Verhaltenstherapie
Praxis | Forschung | Perspektiven

Research Article · Originalarbeit

(English Version of) Verhaltenstherapie
DOI: 10.1159/000492193

Published online: November 15, 2018

Intensive Exposure-Based Treatment of Anxiety Disorders in a Specialized Patient-Centered Day Hospital

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Keywords
Anxiety disorders · Exposure therapy · Cognitive-behavioral therapy · Routine clinical practice · Day hospital

Summary
Background: Anxiety disorders are highly prevalent, often chronic, but effectively treatable by cognitive-behavioral therapy, especially by exposure therapy. However, exposure treatments rarely occur in outpatient healthcare. The Anxiety Day-Hospital at the University Hospital Dresden implemented an evidence-based treatment. Every week, 4 guided exposure sessions, not time-limited, were conducted during the 5-week treatment period. Improvements in symptomatology and response rates were examined. **Methods:** The symptomatology of n = 332 patients, treated from 2009 till 2015, was assessed at pretreatment and posttreatment, and at the follow-ups after 3 months and 1 year. Two-thirds had previously had other psychotherapy treatments. Established questionnaires were used. Data was analyzed by calculating mixed models, effect sizes, and response rates. **Results:** 90% of the patients finished the treatment regularly. Significant improvements occurred in anxiety and depressive symptoms. The strongest effect sizes of about 0.9 were achieved for behavioral scales, especially for symptoms of agoraphobia and panic disorder, the most frequent disorders in the sample. The response rate was 60%. Improvements remained stable at the follow-ups and even increased further for cognitive symptoms. **Conclusions:** Specialized day-hospital settings, like the one presented here, are associated with good to very good and stable improvements and also with good acceptance. These therapeutic settings require specific structural equipment and resources.

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Schlüsselwörter
Angststörungen · Expositionstherapie · Kognitive Verhaltenstherapie · Versorgungsforschung · Tagesklinik

Zusammenfassung
Hintergrund: Angststörungen sind häufig, oft chronifizierend, jedoch auch gut behandelbar. Leitlinienbehandlung ist die auf Exposition fokussierende Verhaltenstherapie. In der ambulanten Versorgungspraxis finden Expositionen jedoch selten statt. Die Angst-Tagesklinik am Universitätsklinikum Dresden realisiert die evidenzbasierte Behandlung von Angststörungen. In einer 5-wöchigen Kurzzeitbehandlung werden wöchentlich 4 begleitete und zeitoffene Expositionssitzungen durchgeführt. Untersucht wurden die Symptomverläufe und die Responder-Raten. **Methoden:** Zu Therapieaufnahme und -ende sowie zur Katamnese nach 3 Monaten und 1 Jahr wurde die Entwicklung der Symptombelastung bei n = 332 PatientInnen untersucht, die von 2009 bis 2015 behandelt wurden. Etwa zwei Drittel waren psychotherapeutisch vorbehandelt. Eingesetzt wurden spezifische etablierte Fragebögen. Berechnet wurden Mixed Models, Effektstärken und Responder-Raten. **Ergebnisse:** 90% der PatientInnen schlossen die Behandlung regulär ab. Es zeigten sich signifikante Linderungen bei Belastungen durch Angst- und depressive Symptome. Die höchsten Effektstärken um 0,9 ergaben sich bei verhaltensbezogenen Skalen und besonders bei den Agoraphobien und Panikstörungen, die die größte Störungsgruppe ausmachen. Die Responseraten lagen bei 60%. Zu den Katamnesezeitpunkten waren die Symptomverbesserungen stabil und bei den kognitiven Symptomen weiter steigend. **Schlussfolgerungen:** Die Behandlung in spezialisierten (teil)stationären Versorgungssettings mit Fokus auf hochfrequente Exposition, wie hier beispielhaft vorgestellt, zeigt eine gute Akzeptanz und gute bis sehr gute und längerfristig stabile Veränderungen der Symptombelastung. Diese Settings erfordern eine besondere strukturelle Ausstattung und Ressourcen.

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Background

At the University Hospital of TU Dresden, the Anxiety Day-Hospital of the Institute and Outpatient Clinics of Psychotherapy and Psychosomatic Medicine has since 2009 been implementing intensive, theory-based treatment of anxiety disorders, focused on exposure. Anxiety disorders, which are the most common mental disorders [Jacobi et al., 2014], and are associated with significant individual impairment [Wittchen et al., 2011] as well as social and socio-medical costs [Badura et al., 2014; Gustavsson et al., 2011], are eminently treatable with cognitive behavioral therapy [Bandelow et al., 2014]. In addition to proof of effectiveness in many controlled clinical trials [e.g., Norton and Price, 2007; Wolitzky-Taylor et al., 2008; Rosa-Alcazar et al., 2008; Cuijpers et al., 2014; Powers et al., 2008; Ruhmland and Margraf, 2001a–c], long-term studies in outpatient care settings also show good to very good and stable changes in symptom burden [e.g., Klan and Hiller, 2014; Hans and Hiller, 2013]. These studies were mainly done in university outpatient clinics, however, and might thus underestimate the proportion of inadequate courses of therapy in private practice. There are clear indications of difficulties in acceptance [Neudeck and Einsle, 2010] and implementation [Roth et al., 2004; Külz et al., 2010; Böhm et al., 2008] of accompanied exposures.

According to the Directive on the Regulation of Hospital Treatment on the Primacy of Outpatient Treatment [Gemeinsamer Bundesausschuss, 2015], for example, unsuccessful or unavailable outpatient psychotherapy is an indication for treatment in a day-care setting. This, as described below with reference to the Dresden Anxiety Day-Hospital, provides higher-dose treatment compared to outpatient psychotherapy, and is characterized by multi-modality, multi-professionalism of the practitioners, and a therapeutic milieu characterized by group cohesion [Köllner and Senf, 2010]. For anxiety disorders, semi-residential treatment makes possible, as described by Wambach and Rief [2012], a higher dosage and greater frequency of exposures in the company of a therapist, which improves effectiveness [Abramowitz et al., 2011]. A multi-professional team of therapists and multimodal treatment also allow for medical and nursing care, as well as the use of many different therapeutic procedures in addition to the exposure sessions – exercise therapy and mindfulness-based interventions – at the Dresden Anxiety Day-Hospital. The day-care treatment in a favorable clinical environment makes it possible to reduce dysfunctional withdrawal. Not least, a favorable therapeutic milieu and a therapeutic community in a patient group can help to provide motivation for change, through processes of group cohesion as well as through continuous updating of therapy topics and exchange of views among patients about their progress and difficulties during treatment. At the Dresden Anxiety Day-Hospital, patients complete the 5-week therapy in closed groups.

The 5-week treatment at the Dresden Anxiety Day-Hospital proceeds in 2 phases. During the first phase in week 1, there are 4 psychoeducative group sessions. Here, the therapy rationale is explained, based on the therapeutic manual by Lang et al. [2012] for the cognitive behavioral treatment of panic disorder and agoraphobia, which is by far the most frequently treated disorder at the Dresden Anxiety Day-Hospital. The main topics are general psychoeducation about anxiety, including its components and functions, decatastrophizing of bodily symptoms, the concept of the barrel model, the perpetuating character of avoidance and safety-seeking behaviors, and a scheme of pros and cons for exposure. The individual psychoeducation and development of a disorder profile are continued in parallel in 4 one-to-one sessions and are individually modified for the particular disorder, based on Lakatos and Reinecker [2016] for obsessive-compulsive disorder, Stangier et al. [2009] for social phobia, Becker and Margraf [2002] for generalized anxiety disorders, and Hamm [2006] for specific phobias.

Starting in the second week and following a decision by the patients, exposure with anxiety is performed weekly with up to 4 individual exposure sessions, not time-limited, in the company of a therapist, and in different in vivo contexts. The treatment during the exposure phase coincides with, among other things, 4 weekly group sessions at which the patients exchange experiences from their exposure sessions for example, or work through a specific topic in group therapy, in an open-ended way and based on Fiedler's [2005] approach. An intensive, high-frequency and thus comparatively short treatment period creates the possibility to implement the special staffing requirements described by Bandelow et al. [2016] and to work with an adequate therapist-patient ratio. This amounted to an average of 1:2.2. While a standard treatment allows a maximum of 16 non-time-limited individual exposure sessions, an average of 14.0 non-time-limited exposures are performed. In addition, special expertise and equipment are being developed for the practical implementation of exposure sessions, such as an isolated and darkened panic room, as well as a reservoir of materials, devices, and instruments for various, e.g., interoceptive exposures. It is also possible to perform car-driving exposures in the company of a therapist, as well as to collaborate with other departments at the University Hospital, e.g., for exposures to dental or medical treatments.

Before treatment in the day hospital, there is always a day of semi-residential trial therapy, with thorough psychological and somatic diagnostics, indication testing, communication of the treatment's concept and rationale, as well as verifying and encouraging motivation for treatment and change. The day-hospital treatment module continues to be embedded in preparatory sessions and follow-up care. There is an opportunity to participate in an outpatient psychotherapeutic preparation group beforehand. After the intensive treatment, patients may participate in the outpatient psychotherapeutic follow-up care group or receive individual psychotherapy at the outpatient clinic. Further treatment is also sometimes initiated externally by the hospital. Support for changes in a difficult life situation is often one of the objectives of outpatient follow-up care. If the behavioral therapy approach has not proven effective, psychodynamic treatment is often used. A more precise idea of the treatment concept and -setting of the Dresden Anxiety Day-Hospital can be found in Beiling et al. [2017].

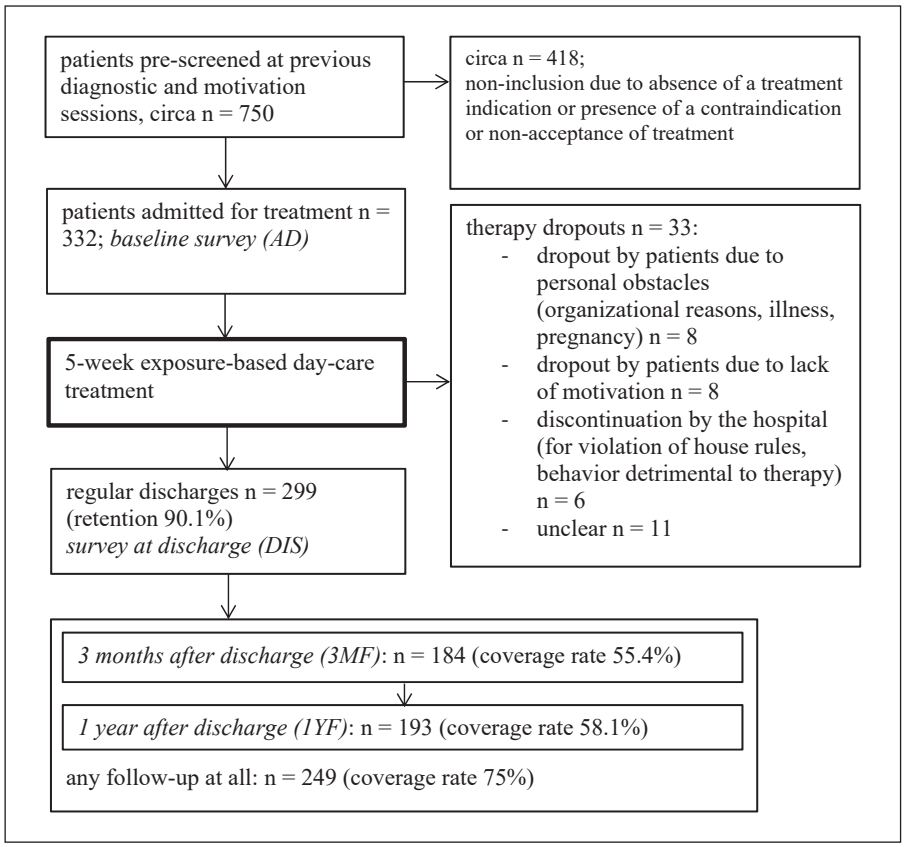

Fig. 1. Patient flow chart of the Dresden Anxiety Day-Hospital with points of data collection, time span from January 2009 to November 2015.

Methodology

Study Design

A retrospective longitudinal study is presented to identify the short- and long-term changes in symptom burden during an evidence-based, guideline-appropriate short-term treatment in a day hospital for anxiety and obsessive-compulsive disorder with a naturalistic care setting, the Anxiety Day-Hospital at the University Hospital Dresden. Patients received an intensive, 5-week, exposure-focused treatment program in closed groups. A questionnaire on the burden and impairment of the patients was administered at 4 measurement points: at the beginning of treatment, at the end of treatment, 3 months after discharge, and 1 year after discharge. After an explanation of the process, the patients agreed to the scientific use of the data collected. The ethics committee of the Technical University Dresden approved the project (EK494122016). Figure 1 shows the patient flow chart with measurement points.

Sample

The study included all n = 332 patients who had received treatment between January 2009 and November 2015. The patients sought treatment through the usual access paths of the Institute and Outpatient Clinics of Psychotherapy and Psychosomatic Medicine of the University Hospital Dresden, mostly through self-initiated contact or referral from external specialists or family physicians. The treatment indications and contraindications of all patients were checked during a 1-day session of diagnosis and motivation prior to admission for day care. Treatment indications were an anxiety or obsessive-compulsive disorder, being of legal age, a previously unsuccessful course of outpatient psychotherapy or unavailability of outpatient psychotherapy, and willingness to participate in a confrontation-focused day-care treatment program. Contraindications were psychotic disorders, a severe tendency towards dissociation or intrusion that would prohibit exposure treatment, as well as somatic contraindications for exposure therapy, as described, for example, by Voderholzer et al. [2014]. In the case of substance dependence disorders, long-term abstinence was checked prior to therapy. During the evaluation period, about n = 750 patients, retrospectively calculated, were examined at these day-long diagnostic and motivation sessions, with 2–3 patients per week and 42 weeks of such diagnostic sessions per year. All patients who met the inclusion criteria and failed to meet the exclusion criteria were offered treatment. About 44% of the patients examined ultimately came for treatment; precise data on reasons for non-admission are not available.

The patients presented here, in the treatment sample of the Anxiety Day-Hospital, were relatively young. In accordance with epidemiological data on the gender distribution of anxiety disorders, more women than men began the treatment. The treatment sample corresponds approximately to the general population in the distribution of socio-demographic factors, with a slightly higher factor of unemployment. Table 1 shows selected socio-demographic characteristics of the sample.

About half of the patients came to treatment with 'disability' status, with an average of about 6 months of disability. A current claim for an invalidity pension was rarely mentioned. About two-thirds of the patients reported that they had received a psychotherapeutic treatment in the past, primarily outpatient treatment. Table 2 shows selected social-medical characteristics of the sample.

At the beginning of treatment, a standardized diagnosis of mental disorders was performed by trained interviewers using the Structured Clinical Interview for DSM-IV, Axis I and II (SCID I and II; DSM = Diagnostic and Statistical Manual of Mental Disorders) [Wittchen et al., 1997]. Agoraphobia with panic disorder was by far the most common mental disorder leading to treatment. Next to this came isolated panic disorder, social phobias, and specific phobias, in about equal proportions. In the case of the specific phobias, the most common treatment concern was related to job functioning, such as debilitating anxiety about claustrophobic situations (tunnels or tight spaces) or heights, as well as emetophobia. Comorbid mental disorders were particularly common in the sample, as only a third of the patients had a singular diagnosis. The most common comorbidities were mood disorders. Table 3 shows the results of the standardized clinical diagnostics, with type and frequency.

Table 1. Socio-demographic characteristics of n = 332 patients (January 2009 to November 2015) at the Anxiety Day-Hospital at the University Hospital Dresden

		Total[a]	
		n	%
Age, years	M (SD)[b]	37.41	(13.06)
Gender	female	215	64.8
	male	117	35.2
Partnership (n = 316)	stable partner (married)	107	33.9
	stable partner (unmarried)	134	42.4
	changing partners	7	2.2
	no partner	68	21.5
Secondary school diploma (n = 319)	Haupt-/Volksschulabschluss	42	13.1
	Realschulabschuss/Mittlere Reife	168	52.7
	Fachabitur/Abitur	99	31.0
	other	5	1.6
	no graduation	5	1.6
Occupational status (n = 286)	in training	24	8.4
	employed, full-time/part-time	160	55.9
	unemployed	57	19.9
	retired	20	7.2
	not working/other	25	8.6

[a]n varies for some variables due to missing values.
[b]Mean (standard deviation).

Table 2. Social-medical characteristics of n = 332 patients (January 2009 to November 2015) at the Anxiety Day-Hospital at the University Hospital Dresden, at the beginning of treatment

		Total[a]	
		n	%
Ability to work (n = 307)	unable to work	149	48.5
	duration in weeks, M (SD)b (n = 122)	23.71	(35.77)
Current pension plan (n = 304)	current pension application	7	2.3
	temporary pension	3	1.0
Prior treatments	outpatient and/or inpatient/day-care (n = 179)	116	64.8
	number of prior outpatient treatments (n = 178)		
	none	71	39.9
	1	74	41.6
	2	24	13.5
	3 or more	9	5.1
	prior day-care or inpatient treatments (n = 173)		
	psychosomatic/psychotherapeutic	33	19.1
	psychiatric	28	16.2

[a]n varies for some variables due to missing values.
[b]Mean (standard deviation)

Instruments

The following self-rating instruments were used to assess symptom burden at all 4 measuring points:

The Panic and Agoraphobia Scale (PAS) [Bandelow, 1997] was developed for assessment of therapeutic success in the treatment of panic disorder and agoraphobia, and is considered a standard measure for assessment of treatment effects. There are 5 areas included: panic attacks, agoraphobic avoidance, anticipatory anxiety, impairment, and health fears. The patient is asked about symptoms and impairments over the previous week. Values between 0 and 8 are scored as borderline or in remission; values between 9 and 18 are rated as mild, values between 19 and 28 as moderate, values between 29 and 39 as severe, and 40 points or more as very severe symptoms. The internal consistency, in external assessment and self-assessment, lies between 0.85 and 0.86 (Cronbach's alpha).

The questionnaire on body-related Anxieties, Cognitions, and Avoidance (Ängsten, Kognitionen und Vermeidung; AKV) [Ehlers and Margraf, 2001] consists of 3 questionnaires and is the German version of the Body Sensations Questionnaire (BSQ) [Chambless et al., 1984], the Agoraphobic Cognitions Questionnaire (ACQ) [Chambless et al., 1984], and the Mobility Inventory (MI) [Chambless et al., 1985]. The BSQ captures the level of anxiety about interoceptions in anxiety-provoking situations or in a state of nervousness. The ACQ records the frequency of typical anxiety-related thoughts during the sensation of anxiety and nervousness, with separate indication of the factors 'physical crisis' and 'loss of control'. The MI assesses avoidance behavior in various agoraphobic situations. Avoidance behavior can be assessed separately, depending on whether the exposure situation is experienced alone or accompanied by someone else. Higher scores indicate a higher level of anxiety-related cognitions, anxiety about physical symptoms, and avoidance behavior. All 3 scales show satisfactory to high internal consistency (Cronbach's alpha 0.74–0.95).

The Brief Symptom Inventory 18 (BSI-18) [Franke et al., 2011] is the short version of the BSI-53, which in turn was developed as a short version of the

Table 3. Diagnosis of mental disorders in 331 of the n = 332 patients (January 2009 to November 2015) at the Anxiety Day-Hospital at the University Hospital Dresden[a]

Diagnoses[b]		Total	
		n	%
Anxiety and obsessive-compulsive disorder	panic disorder	60	18.1
	agoraphobia with panic disorder	237	71.4
	agoraphobia without panic disorder	11	3.3
	social phobia	48	14.5
	specific phobia	51	15.4
	generalized anxiety disorder	10	3.0
	obsessive compulsive disorder	24	7.2
Comorbid disorders	affective disorders	155	46.8
	substance-related disorders	37	11.2
	somatoform disorders	22	6.6
	post-traumatic stress disorder	17	5.1
	personality disorders	10	3.0
	eating disorders	4	1.2
	other	9	2.7
Number of diagnoses	M (SD)[c]	2.09	(1.12)
	1 diagnosis	119	36.0
	2 diagnoses	112	33.8
	3 diagnoses	63	19.0
	4 or more diagnoses	37	11.2

[a]Standardized diagnostics. Multiple diagnoses possible.
[b]Assessment with SCID-I and SCID-II.
[c]Mean (standard deviation).

Symptom Checklist (SCL-90-R). The BSI-18 is a valid, reliable, and application-economical self-assessment procedure, which captures with 6 items the severity of syndromes of somatization, depression, and anxiety within the last 7 days. In addition, the Global Severity Index (GSI) as a global parameter indicates the general psychological burden. All the scales show satisfactory to high overall reliability (Cronbach's alpha 0.63–0.93).

The Beck Depression Inventory (BDI) [Hautzinger et al., 1994] is a self-assessment instrument for detecting the severity of depressive symptoms within the last week. Scores < 10 mean no or minimal depressive symptoms, scores between 10 and 18 mild to moderate symptoms, scores 19 to 29 moderate to severe symptoms, and scores of 30 to 63 indicate severe symptoms. The overall reliability is Cronbach's alpha = 0.88.

Statistical Analyses

To determine the change in each area of symptom burden across the 4 measurement points, we calculated a linear 2-level model (mixed model) for each area. One model included 3 comparisons for the time effect (compared to the first measurement point). The constant in the model represents the mean at the first measurement point. This parameter was specified as a 'random effect' to take into account the patient's starting level for the symptom burden; the parameters of the 3 time effects compared to baseline were called 'fixed effects'. This model allows for missing values at individual measurement points and includes all patients – even those who dropped out after admission. The parameters are estimated by the 'EM algorithm' (Full-Information Maximum-Likelihood Method), which takes into account systematic dropouts (e.g., of patients with high baseline values) [Wood et al., 2005]. In all calculations, the time effects are given as effect sizes, i.e., mean value differences relative to the standard deviation at admission (not influenced by the intervention). Lastly, analyses were made of the clinical significance of the changes, using responder analyses as per Jacobson and Truax [1991] related to general psychological burden, based on the GSI of the BSI-18 [Franke, 2011]. The analyses were performed with IBM SPSS Statistics Version 23 and the 'mixed models' module.

Results

The n = 332 patients who started their treatment at the Anxiety Day-Hospital of the University Hospital Dresden during the evaluation period showed the strongest symptom burdens for anxiety on the BSI-18, at the beginning of treatment. The burdens were also clinically relevant, however, for depression and somatization. The PAS showed, on average, moderate severity of the symptom burden. Of the patients receiving treatment, about 90% completed it as planned and on schedule. By the end of treatment, there were good to very good and highly significant improvements in anxiety-specific symptom burden shown on the anxiety-specific questionnaires PAS, BSQ, ACQ, and MI. The non-specific symptom areas of depression (BDI and BSI) and somatization (BSI) showed moderate to good symptom improvements. These remained stable at the follow-up points 3 months and 1 year after the end of treatment. All questionnaire measures showed significant improvements at the <0.001 level in mean comparisons at the end of treatment and at the follow-up points relative to the start of treatment. Table 4 shows the mean differences of the symptom burden at the different measurement points, as well as the effect sizes (Cohen's d).

The strongest improvements in symptom burden at the end of therapy, with effect sizes greater than 0.8, were in the PAS subscores for 'agoraphobic avoidance' and 'disability and impairment', as well as the overall PAS score. From the end of treatment to the follow-up points, there was another significant improvement on the PAS 'anticipatory anxiety' scale at the <0.001 level, as well as on all scales of the anxiety-related cognitions (ACQ) questionnaire

Table 4. Symptom burden at the beginning and end of treatment and at the follow-up points[a]

	AD	DIS	3MF	1YF	Changes after admission		
	n = 332[b] M (SD)[c]	n = 299[b] M (SD)[c]	n = 184[b] M (SD)[c]	n = 193[b] M (SD)[c]	AD/DIS d[d]	AD/3MF d[d]	AD/1YF d[d]
Panic and Agoraphobia Scale (PAS)							
Total score	23.52 (10.22)	14.44 (9.43)	13.43 (10.53)	12.43 (9.97)	*0.92*	*0.98*	*1.09*
Panic attacks	1.45 (1.08)	1.06 (1.01)	0.92 (1.01)	0.86 (0.98)	0.37	0.50	0.56
Agoraphobic avoidance	2.04 (1.08)	1.14 (0.93)	1.16 (1.03)	1.13 (0.97)	*0.89*	*0.83*	*0.87*
Anticipatory anxiety	2.34 (1.08)	1.63 (0.99)	1.30 (1.07)	1.14 (0.99)	0.68	*0.97*	*1.14*
Disability/impairment	1.65 (1.04)	0.83 (0.87)	0.84 (0.94)	0.72 (0.89)	*0.84*	*0.81*	*0.94*
Health fears	1.67 (1.09)	1.00 (0.98)	1.01 (1.03)	0.99 (1.07)	0.64	0.62	0.63
Anxiety about physical symptoms (BSQ)	1.89 (1.29)	1.22 (0.78)	1.06 (0.78)	1.08 (0.72)	0.63	0.76	0.75
Anxiety-Related Cognition (ACQ)							
Total mean	1.14 (0.59)	0.79 (0.57)	0.63 (0.56)	0.60 (0.52)	0.60	*0.88*	*0.95*
Physical crises	7.22 (4.54)	4.61 (3.94)	3.89 (3.79)	3.79 (3.70)	0.61	0.78	*0.80*
Loss of control	7.41 (5.28)	5.49 (4.21)	4.11 (3.67)	3.31 (3.44)	0.40	0.69	*0.86*
Mobility Inventory (MI)							
Accompanied	1.21 (1.65)	0.51 (0.55)	0.49 (0.51)	0.52 (0.56)	0.53	0.53	0.50
Alone	1.73 (1.46)	0.84 (0.78)	0.85 (0.87)	0.81 (0.66)	0.73	0.69	0.73
Brief Symptom Inventory 18 (BSI-18)							
Global parameter	22.93 (13.06)	15.07 (11.06)	13.99 (11.28)	11.92 (9.55)	0.66	0.71	*0.91*
Somatization	7.45 (4.94)	5.25 (4.19)	5.01 (4.07)	3.97 (3.28)	0.48	0.52	0.78
Depression	6.45 (5.18)	3.87 (3.71)	4.75 (4.63)	3.58 (3.76)	0.57	0.34	0.60
Anxiety	9.03 (4.99)	5.95 (4.23)	4.33 (4.17)	4.34 (4.55)	0.66	*0.99*	*0.97*
Beck Depression Inventory (BDI-I)	15.91 (9.98)	10.07 (9.46)	11.63 (10.66)	9.77 (10.41)	0.60	0.42	0.61

AD = admission; DIS = discharge; 3MF = 3-month follow-up; 1YF = 1-year follow-up.
[a]Mixed model, comparisons of estimated means.
[b]n may vary for individual questionnaire values.
[c]Estimated means and standard deviation.
[d]Effect size (Cohen's d), calculated using means and a pooled standard deviation, values greater than 0.8 in italics. All mean comparisons were significant at the <0.001 level.

Table 5. Rates of therapy response at the end of therapy as per Jacobson and Truax [1991], related to general psychological stress[a]

Therapy response	n	%
Clinically significantly worse[b]	19	7
Statistically significantly worse[c]	3	1
Non-response	87	32
Statistically significantly improved[d]	98	36
Clinically significantly improved[e]	66	24

[a]Global Severity Index (GSI) of the Brief Symptom Inventory 18 (BSI-18), [Franke, 2000].
[b]GSI > 9 and GSI deterioration > 5.
[c] GSI deterioration > 5.
[d]GSI improvement > 5.
[e]GSI ≤ 9 and GSI improvement > 5.

and on the BSI scales 'somatization' and 'anxiety'. Table 5 shows the therapy response rates and thus the clinical significance relative to the changes in general psychological stress at the end of therapy.

Discussion

The present study investigated the changes in symptom burden and their clinical significance in a routine care setting at a day hospital specializing in anxiety disorders and focusing on intensive and frequent exposure, the Anxiety Day-Hospital at the University

Hospital Dresden. About two-thirds of the patients here had therapy-resistant symptoms after previous outpatient psychotherapy. Nevertheless, the results for anxiety disorder-specific symptoms showed good to very good improvement and for depressive and somatic symptoms good improvement of the functional level and relief of suffering. The effect sizes are comparable to those reported in the meta-analysis by Hans and Hiller [2013] for outpatient therapies. The responder rate of about 60% of completers corresponds roughly to that of Klan and Hiller [2014] for outpatient treatments of panic disorder and agoraphobia, the most common diagnosis by far in the setting presented here. The response here was calculated, however, based on the more conservative general symptom burden and not on the anxiety symptoms alone. The completer rates are 90% higher than those of Klan and Hiller [2014].

The strongest changes by the end of therapy were in the measures of anxiety symptoms related to behavioral and functional impairments. In the longer term after the end of treatment, the changes remained stable and there was a significant improvement in the disorder dynamic and in more hidden factors of anxiety disorders, for example in anxiety-specific cognitions such as anticipatory anxiety or general anxiety. Thus, it becomes clear that guideline- and evidence-based day-hospital confrontation treatment for patients with therapy-resistant symptoms in previous outpatient therapy is feasible and accepted and is associated with good to very good symptom improvement.

A guideline- and evidence-based program in a day-care setting is, as described by Bandelow et al. [2016], associated with increased personnel costs to implement a treatment plan with a central role for accompanied and non-time-limited exposure sessions. These resources are provided in the treatment setting described here; however, this is scarcely possible in most care facilities because this increased personnel expenditure is not shown in current billing arrangements. The aim should be to take into account the particular need for guideline-appropriate treatment of anxiety disorders in the care of patients with anxiety disorders.

Limitations

The validity of the present naturalistic longitudinal study is limited by the lack of control of the intervention and the lack of a randomized control group. Furthermore, attribution to the treatment presented here of the changes by the follow-up points is limited by the uncontrolled factor of outpatient follow-up treatment. There may also be a selection bias, as only slightly less than half of the patients had started treatment with a day of pre-therapy diagnostics and motivation. In addition, the number of patients screened there is only estimated retrospectively and there are no data on the absence of a treatment indication or the fulfillment of exclusion criteria. It may be that patients who are difficult to engage with are underrepresented in an exposure-focused treatment. This could be possible because this informative day session provides a detailed explanation of the exposure-focused treatment concept. The good to very good acceptability and effectiveness of the treatment could thus be, in part, based on selection processes. Here, the challenge would be to reach patients better therapeutically who are difficult to engage with or have strong avoidance tendencies. A further limitation of validity is the result of the narrow range of disorder-specific measuring instruments, for a sample which is heterogeneous in its disorder profile. For example, no instruments specifically intended for obsessive-compulsive disorder were used.

Outlook

More precise study of the changes in different anxiety disorders remains to be done. That is also true for analyses to clarify the long-term effects of outpatient follow-up treatment. There is also unreliable data regarding the influence of previous psychotherapeutic treatment for therapy-resistant symptoms, which were present in the majority of patients. The data allows for further analyses in the future to clarify the variance in therapeutic outcome, for example through analysis of factors for patients, the therapeutic process, therapists, and non-responders. Thus, it is possible to investigate the processes during treatment of anxiety disorder in routine practice on the basis of a large data set with multiple follow-up points and a treatment that is homogeneous over a longer period, structured, and theory- and evidence-based.

Disclosure Statement

The authors describe a facility that they themselves operate.

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