Evidence based Psychiatric Care
Journal of the Italian Society of Psychiatry

Società Italiana di Psichiatria

Socioeconomic cost-benefit of an empirical Hypnotic Psychotherapy protocol for Panic Disorder

Alessandro Calzeroni†

European School of Hypnotic Psychotherapy, AMISI, Milan, Italy Brief Integrated Therapy School, Milan, Italy

Alessandro Calzeroni†

The Italian Psychiatric Society and the Editorial Staff of EBPC are grieved to report the Author's disappearance. The article is published as a reminder of his professional scientific commitment.

Summary

Objective. To increase knowledge about the socioeconomic cost- benefit of hypnotic psychotherapy in panic disorder.

Method. Clinical and socioeconomic variables of 6 panic patients with or without agoraphobia treated with hypnotic psychotherapy were evaluated in a first 6-month period before the baseline assessment, in a second 6-month period of treatment, and in a third 6-month post-treatment period of follow-up.

Results. Hypnotic psychotherapy: 1) improves progressively the panic symptomatology compared to the baseline conditions and maintains a stable response ratio in all patients; 2) comparing pre-treatment to follow-up evaluation, decreases the direct costs for drug prescriptions, general practitioner sessions and psychological support; 3) similarly, reduces the indirect costs from 73% of total costs at first evaluation to 51% after treatment, until their absence at follow-up.

Conclusion. Our data suggest hypnotic psychotherapy as a promising strategy for socioeconomic management of panic disorder patients.

Key words: panic disorder, hypnotic psychotherapy, direct and indirect socioeconomic costs

Introduction

Psychotherapy, as an alternative Public Health Service strategy to drug treatment in Panic Disorder (PD), is limited due to its low reliability in terms of a real and sustainable socioeconomic impact and its unpredictable time of individual response in primary [1] and long-term care [2]. All international guidelines have shown Cognitive-Behavioral Therapy (CBT), as a time-limited therapy of 8-12 individual and group sessions, is a best choice for PD treatment. This position is supported by meta-analysis studies in terms of compliance for treatment [3], evidence based medicine (EBM) clinical efficacy [4], long-term stability of results [5] and good cost-benefit ratio [6]. In recent years, Hypnotic Psychotherapy (HP), another time-limited treatment, is proving effective in psychosomatic disorders and promising for long-term remission of PD [7,8].

We evaluated the impact on the socioeconomic costs of the clinical response to a 10-session HP protocol in a pilot sample of 6 patients with PD.

Materials and methods

The first 6 patients randomly enrolled in an open naturalistic trial for the empirical validation of HP effectiveness for PD (diagnosis according to the operative DSM-IV criteria), received both clinical and socioeconomic evaluations.

How to cite this article: Calzeroni A. Socioeconomic cost-benefit of an empirical Hypnotic Psychotherapy protocol for Panic Disorder. Evidence-based Psychiatric Care 2020;6:1-2. https://doi.org/10.36180/2421-4469-2020-06

Correspondence:
Alessandro Calzeroni
amisi@virgilio.it
acalzeroni@gmail.com

The baseline socio-demographic characteristics are: gender (5 females, 1 male), age (average 35.6, range 20-57 years), marital status (3 single, 3 in a couple), education level (5 high school certificate, 1 degree), diagnosis (4 with PD, 2 with PDA), time since diagnosis (average 5.7 years, 2 < 1 year, 2 < 3 years, 2 > 3 years), occupation (1 manager, 2 office workers, 2 students, 1 housewife), family history for psychiatric disease (4 positive, 2 negative), onset of PD (3 early < 25 years old, 3 late > 25 years old), early stressful life events in the first 10 years of life (5 positive, 1 negative).
Five patients were receiving pharmacological therapy (PT): antidepressants (AD), i.e. imipramine, paroxetine (2 cases), citalopram, sertraline and benzodiazepine (BDZ). Three of five patients required a caregiver's support from a family member: in two cases, the need was for a full-time companion; in the other case, the need was for occasional support.

Treatment characteristics

Patients received a basic trial of HP following an original protocol [9] of 10 weekly individual sessions according to the Milton H. Erickson resources-oriented approach [10]. In addition to direct trance induction, focused on the individual's symptoms and resources, patients received indirect techniques, like the use of metaphors and time line perception (the affect bridge).

Evaluation method

The clinical assessment is evaluated with 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 was assessed at baseline (first evaluation), at the end of treatment (second evaluation) and at follow-up (third evaluation). In this analysis HP outcome was evaluated as: 1) *average number of weekly panic attacks* evaluated with PAAAS; 2) *treatment response*: ≥ 50% reduction in the score of patient self-reporting symptomatology scale compared to pretreatment baseline scores (*good response condition or responder patient*); 3) *remission*: absence of panic attacks (*panic free condition or recovered patient*).
The socioeconomic costs of HP were evaluated with an Italian Economic Questionnaire for Psychiatric Services (EQPS) [11], a tool created to measure the Health resources spent by Psychiatric Services [12].
The information provided by individual written self-reporting (concerning socio-demographic and clinical characteristics of patients, characteristics of the primary caregiver, and Health Service resources spent on patient care) creates a complete picture of direct and indirect costs linked to the treatment pathway of patients suffering from PD. The charges for direct Health resources were analyzed following the same criteria used in pharmacoeconomic studies [13,14]. In this way, the individual and specific fees were sourced from Health Service reports published with annual reviews: day hospital admission (€350), psychiatric, psychological and general practitioner sessions (respectively, €54, €55, from €17 to €40), casualty department attendance (€21), psychotherapy protocol sessions (€660 per patient). The cost of drugs prescribed comes from the 'Guida per l'uso dei Farmaci', the Italian version of the British National Formulary, published in 2004.
The evaluation of indirect costs of the different non-Health resources is more complex and controversial. There are 'formal' and measurable costs, like working days lost by patient and caregiver, or unemployment, and 'informal' and variable costs, like time spent by caregivers on activities to support unpredictable needs of patients. We decided to analyze only the measurable indirect non-Health costs, specifically the working days lost by both patients and caregivers (€84 per day) estimated on the basis of average Italian salary value and unemployment rates [12].
Direct and indirect socioeconomic costs were evaluated for the 6 months preceding HP (first evaluation), the 6 months comprising treatment (second evaluation) and the 6 months of follow-up (third evaluation).

Results

Table I summarizes the results of HP clinical effectiveness and consumption of Health and non-Health resources.
Table II converts the resources spent by PD patients on socio-economic direct or indirect costs into money (euro) with the rate applied in the 2005-2006 period, in line with Tarricone's recommendations [3].

Discussion

The first evaluation reports the baseline clinical condition as average number of panic attacks (7.3) of the group in the week before the treatment and the socioeconomic costs spent in the 6-month period before the treatment. The analysis of the second evaluation, at the end of the 6-month period spent comprising treatment, registers a decrease in the average number of group weekly panic attacks (to 1), an acute response condition (reduction ≥ 50% of panic attacks compared to their number at first evaluation) in all patients and a panic free condition in two patients (2/6, i.e. 33%). No undesired side effects were recorded in 4 patients, while in two cases mild side effects not requiring therapeutic support (temporary insomnia and headache) were found. The third evaluation, at the end of the 6-month follow-up, reports 4 panic free in 6 patients (i.e. 66%), a stable response ratio in all patients, and a further decrease in the average number of group weekly panic attacks (to 0.5).
Health resources spent on clinical management of disease change dramatically after the treatment. There are reductions in hospital admissions (from 1 to 0), psychiatric and medical sessions (respectively, from 17 to 0, from 7 to 1), prescribed medication for 3 of 5 patients with drugs

Table I.

Health Resources	1st evaluation	2nd evaluation	3rd evaluation
	(n = 6 subjects)	(n = 6 subjects)	(n = 6 subjects)
Hospital admissions no.	1	0	0
Psychiatric sessions no.	17	0	1
Psychological sessions no.	12	72	2
General practitioner sessions no.	7	1	3
Casualty Dept. attendance no.	1	1	1
Drug prescribed AD	5	3	3
Drug prescribed BDZ	5	3	2
Non-Health Resources			
Working days lost (patient)	89	60	0
Working days lost (caregiver)	38	0	0
HP effectiveness: aver-age panic attacks	7.3	1	0.5
Responder *vs* recovered condition		6 (100%) *vs* 2 (33%)	6 (100%) *vs* 4 (66%)

Table II.

Health Resources	1st evaluation	2nd evaluation	3rd evaluation
	(euro)	(euro)	(euro)
Hospital admissions	350	0	0
Psychiatric sessions	918	0	54
Psychological sessions	660	3,960	110
General practitioner sessions	204	17	51
Casualty Dept. attendance	21	21	21
Drug prescribed AD + BDZ	1,820	955	381
Total Direct Costs	3,973	4,953	617
Non-Health Resources			
Working days lost (patient)	7,476	5,040	0
Working days lost (caregiver)	3,115	0	0
Total Indirect Costs	10,591	5,040	0
Total Direct + Indirect Costs	14,564	9,993	617

combined with HP (2 patients become drug free). Naturally, the psychological direct costs increase with the number of psychotherapy protocol sessions (from 12 to 72). In the same period, the non-Health resources decrease for working days lost (from 89 to 60) and more significantly for cases needing caregiver assistance (from 38 to 0).

The absence of relapse of PD recorded in the follow-up evaluation produce: 1) reduction in clinical needs (only 1 psychiatric session to monitor drug dosage, 3 ordinary check-ups with practitioner); 2) reduction of medication prescriptions (2 patients with antidepressant and 2 with benzodiazepine reduce daily dosage by 50%, one patient stops benzodiazepine consumption); 3) return to regular working life (no days lost for patients and caregivers); 4) full patient autonomy (no further need for caregiver assistance).

After an effective HP treatment, the direct Health needs decrease significantly with 50% of patients drug free, and the non-Health need for caregiver's assistance halts completely. The 6-month follow-up period shows that the number of clinical needs (medical and psychological) decreases dramatically and the working days lost for PD cease completely. Expressed in monetary terms, specifically, we can see drug prescription is the biggest variable for the total direct costs (46%) in the first evaluation, while in the second evaluation the cost of HP protocol is dominant (86%).

Full evaluation of treatment costs does not stop with the end of the therapeutic period, but must also include follow-up costs. The comparison between the pre-treatment evaluation and that at the end of 6-month follow-up shows the real and strong economic impact of HP.

In practice, comparing pre-treatment to follow-up evaluation, total direct costs decrease dramatically for drug prescriptions (from €1,820 to €381), general practitioner sessions (from €204 to €51) and psychological support (from €660 to €110). Similarly, the indirect costs are 73% of total costs at first evaluation, decrease to 51% after treatment and are absent at follow-up. Thus, the absence of relapse of PD registered in the follow-up evaluation period reduces the total direct/indirect costs of the pre-treatment baseline evaluation by 96% (€14,564 *vs* €617). In other words, the follow-up evaluation suggests that the clinical short- and long-term effectiveness of HP compensates all socioeconomic costs of the therapeutic management of the disease, restoring full autonomy in regular family and working life.
Interestingly, this profile of good socioeconomic response is strikingly similar to that demonstrated by Cognitive Psychotherapy (CP) [15] in a sample of 7 PD patients treated in public Psychiatric Service. The CP group protocol, in accordance with Andrews's practice, was similar to our HP protocol in enrollment criteria, numbers of therapeutic sessions (ten), and evaluation monitoring methods for clinical and socioeconomic variables.

Conclusion

Our results reflect the power of any effective therapy in the specificity of the Italian cost of living and socio-economic context. Nevertheless, HP, like CP, has a positive socioeconomic impact on PD management. Our approach and outcomes could stimulate studies in larger analyses and in the global scenario to seek empirical confirmation in future studies.

References

1 Rollman BL, Belnap BH, Mazumdar S, et al. A Randomized Trial to Improve the Quality of Treatment for Panic and Generalized Anxiety Disorders in Primary Care. Arch Gen Psychiatry 2005;62:1332.

2 Bell, S, Clark, D, Knapp, M, et al. The Depression Report: a new deal for depression and anxiety disorders. London: London School of Economic 2006.

3 Ost LG. Efficacy of the third wave of behavioral therapies: A systematic review and meta-analysis. Behav Res Ther 2008;46:296-321.

4 Caselli G, Manfredi C, Ruggiero GM, et al. La terapia cognitivo-comportamentale dei Disturbi d'Ansia: una revisione degli studi d'efficacia. Psicoter Cogn e Comportamentale 2016;22:81-101.

5 Norton PJ, Price EP. A meta-analitic review of cognitive-behavioral treatment outcome across the anxiety disorders. J Psychiatr Res 2007;27:61-8.

6 Laynard R, Clark D, Knapp M et al. Cost-benefit analysis of psychological therapy. National Institute Economic Review 2007;202:90-8.

7 Alladin A, Sabatini L, Amundson JK. Evidence-Based Practice in Clinical Hypnosis. Int J Clin Exp Hypn 2007;55:115-30.

8 Breid D. Treating panic disorder hypnotically. Am J Clin Hypn 2017;60:137-48.

9 Calzeroni A, Mosconi GP. Psicoterapia ipnotica: l'approccio neoericksoniano per la cura del DAP. In: Rovetto F, ed. Panico. Roma: Il Pensiero Scientifico Editore 2003.

10 AMISI. Hypnosis, Hypnotic psychotherapy and 'neoericksonian' principles: a Theoretical Didactic Manifesto, Update. 2016/2 issue of ESH Newsletter, p. 14.

11 Percudani M. Valutare i costi nell'attività clinica di routine dei Servizi Psichiatrici. Sviluppo e applicazione di uno strumento ad hoc. Epidemiologia e Psichiatria Sociale 2000.

12 Tarricone R, Gerzeli S, Montanelli R, et al. Direct and indirect costs of schizophrenia in community psychiatric services in Italy. The GISIES study. Health Policy 2000;51:1-18.

13 Salvador-Carulla L, Segui J, Feranandez-Cano P, et al. Costs and offset effect in panic disorder. Br J Psychiatry 1995;116:23-8.

14 Rice DP, Miller LS. Health economics and cost implications of axiety and other mental disorder in the United States. Br J Psychiatry 1998;173:4-9.

15 Calzeroni A, Percudani M. Analisi dei costi diretti ed indiretti generati da soggetti con disturbo da attacchi di panico prima e dopo un trattamento psicoterapeutico di gruppo. In: Il trattamento cognitico-comportamentale dei disturbi d'ansia: dal protocollo sperimentale alla psicoterapia per il servizio pubblico. Regione Lombardia 2001, pp. 149-153.