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Brief report

Intensive behavioral therapy for agoraphobia

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ABSTRACT

Background: We investigated the efficacy of an intensive 1-week behavioral therapy program focusing on agoraphobia for panic disorder patients with agoraphobia (PDA).
Design and methods: The study design was a case-control study. Main outcome measure was the agoraphobia score of the Fear Questionnaire (FQ-AGO). The outcomes on the FQ-AGO of a 1-week intensive therapy (96 patients) and a twice-weekly therapy (98 patients) were compared.
Results: Agoraphobia improved significantly in both groups, 1 week and 3 months after therapy. Effect size for changes in the 1-week intensive therapy on the FQ-AGO was 0.75.
Limitations: Limitations are use of antidepressants, no placebo group, and no long term follow-up.
Conclusion: Behavioral therapy for agoraphobia can be shortened significantly if intensified without affecting therapy outcome, thus allowing patients a more rapid return to work and resumption of daily activities.

1. Introduction

Panic disorder with agoraphobia (PDA) is an invalidating condition that causes high health care consumption (Barsky et al., 1999; Lepine, 2002; Roy-Byrne et al., 2002, 1999, 2005; Smit et al., 2009; Zaubler and Katon, 1998). It is associated with higher societal costs compared to other mental disorders regarding direct medical, direct non-medical and indirect non-medical costs (Rees et al., 1998). These costs are even higher if panic disorder is accompanied by agoraphobia (Batelaan et al., 2007). Several effective therapies are now available for agoraphobia (Sanchez-Meca et al., 2010), mainly cognitive and behavioral therapy (CBT). It is clear that the shorter the duration of the therapy, the sooner the patient return to his or her normal daily activities, including work.

The present study describes the efficacy of a brief, intensive, and clinician-guided exposure program for severe agoraphobia and compares it to a form of behavioral therapy involving twice-weekly contacts with a therapist.

2. Methods

2.1. Subjects

The sample consisted of 194 patients who were recruited from the Academic Anxiety Centre in Maastricht, an outpatient clinic in the Netherlands. Diagnosis according to DSM IV criteria was made by an experienced psychiatrist via psychiatric interview. Only patients with panic disorder with severe agoraphobia as primary diagnosis were included. Exclusion criteria were being on psychotropic medication (with the exception of antidepressants), severe depressive disorder, suicidal intent, psychosis, substance abuse or cognitive impairment.

Of the 194 patients, which were included in the study, 96 PDA-patients completed the 1-week in vivo exposure-based behavior therapy program for PDA. This was the experimental group. The matched, historical-control subjects were 98 PDA-patients who completed a twice-weekly therapy program that formerly was the regular treatment at our Academic Anxiety Center.

The study design was a case-control study. The case group consisted of 96 patients. The control group was obtained using data from patients who followed therapy before the introduction of the intensive program. Data from those 98 PDA patients were selected after matching for age, sex, co-morbidity and the use of antidepressants (the antidepressant compound distribution among the 2 treatment groups was as follows, case group and control group respectively: fluvoxamine, 23 and 23; paroxetine, 51 and 51; clomipramine 1 and 1; sertraline 3 and 1, fluoxetine 3 and 1, moclobemide 1 and 3; citalopram, 4 and 0; trazodone, 1 and 0; desipramine, 0 and 2). All medication was kept constant, according to the treatment protocol.

Of the 98 patients in the control group, 69 were women and 29 were men. The mean age was 40.01 ± 10.68. Of those 98 patients, 89 patients were taking an antidepressant and 27 patients had a concurrent psychiatric disorder, 13 patients had depressive disorder,

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4 patients had dysthymic disorder, 1 patient had specific phobia and the rest of the 27 patients had combinations of comorbidity (such as depressive disorder and social phobia).

Of the 96 patients in the case group, 73 were women and 23 were men. The mean age was 37.98 ± 9.09. Of those 96 patients, 83 patients were taking an antidepressant and 28 patients had a concurrent psychiatric disorder, 14 patients had depressive disorder, 1 patient had obsessive compulsive disorder (OCD), 1 patient had specific phobia and the rest of the 28 patients had combinations of comorbidity (such as depressive disorder, social phobia, OCD).

2.2. Procedures

The diagnosis of PDA was established in a clinical interview by an experienced psychiatrist following the criteria of the DSM-IV (American Psychiatric Association, 2000). Patients also had a medical history inventory and an evaluation through the Mini International Neuropsychiatric Interview (Sheehan et al., 1998) to support the diagnoses.

Psychometric evaluation involved the Fear Questionnaire (FQ) (Marks and Mathews, 1979), the Clinical Anxiety Scale (CAS) (Snaith et al., 1982), and the Montgomery–Åsberg Depression Rating Scale (MADRS) (Montgomery and Asberg, 1979). The FQ measures phobic avoidance on three subscales on agoraphobic, social phobic and blood-injury related avoidance (Cox et al., 1995; Marks and Mathews, 1979). Only the total FQ-score (FQ-tot, range 0–120) and the score of the subscale 'agoraphobia' (FQ-AGO, range 0–40) were included in the present study. The research nurse who administered the psychometric scales was not involved in delivering the therapy.

The treatment under investigation was the 1-week in vivo exposure-based behavior therapy program ('the case group') which consisted of 5 full consecutive days of cognitive behavioral therapy. Patients stayed in an overnight accommodation, while their days were devoted to exposure to several agoraphobic situations. First, the patient received psycho-education on panic disorder and agoraphobia as well as the rationale of exposure therapy. At the beginning, exposure was conducted under full coaching by a behavioral therapist. The coaching was gradually reduced during the week.

The control condition ('the control group') was a twice-weekly therapy program, which consisted of 12 sessions exposure therapy sessions, spread over 6 weeks. The focus of both forms of treatment was on the element of exposure (Sanchez-Meca et al., 2010).

Both therapies included homework and a follow-up program. By practice in their home/daily environment, patients learned to integrate their experiences in other more natural contexts where they used to avoid feared situations. The same therapists trained in behavioral therapy conducted both therapies. All therapy was delivered individually. The amount of face to face time with a therapist did not differ substantially between groups: 23 h in the intensive group versus 23 in the comparison group. Psychometric data were gathered 1 week before and 1 week after treatment and 3 months after.

2.3. Data analysis

Data were analyzed using repeated-measures analysis of variance (ANOVA) with time as the within-subjects factor and type of therapy as the between-subjects factor. The effect size was calculated for FQ-AGO changes in the intensive group. The results were based on a last observation carried forward analysis.

3. Results

Outcome scores before, 1 week after, and 3 months after therapy are shown in Table 1. Scores of the MADRS and CAS at pre-treatment were significantly higher in the case group. Pre-treatment scores of FQ-tot and FQ-AGO did not differ significantly between groups.

ANOVA of the FQ-AGO scores before, 1 week after, and 3 months after therapy showed a significant improvement in both groups, as can be seen in Fig. 1. Effect size for changes in the case group on the FQ-AGO was 0.75. Time*group interactions were not significant for the FQ-AGO.

With regard to the FQ-tot, the MADRS, and the CAS, ANOVA showed a significant improvement in scores on all scales in both groups. Time*group interactions were not significant for the FQ-tot or the MADRS, but they were significant for the CAS, with a stronger improvement in the case group.

4. Limitations

Several limitations of our study need to be mentioned. First, some of the patients were taking an antidepressant. Hence, symptoms were still present in spite of medication. We therefore cannot completely exclude the possibility that medication status may affect treatment outcome. However, an effect of medication is rather unlikely, given that patients were on a constant dosage for 2 months prior to inclusion and medication was kept constant during treatment. Moreover, subjects in the control group were matched on the use of antidepressants. Second, no placebo group was incorporated. Third, since the follow- up data are limited to 3 months, it is not possible to evaluate treatment effect beyond this period. Both therapy programs however, included homework, leading to generalization of fear extinction by extending the treatment out of the therapeutic context, thereby contributing to a more profound treatment effect (Sanchez-Meca et al., 2010). Fourth, patients were not randomly allocated to one of the two treatment programs. However, the data of the control group were selected after matching for age, sex, co-morbidity, and the use of antidepressants.

Table 1
Outcome scores before, 1 week after, and 3 months after therapy.

	Case group			Control group		
	Pre-treatment	Post-treatment	3-months after therapy	Pre-treatment	Post-treatment	3-months after therapy
MADRS	13.0 (6.1)	7.4 (6.0)	7.1 (6.0)	9.2 (7.7)	4.5 (5.7)	4.5 (5.4)
CAS	11.6 (4.4)	5.5 (4.5)	5.4 (4.8)	7.9 (5.5)	3.7 (4.2)	3.6 (4.3)
FQ-tot	52.4 (21.6)	20.4 (14.3)	19.3 (15.9)	57.8 (21.1)	27.2 (21.7)	27.2 (23.0)
FQ-AGO	25.0 (9.8)	5.6 (6.5)	5.5 (10.0)	27.6 (9.0)	9.6 (10.3)	9.9 (10.7)

MADRS: Montgomery–Åsberg Depression Rating Scale; CAS: Clinical Anxiety Scale; FQ-tot: Fear Questionnaire total score; FQ-AGO: Fear Questionnaire 'agoraphobia' subscale score.