT).

This therapy is focused in two processes: the primary and secondary gain that the patient gets due to his disorder. As it has been explained, patient gets two main benefits from his disorder: self-relief (primary gain) and

social attention (secondary gain). There is a specific intervention for each one. As the primary gain is an internal cognitive process, the most suitable therapy would be cognitive restructuring, as purposed by Ellis or Beck (we will explain their therapies later). For the secondary gain, a behavioural approach seems more suitable, due to the social nature of this process.

Cognitive restructuring can be traced back to the 50s, when Albert Ellis postulated a revolutionary treatment for anxiety and affective disorders. His treatment is known as Rational Emotive Behavioural Therapy (REBT) or ABC model (Ellis, 1957). Ellis purposed that psychological disorders appeared due to cognitive distortions of internal and external information. Hence, his treatment goal was showing patient that he was committing cognitive biases, and that those biases were the main reason for his disorder. Ellis' ABC model established the following phases for patient treatment (in order to adapt it to conversion disorder treatment, ABC model will be explained using stress as example):

**-Phase A:** establish the stressful events that happen just before patient's anxiety state.

**-Phase B:** make the patient conscious of the irrational automatic thoughts that happen between the stressful event and the anxiety state.

**-Phase C:** make the patient conscious of his feelings and his anxious state, which come from those automatic thoughts.

**-Phase D:** argue irrational thoughts discovered in phase B.

**-Phase E:** lead patient (directly or indirectly) in the codification of new adaptative rational thoughts about the stressful event and its consequences.

**-Phase F:** help patient to codify the new feelings that result from the new thoughts of phase E.

After this brief explanation of Ellis' model, now let's show the main techniques that therapist can use in order to achieve his goal:

-First of all, an explanation of the model is strongly recommended.

-After that, therapist should teach patient how to detect his automatic irrational thoughts. It is more difficult in the case of conversion disorder patients, due to their usually *belle indifférence* to their symptomatology.

-When patient realizes of those thoughts, an argument is necessary in order to help patient to change them.

-Eventually, therapist must encourage patient to consolidate the new thoughts.

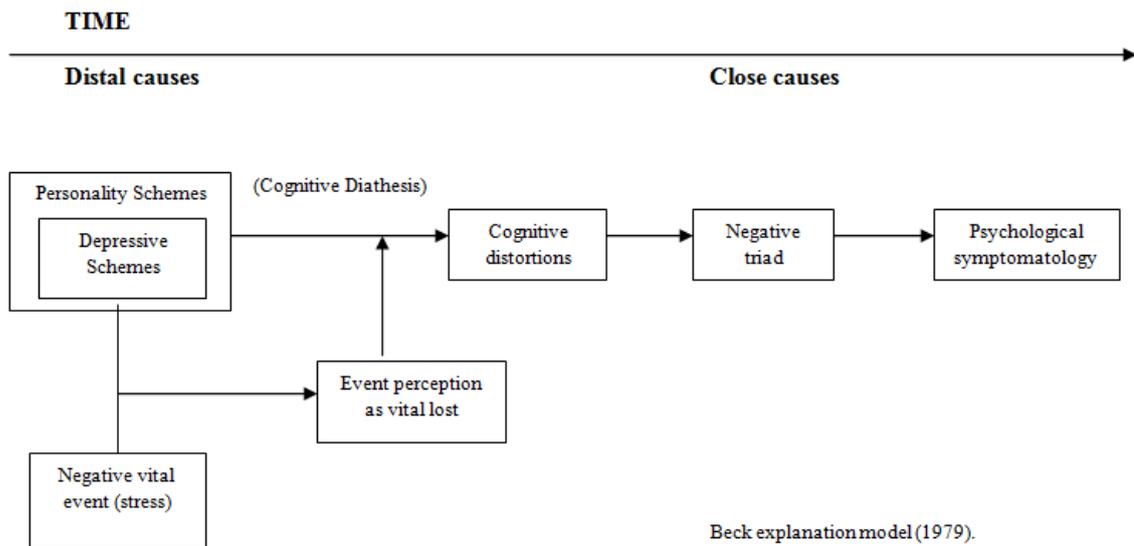
Another approach to cognitive restructuring is given by Aaron Beck. Originally created as a depression therapy, his cognitive therapy (Beck, 1979) is nowadays widely used for treating almost all kind of psychological disorders (Figure 2). His model, as Ellis's one, takes into account automatic cognitive distortions, but includes other variables, such basic cognitive schemes and the revolutionary concept of *cognitive triad* (Beck, 1991). With the basic cognitive schemes concept, Beck somehow links the cognitive model with the already traditional Freudian point of view. In addition, Beckian therapy model is more accurate than Ellis' REBT. The main points of the Beckian therapy are the following:

**1. Psychoeducation:** one of the most important assumptions in Beck's model is that a proper psychological understanding of the disorder is necessary for changing the factors

that maintains it. Because of that, it is indispensable that therapist explains (properly to each patient) the disorder and the main reasons why it is maintained. It will give the patient a feeling of control, which will be fundamental in the conversion disorder treatment.

**2. Training:** it is necessary to train the patient in how to detect his automatic distorted thoughts. Maybe, this is the phase in which therapist actions are more important. Through Socratic dialogue, therapist should lead patient to realize those cognitions and incongruences that may be in his speech. In conversion disorder, this phase could be even more important. As Janet said, *la belle indifférence* usually means the patient's unacknowledged of neither symptoms nor stressful events that caused the present conversion disorder. So the acknowledgment of either symptomatology and causing event are fundamental in this phase.

Figure 2



### 3. Behavioural experiments:

finally, when patient has acknowledge his symptomatology, it is necessary to show him that he has not lost his motor or sensorial faculties, but are inhibited due to a stress response. Video records, automatic response elicitation and consecutive response approaches are useful psychological tools in this final phase.

Until now, an explanation of how resolve the primary gain has been given to reader. It is time now for explaining the main approaches to secondary gain solution. In this case, the therapy will follow a more traditional behavioural approach. Secondary gain can be conceived as the attention that a patient gets due to his disorder. This gain is sustained by an operational conditioning process. Disorder symptomatology is reinforced by the attention provided by

people around the patient. In this case, it is necessary talking with patient family and close social sphere, and explain them that no attention should be given to patient's conversion symptomatology. Instead of it, attention should be directed to those behaviours which are incompatible with conversion behaviours. Those techniques are known as extinction and differential reinforcement, and their intrinsic characteristic should be as well explained to the patient's family and friends.

Once the main points of the CBT have been shown, it is now turn for presenting some concrete examples of CBT application.

LaFrance (LaFrance et al., 2009) set up a CBT program specific for patients with PNES, among 2002 and 2007, with 21 patients, of whom 17 finished the treatment. The therapy consisted in 12

individual one hour weekly sessions. The therapy was led by a therapist with more than ten years-experience. The sessions' content is referred in table 9. The results showed that “sixteen of the twenty-one participants reported a 50% reduction in seizure frequency, and eleven of the seventeen completers reported no seizures per week by their final CBT session”. Those results prove that LaFrance CBT programme was effective, and he himself says that these evidences open a door for conversion disorder patients (although study was not specific for conversion disorder patients).

Other significative CBT efficacy study was conducted by Goldstein between 2001 and 2007 (Goldstein et al., 2010). The aim of the study was checking the effectiveness of a CBT programme applied to PNES patients (n=66). The importance of this study is that is one of the few which has a control group, whose patients (n=33) received Standard Medical Care (SMC), meanwhile the other 33 received the CBT programme. Of the CBT programme group, 66.7% patients attended to all sessions. The therapy consisted on 12 one hour-long weekly sessions, led by a CBT-trained nurse therapist.

**Table 9. LaFrance CBT programme**

<b>Session number</b>	<b>Description</b>
<b>Introduction</b>	Introduction for the patient: understanding seizures
<b>Session 1</b>	Making the decision to begin the process of taking control
<b>Session 2</b>	Getting support
<b>Session 3</b>	Deciding about your medication therapy
<b>Session 4</b>	Learning to observe your triggers
<b>Session 5</b>	Channelling negative emotions into productive outlets
<b>Session 6</b>	Relaxation training
<b>Session 7</b>	Identifying your pre seizure aura
<b>Session 8</b>	Dealing with external life stress
<b>Session 9</b>	Dealing with internal issues and conflicts
<b>Session 10</b>	Enhancing personal wellness: learning to reduce tensions
<b>Session 11</b>	Other seizure symptoms
<b>Session 12</b>	Taking control: an ongoing process

\*Based on LaFrance et al. (2009).

The treatment idea was making patients conscious of their symptomatology and explaining them the reasons why they appeared and why they persist. The therapy also addressed treatment for low self-esteem, low mood or anxiety problems (this last one is a very interesting one for conversion

disorder patients). Results show that CBT programme was so much effective in symptom reduction that SMC, which is the one usually given to PNES patients.

Despite there is no exhaustive information about CBT effectiveness, it is also true that there is the one which has more support in the light of the results. More research must be done in order to confirm this assumption but, until then, CBT programmes seem to be the more accurate choice in conversion disorder treatment.

### ***c) Pharmacological treatments***

Conversion disorder treatment based on a pharmacological therapy is a quite newly one. Although pharmacological therapy is not new in our discipline, last two decades have provided us with a deeper knowledge of how the pills work in our nervous system. Until the 70s-80s, all the information relative to psychopharmacological therapy came from essay and trial studies. When a new medicament appeared, it was tested into clinical population, and the results assessed. Sometimes those pharmacological therapies worked, but no exhaustive information about how could be given. With neuroimaging and biochemical techniques development in

recent years, our knowledge of brain working increased dramatically. It has allowed us either to improve pharmacological therapies, as well as understanding how they work.

Have we seen the neurobiological explanation for conversion disorder, referred to a cortical temporary seizure in prefrontal cortex due to patient's high stress-repressed levels. In recent years another complementary explanation has been given by several researchers (LaFrance et *al.*, 2010), an explanation based on the serotonergic system. Along with conversion disorder, other psychological disorders are usually present, disorders often related with depression or anxiety. Serotonergic system is basically the main neurotransmitter system implicated in those disorders. LaFrance assumption was that, if treating comorbid disorders in PNES patients, its PNES symptoms would be reduced as result. Its pharmacological treatment choice was using Serotonin Selective Reuptake Inhibitors (SSRIs), specifically sertraline. This study is very important, due to be the very first Randomized Control Trial (RCT) research performed for studying pharmacological therapy effectiveness in PNES patients.

As referred previously, amygdala misregulation is believed to be the main

physiological problem in conversion disorder, which leads to ACC misregulation. Serotonin activity is narrowly related with amygdala working. Increasing serotonin levels could help in improving PNES symptomatology.

Results showed that sertraline group reduced its PNES symptomatology in comparison with placebo group, although limited sample size made impossible to generalize the results. Despite of it, the development of a RCT study is an important step in pharmacological conversion disorder treatment research. Anyway, it seems plausible that future studies with proper sample size will confirm the results that LaFrance (2010) got.

Along with pharmacological treatment, CBT therapy is also necessary in order to actually improve patient's symptomatology.

Other treatment which could be included here is the abreaction technique (Poole, Wuerz, Agrawal, 2010). Abreaction is a technique in which therapist interviews patient, who is under the influence of a drug. The idea of this method is to reduce the patient's consciousness in order to let it out the possible repressed feelings and anxiety which could be maintaining the disorder. Patient, in this situation, would

verbalize both its feelings and the event which probably caused the disorder. Abreaction would work, theoretically, as hypnosis does, and the rest of the process would be the same. This technique is among psychodynamic and pharmacological techniques, but for the central play that drugs have, it has been included here. Findings say that abreaction is a useful technique, moreover for patients with long-term resistant disorder.

As it has been presented, there are different approaches for the intervention, depending mainly of the explanation model used for the comprehension of the patient situation. However, one thing in which almost everyone seems to agree is in linking conversion disorder with stress (anxiety). In this line, CBT treatments seem to be more or less the same which would be used in other anxiety disorders, and the results are quite good. Considering it, one question that comes to my mind is, would not be better to classify conversion disorder into anxiety disorders? It is true that the symptomatology is the characteristic of somatoform disorders, but the disorder origin seems to be in stressful events, exactly as in anxiety disorders. The point then is: what is more important for

the disorder classification and understanding, its causes or its symptoms? Maybe the answer of these questions are into the own DSM and CIE classification criteria, which is considering symptoms, not causes, due to the impossibility of finding the certain origin of several disorders. So, although it could seem that the conversion disorder would fit better into anxiety disorders group, symptomatology classification criteria leads this disorder to somatoform classification group.

Summarizing, further studies must be done in order to improve the present knowledge available about conversion disorder, especially about its treatments. These studies must follow the path started in the first decade of the present century, never forgetting the importance of statistical demands.

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