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Hypnotic Psychotherapy for Panic Disorder: an empirical comparison with Cognitive Psychotherapy

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Summary

Objective. To increase knowledge about indications for hypnotic psychotherapy in panic disorder.

Method. 39 panic disorder patients with or without agoraphobia were treated with hypnotic psychotherapy (n = 21) and with cognitive psychotherapy (n = 18). Patients were evaluated at baseline, at the end of treatment, and at the end of a 12-month follow-up period.

Results. Hypnotic psychotherapy: 1) promotes a panic free condition in 47% of patients at end of treatment, achieving 89% at 12-month follow-up; 2) is able to improve significantly the quality of life, showing high tolerability and low drop-out rate; 3) is statistically similar to cognitive psychotherapy in relapse/recurrence prevention.

Conclusions. Our data support hypnotic psychotherapy as a promising treatment for management of panic disorder patients.

Key words: hypnotic psychotherapy, cognitive psychotherapy, panic disorder, evidence-based medicine

Introduction

Panic disorder (PD), with a lifetime prevalence in the general population of 1% to 4%, does not describe a homogeneous diagnosis and therefore covers phenotypically discrete patient subtypes with genetic and/or environmental vulnerability [1,2]. This may justify a range of prognoses and profiles of resistance to change requiring different treatments to respond to different and specific individual patient needs.

Current practice guidelines for the clinical management of PD have broadened the range of therapeutic proposals beyond pharmacological treatment as the only 'first choice' therapy supported by evidence based medicine (EBM) criteria [3].

In the 2010 update [4], the American Psychiatric Association (APA) recommended, in addition to the well-validated cognitive and behavioral therapies (CBT) and Cognitive Psychotherapy (CP), also panic-focused psychodynamic psychotherapy (PFPP), supportive therapy (ST), and Eye Movement Desensitization and Reprocessing (EMDR). The 2014 update [5] to the British National Institute for Health and Care Excellence (NICE) guidelines confirmed the primacy of CBT, but also opened to new "unlicensed" therapeutic proposals, like computer-assisted cognitive-behavioral therapy (CCBT), mindfulness based cognitive therapy (MBCT), and metacognitive therapy (MT).

Nevertheless, it is not yet clear whether certain psychological therapies can be considered superior to others. This topic is crucial because the therapeutic strategy for PD requires a rich and differentiated range of cost-effective therapies to reduce both its socioeconomic and clinical impacts.

In this context, we studied Hypnotic Psychotherapy (HP), an innovative hypnotic practice promoted by Erickson's school [6,7], as a candidate for PD treat-

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ment. Hypnosis is recognized as a scientific discipline, able to adapt its therapeutic format to both clinical and experimental needs. HP has been found effective in many anecdotal case reports, alone or as hypnotically augmented CBT, in smoking cessation and posttraumatic stress disorder, anxiety, depression, and psychosomatic condition. However, no systematic studies have been made to ascertain its empirical efficacy in psychiatric disorders, although strongly recommended by the International Society of Hypnosis [8].

In this article, we present our analysis: 1) to verify the efficacy and tolerability of HP in the short- and long-term management of outpatients with PD; 2) to apply evaluations with the same scales used in CP studies; 3) to replicate in the Italian population the standardized studies conducted in the international population; 4) to compare the impact of HP and CP in PD.

Materials and methods

General sample characteristics. The *inclusion criteria* were: 1) diagnosis of panic disorder, with or without agoraphobia, according to the DSM-IV criteria; 2) patients suffering from at least one panic attack a week, situational or unexpected, during the three weeks preceding the treatment. The *exclusion criteria* were adopted: 1) diagnosis of schizophrenia, depressive and bipolar disorder, alcohol and drug abuse, somatoform disorder, personality disorder; 2) diagnosis of generalized anxiety, obsessive-compulsive disorder, post-traumatic stress disorder; 3) presence of untreated or chronic disease and medical therapies that may cause panic disorder. The study is based on scores obtained from the clinical self-evaluation scales routinely used during therapy; however, the patients were informed on the use of these data for research and all gave their consent for research participation. No integrated therapy was considered.

Treatment characteristics. 21 PD outpatients, sequentially enrolled on an open naturalistic clinical trial, followed an original HP protocol of 10 weekly individual sessions, according to neo-Ericksonian HP practice [9]. Each patient entered a first 'standardized phase' (five sessions on basic clinical targets: working alliance, trance by direct and indirect hypnotic induction, focus on recent and early stressful life events, eliciting social and personal skills), followed by a second 'personalized phase' (five sessions on specific personal needs and resources: neuro-linguistic techniques and metaphorical approach with direct and indirect trance induction to cope with pathological patterns through an unconscious emotive-cognitive reprocessing). All patients were drug free

18 PD outpatients, enrolled in a controlled, non-randomized clinical trial [10], received 10 weekly sessions, according to Andrews's guidelines for PD treatment [11], following a CP protocol, textbook supported, with standardized sessions (psycho-education focus, relaxation training, behavior and cognitive techniques, problem-solving techniques, conscious cognitive-emotional reprocessing of dysfunctional thoughts and beliefs). All patients were drug free.

Evaluation method

In accordance with empirically supported treatments guidelines [12], HP and CP used the same rating scales and timing of evaluation: at first contact before treatment (baseline assessment), at the end of treatment (treatment assessment) and at the end of a 12-month follow-up period (follow-up assessment). Data were analyzed statistically using the Chi square test with Yates correction and Student's t test.

Patients monitored their own daily panic attack frequency, duration and intensity, and phobic avoidance: this information was recorded on a weekly log. These panic logs were reviewed weekly at each session by the therapist to ensure accuracy of reporting. Moreover, the patients were assessed using patient self-reporting scales, Panic Attack and Anticipatory Anxiety Scale (PAAAS) by Sheehan and Phobia Scale (PS) by Marks & Sheehan for clinical symptomatology, Sheehan Disability Scale (DS) for quality of life.

The HP and CP impact on PD was evaluated as: 1) *treatment response*: ≥ 50% reduction in the score of patient self-reporting symptomatology and of the quality of life scales compared to pretreatment baseline scores (*good response condition or responder patient*); 2) *remission*: absence of panic attacks (*panic free condition or remitted patient*).

The reappearance of panic attacks and/or the need for a psychotherapist or medical help (i.e., administration *ex novo* of medication, extra session of the psychological therapy in the follow-up period) were considered *relapse* in the first 6 months and *recurrence* of disease in the following 6 months.

A voluntary interruption of therapy is considered treatment dropout. The *tolerability* is evaluated as: 1) presence or absence of side effects, assessed by psychiatrist; 2) severity of side effects, assessed by psychiatrist: 1 = mild, no danger, no treatment; 2 = does not significantly interfere with patient's life; 3 = significantly interferes with patient's life; 4 = serious, counteracts the therapeutic effect and requires specific treatment.

The baseline socio-demographic and clinical characteristics of completer patients, compared between HP and CP samples, were well matched for gender, age average and range, marital status, co-diagnosis of agoraphobia, time since diagnosis, family history for psychiatric diseases, age of onset, severity of anxiety rated with Hamilton Anxious Rating Scale by psychiatrist.

Results

Hypnotic psychotherapy alone

Two of 21 enrolled patients leave treatment (dropout rate: 9%). Table I shows the HP response in the 19 completers at the baseline (T0), at the end of treatment (T1) and at the end of 12-month follow-up (F12).

Compared to baseline, the average number of weekly panic attacks evaluated with PAAAS decreases with high statistical significance, respectively, at the end of treatment

(T0 = 10 *vs* T1 = 2; Student's t paired = 4.6; p < 0.0002) and at the end of 12-month follow-up (T0 = 10 *vs* F12 = 0.39; Student's t paired = 5.1; p < 0.0001). Compared to baseline, the average weekly PS score also decreases significantly at end of treatment (T0 = 7 *vs* T1 = 4.3; Student's t paired = 2.3; p < 0.02) and at end of 12-month follow-up (T0 = 7 *vs* F12 = 3; Student's t paired = 3.4; p < 0.002). Moreover, the average weekly DS score decreases significantly from baseline to end of treatment (T0 = 17 *vs* T1 = 8; Student's t paired = 3.4; p < 0.002) and to end of 12-month follow-up (T0 = 17 *vs* F12 = 6.5; Student's t paired = 2.9; p < 0.009).

Comparisons between HP and CP

Clinical response at the end of treatment. Table II shows no statistical differences between the different groups for responder rate in the PAAAS, PS and DS scores (Chi square Test, p ns). By contrast, the panic free condition rate is higher in CP sample (94%) than that in HP sample (47%) with statistically significant difference (CP *vs* HP: Chi square test = 7.1, p < 0.01).

Dropout and tolerability. Table III shows similar low profiles rates for both HP and CP in dropout number and side effect presence.

Clinical response at the end of 12-month follow-up. Table IV shows no changes of statistical relevance can be found in the comparison between HP and CP samples at 12-month follow-up. The PAAAS response rate and the positive impact on phobic behaviors and quality of life were similar in both treatments. By contrast, although the panic free condition index was statistically similar between HP and CP (HP 89% *vs* CP 59%: Chi square test = 3, p ns), their profile of change was different for specific therapy. In HP sample, the panic free condition was found in 9 of 19 patients (47%) after treatment, increasing with statistical significance to 17 of 19 (89%) through the follow-up period (Chi square test = 5.9, p = 0.01). In CP sample, the number of panic free patients decreased long term from 16 of 17 patients (94%) until 10 of 17 patients (59%) without statistical significance (Chi square test = 4, p ns) and maintaining a good response profile compared with CP baseline assessment.

Discussion

The study, the first in Italian literature to our knowledge, shows HP is able to adapt its therapeutic format to the needs of clinical research with good efficacy and tolerability. Using MEDLINE and PSYCHINFO, we searched systematic reviews and meta-analyses of EBM hypnosis validation efficacy published over the last 15 years. We found only one meta-analysis showing HP as EBM effec-

Table I. Response to hypnotic psychotherapy in 19 PD completers.

Variables	Baseline T0 average	Treatment T1 average	t paired T0 *vs* T1	Follow-up F12 average	t paired T0 *vs* F12
PAAAS score	10	2	p < 0.0002	0.39	p < 0.0001
PS score	7	4.3	p < 0.02	3	p < 0.002
DS score	17	8	p < 0.002	6.5	p < 0.009

Table II. Comparison between Hypnotic Psychotherapy (HP) and Cognitive Psychotherapy (CP) at the end of acute therapy of 36 DP patients.

	Treatment	Treatment	Statistical significance
Variables	CP	HP	CP *vs* HP
Completers	17	19	
Panic free	16 (94%)	9 (47%)	p < 0.01
PAAAS responder	17 (100%)	15 (79%)	p NS
PS responders	7 (41%)	8 (42%)	p NS
DS responders	7 (41%)	10 (52%)	p NS

Table III. Tolerability at the end of panic disorder treatment of 36 completers.

Treatment	Patients without side effects	Patients with side effects No. (%)	Severity of side effects 1-2 No. cases	Severity of side effects 3-4 No. cases
CP	15	2 (12)	2	1
HP	17	2 (10)	2	0
TOT	32	4		

Treatment	Completers	Dropouts
CP	17	1 (5%)
HP	19	2 (9%)

Table IV. Comparison between Hypnotic Psychotherapy (HP) and Cognitive Psychotherapy (CP) at the end of 12-months in 36 DP patients.

	Treatment	Treatment	Statistical significance
Variables	CP	HP	CP *vs* HP
Completers	17	19	
Panic free	10 (59%)	17 (89%)	p NS
PAAAS responders	16 (94%)	19 (100%)	p NS
PS responders	10 (59%)	13 (72%)	p NS
DS responders	12 (70%)	14 (72%)	p NS

tive and safe treatment for irritable bowel syndrome [13], but there is no evidence of direct controlled studies comparing HP with drugs and/or other psychological therapies in PD. Adopting the empirically supported treatment (EST) criteria of the American Psychological Association [12], we therefore decided to compare the results on PD of our HP sample with those achieved by CP, as standard of EBM validated treatment commonly recommended in international and Italian guidelines.

First, we used a previous study of CP versus pharmacotherapy [10] as separate control group database to compare HP effectiveness with that of CP. Then, we compared our results with those from the literature of other controlled CP studies compatible with our experimental evaluative design.

Although our findings have limitations in terms of sample size, experimental planning (patients not randomized, no blind evaluations, comparison between two separate open trials) and statistical evaluation (no multivariate statistical analysis), they nonetheless offer a basis for remarks useful in the therapeutic practice.

Quantitatively, our HP protocol, the first used in Italian literature to our knowledge, compared to baseline evaluation, shows a statistically significant reduction in the average number of weekly panic attacks and phobic complications, with an improvement of patient's living quality, at the end of both treatment and follow-up evaluations.

HP maintains and reinforces the good clinical response, progressively improving the panic free condition rate from 47% present after treatment to 89% at follow-up, while CP achieves long-term panic attacks remission in 59% of cases, but loses one third of its acute remission rate (94%).

Acute HP remission rate is similar only to that of CP (53%) reported by Black [14], but is substantially lower than those (87%, 88%, 70%) reported, respectively, by Klosko [15], Clark [16] and Sharp [17] in their CP samples, in line with that (94%) of our CP group.

HP dropout rate (9%; one of two patients suffers from pregnancy complications) is slightly higher than that of our CP group (5%; one patient leaves therapy for extra-clinical reasons) and that of CP (6%) reported by Clark (18), but consistently lower than those of CP (16%, 30% and 36%) reported, respectively, by Klosko) [15], Sharp [17], and Black [14].

Additionally, analyzing a variable often overlooked in clinical studies, HP and CP also produce undesired side effects in our patients, respectively in 10% (2 cases only mild: one for persistent nightmares and insomnia, one for nervousness and muscular tension) and 12% (2 cases for somatic anxious reaction in homework which in one case creates a serious dissociative status). These percentages show HP, like CP, as a treatment well tolerated and recommendable in patients with high clinical history for hypersensitivity to drug side effects and for counter-indications to drugs.

Interestingly, HP brings 89% of patients to panic free condition at follow-up in line with that of CP (85%) in Clark's sample [16], but superior to that (54%) of the CP Sharp's sample [17], and exactly equal to that (59%) of our CP sample.

In general, the clinical cost-benefit of our HP 10-session protocol follows faithfully that of CP 8-12 session protocol, supported in CP meta-analysis studies in terms of EBM effectiveness in 78% of PD treated cases [18,19] and long term stability of results [20].

The high rate of PD relapse and recurrences [1,2] is a well-known problem that needs effective long-term strategies, pharmacological and psychological, for prevention of the disease and its complications. Our results seem to confirm general evidence that a residual PD process, active but hidden below the perceived symptomatological threshold after the end of treatment, could produce long-term relapses or recurrences of PD [2].

In contrast to widespread preconceptions, hypnosis is not authoritarian, passive and centered around the therapist, but a resource- and solution-oriented method in which the focus is on the patient's own potential. Waking suggestions in ordinary communications, restructuring of cognitive-affective patterns and of emotionally stressful events or sensations are the specific keys with which HP opens the door for reintegration of non-accessible (dissociated) feelings, often closed or resistant to change with problem-solving and cognitive mindful techniques.

Qualitatively, first, HP, like CP, has shown a similar ability to elicit affective, emotive and social resources in treated patients, to reprocess negative beliefs, and to implement new adaptive psychosocial skills to cope with stressful life events improving short term the impact of PD.

Second, our findings may indicate the hypothesis that the different patterns of long-term response among the treatments support specific PD subgroups in terms of resistance to change and/or to treatment. This may justify a range of prognoses and of profiles of recurrence rates to different treatments.

HP is able to focus on unconscious emotive memory stored after the impact of old stressful or traumatic experiences [21,22] which create altered states of consciousness dissociated

from cognitive elaboration, but which flood from the past into the cognitive and emotive functions in the present moment [7]. HP works directly on the unconscious mind, without the need for conscious and rational learning. Thanks to this specific mechanism of action, unlike those of drugs and CP, HP could be more effective for management of patient subgroups with high resistance to treatment due to a posttraumatic and dissociative processes history. Our results could be a starting point for further investigations.
This finding may contribute to enrich the field of empirically validated psychological treatments recommendable in national and international Guidelines as alternative strategies to the traditional management of PD [23].

Conclusions

In general, the efficacy-tolerability rate comparisons between HP and CP trials support some general and practical evaluations. Alone, HP shows a long maintenance of PD remitted condition without need of extra support health plans. On the other hand, integrated with another validated therapy, HP could meet clinical indications in the therapeutic plan of specific subgroups, like patients with a high level of resistance to change, with PD recurrence history after an effective CP acute treatment, and with no tolerance to drug side effects.
Pending confirmation from large samples and multivariate statistical analysis, our study, the first experimentally based in Italian literature to our knowledge, seems to indicate HP as a new interesting alternative treatment in the practice guidelines for PD therapy.

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Take home messages for psychiatric care

- Hypnosis is not authoritarian, passive and centered around the therapist, but a resource- and solution-oriented method in which the focus is on the patient's own potential
- Hypnotic psychotherapy, a new hypnotic practice promoted by Erickson's school, is able to adapt its therapeutic format to the needs of panic disorder clinical research with short-term good efficacy and tolerability. Long term, the hypnotic psychotherapy maintains and reinforces the good clinical response and remission outcomes
- Alone or integrated with other panic disorder therapies, like drugs and cognitive psychotherapy, hypnotic psychotherapy could be proposed in acute and long-term treatment of outpatients, with specific indication in cases resistant either to change or to the other evidence based medicine validated treatments

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