# Preliminary Study of an Integrative Cognitive- Behavioral Model of Panic (ICBM-PD) in the treatment of PD: predictive value of cognitions.

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## INTRODUCTION

Since the first models of panic (Clark, 1986), many theoretical and research contributions have been made on the explanation and prediction of PD. There is and increasing acknowledgment about the relevance of catastrophic cognitions, anxiety sensitivity and self-efficacy coping skills (Sandin, D. and al., 2015; Porter, E & Chambless, 2015). Since many years ago, the prediction and treatment of panic goes toward an integrative cognitive-behavioral model (Casey, LM, Oei, TP & Newcombe, PA, 2004). Many authors have recognized the role of self-confidence or positive cognitions concerning coping and control (Rachman, S., 1987; Fredickson, 2001; Teasdale, JD, 1999b). On the other hand, there are many other variables that could be intervening and mediating in the maintenance and persistance of dangerous beliefs of anxiety bodyly sensations (Porter, E & Chambless, 2015), such us learning history, personality variables (external vs internal locus of control), levels of anxiety sensitivity...We assumed the relevance and persistance of catastrophic cognitions in the development and maintenance of PD, but have tried to integrate the contributions of other models, and the role of social reinforcement of positive cognitions and coping behaviors, using a group ICB intervention.

The purpose of the present study is to evaluate the efficacy of an Integrative Cognitive Behavioral Group Program in the treatment of PD aimed at prevention of panic and agoraphobia at primary community level. This ICBP is integrated by 4 main components: **a)** psycho-education; **b)** cognitive restructuring; **c)** group and individual exposure and reinforcement; and **d)** learning of new coping responses.
We also hypothesized the main role of panic cognitions in the prediction of panic severity and PD, but we expected significant changes in panic severity, independently of the persistence of cognitions.

## METHODOLOGY

Sample. The subjects were selected from the patients with PD (according to DSM-IV), derived to psychological treatment in a CMHC by primary care practitioners since 2013 to 2015. The patients were offered to participate in a Therapy Group specific for PD. The treatment group was formed by the subjects who agreed on assistance to a 10 group sessions (ICBP). The control group was composed by subjects who do not agreed on a treatment group, and either received a 10 sessions of individual treatment, and subjects which were nor able to participate at that moment, most of them on pharmacological treatment.

**Sample characteristics:**

Age (Mean): 30 yrs. (range: 18 to 47 yrs);
Sex: 21 women (58,3%); 15 men ( 41,6%);
Educational L.: Primary Ed. 40%, Secondary Ed. 50%; Graduate: 10 %;
Time PD (yrs): < 1 yr. = 36,8%; < 2 yrs. = 36,8 %; 1 to 2 yrs. = 26, 3%;
Avoidance Rs.: ER = 17 (47,2%); No ER = 17 (47,2%), No Inf = 2 (5,5%).
Assistance: 63,2 % attended the 10 sessions; 21% attended ≥ 6 sessions.

## MEASSURES

All the 36 patients completed the evaluation at baseline of anxiety level (STAI-E and STAI-R), Clum´ Panic Symptoms and Panic Cognitions Questionnaires (PASQ and PACQ) and assessment of the panic severity (PDSS), which evaluates the interference of panic in daily life activities.

Only the 19 patients who participated in the ICB Group-Program completed the whole post-treatment evaluation. Because of temporal limitations of the study in course, we have not been able to complete jet the post-evaluation of control subjects.

Therefore we just have made pre and post intervention mean comparissons ("t" test) only for the treatment group. We also have made correlatios of the different variables for the whole sample of 36 patients at baseline and for the study sample of 19 patients and baseline ant post intervention in order to detect whisc were the more relevant variables in the modification of panic severity and PD.

## PROCEDURE

The ICB- Group Program was implemented in 10 week-sessions, runned consecutively in 3 groups. There were conducted by two professionals: a therapist, especialized in CBT, and a co-therapist, especialized in relaxation techniques.

## RESULTS

There were significant differences between pre y post treatment in all the variables meassured (see tables 1 and 2). After treatment, all subjects, but one, participating in the ICB- Group Program (≤ 6 sessions) reported no panic attacts and severity scores were not relevant. These results were maintained at 1, 2 and 3 yrs. follow up.

There was a significant reduction of pharmacological treatment from 78,9 % at baseline to 10,5% at the end of intervention; at 1, 2, 3 yrs. follow up, a 73 % of the treatment sample did not take any medication.

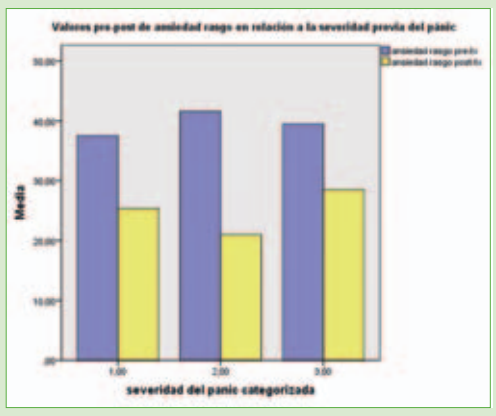
**Table 1. T-Test for paired samples**

| | | Paired differences | | | | | t | gl | Sig. (bilateral) |
|---|---|---|---|---|---|---|---|---|---|
| | | Media | SD | Mean ST Error | 95% confidence interval Lowr. | Supr. | | | |
| Par 1 | Trait- anxiety pre-post tx. | 15,9 | 13,1 | 3,0 | 9,57 | 22,21 | 5,288 | 18 | ,000 |
| Par 2 | State anxiety pre-post tx. | 13,2 | 11,4 | 2,6 | 7,72 | 18,70 | 5,053 | 18 | ,000 |
| Par 3 | Panic symptoms pre-post tx. | 28,8 | 17,7 | 4,0 | 20,25 | 37,32 | 7,086 | 18 | ,000 |
| Par 4 | Panic cognitions pre-post tx. | 17,0 | 9,24 | 2,1 | 12,54 | 21,45 | 8,016 | 18 | ,000 |
| Par 5 | Panic severity pre-post tx. | 8,8 | 4,02 | ,92 | 6,85099 | 10,73 | 9,526 | 18 | ,000 |

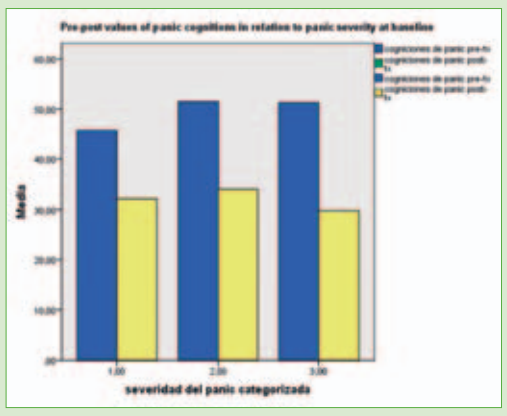
## CORRELATIONS

Pearson and Spearman correlations were calculated for variables of anxiety, panic symptoms, panic cognitions and panic severity. The severity of panic only showed significant correlations with panic cognitions at pre (R= 0,390 at sig. 0,05) and at post-intervention (R= 0,611 at sig. 0,01). Correlations among trait and estate anxiety were significant among them, but nor with panic cognitions, neither with panic severity. Panic symptoms correlated with cognitions at post-treatment, but no at baseline (See Graphic 4). We need to increment sample size (keep collecting subjects) to run a regression analysis. Nevertheless, it seems that panic cognitions kept relatively less modified than anxiety and panic symptoms variables, in spite of symptoms remission and recovery after treatment.
The presence of evitative behaviors was not determinant for the distribution of panic variables in the low and moderate severity levels (1 y 2), but it was relevant in the highest severity level, 3 (Graphic 3).

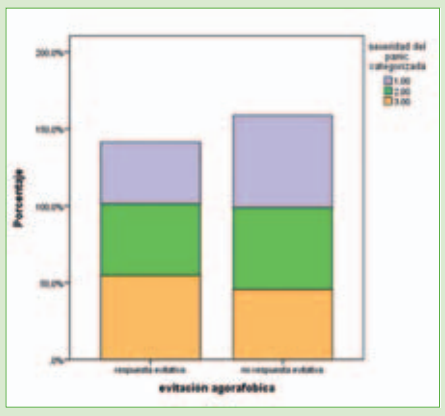
**Graphic 1. Trait anxiety pre-post related to panic severity**



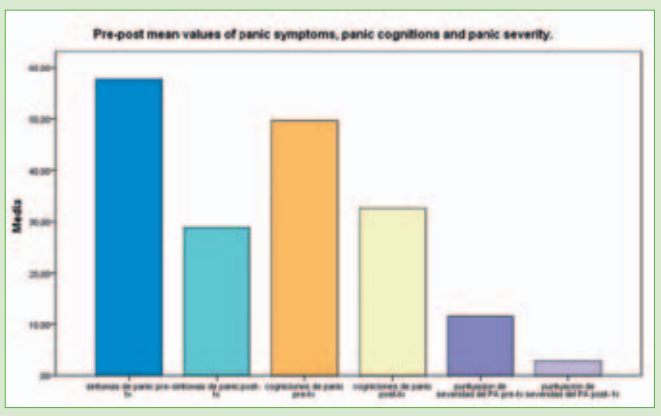

**Graphic 2. Pre-post values of panic cognitions related to panic severity level.**




**Graphic 3. Panic severity levels in relation with/without evitative response.**




**Graphic 4. Pre-post values of PS, PC and PS.**




## DISCUSSION

The results show the efficacy of this ICB-Group Treatment Program, which incorporates adquisition of cognitive and behavioral skills with social group reinforcement. Only 2 of the 19 subjects participating in the program did not get full recovery.
The results of the study emphasized the enduring nature of catastrophic panic cognitions, which were relatively less modified than anxiety and panic symptoms variables, in spite of symptoms remission and recovery. Therefore, we cannot confirm de predictive value of panic cognitions in panic severity and conclude that other variables, besides panic cognitions, such as sel-efficacy-coping *skills*, social anxiety and social reinforcement..., were relevant in PS and PD modifications. We need a largest sample and more controlled studies to verify this hypothesis.

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