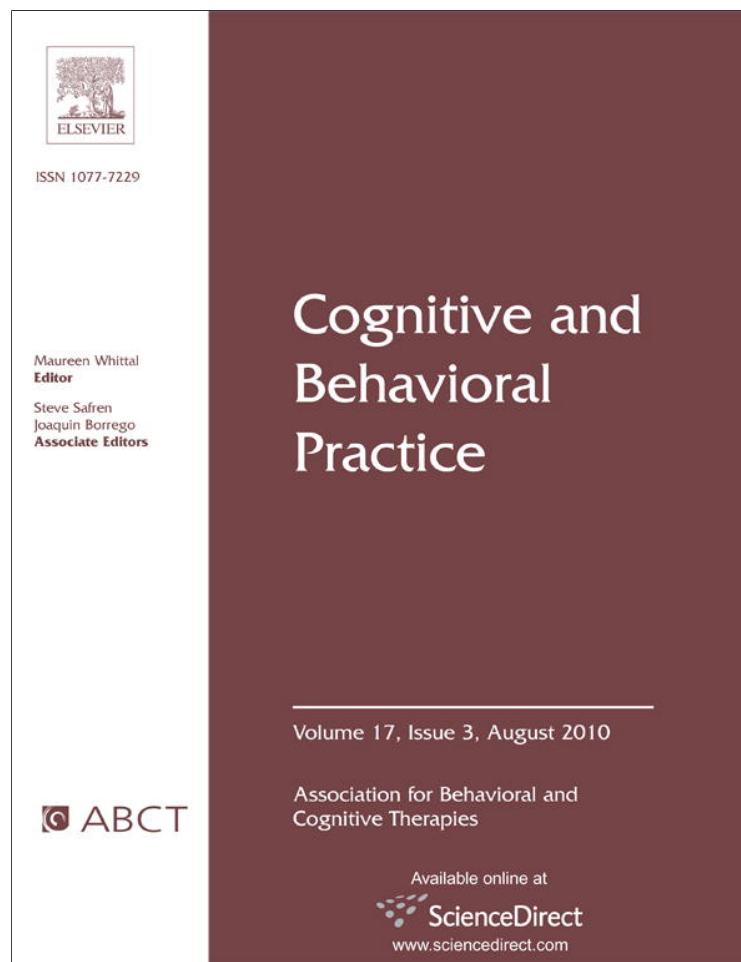


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Killing Two Birds With One Stone: Exposure Simultaneously Addressing Panic Disorder and Obsessive-Compulsive Disorder

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Massed exposure has gained acceptance as an effective method to treat anxiety disorders. When using this intervention in patients presenting with more than one anxiety disorder, specific treatment options need to be discussed. Should exposure be applied in sequential order for each of the comorbid disorders? Or can exposure sessions also be designed to simultaneously target both problem areas? We report on the cognitive-behavioral treatment of a 28-year-old woman with obsessive-compulsive disorder (OCD) and severe panic disorder with agoraphobia (PDA). A series of behavioral experiments based on prolonged exposure was planned. Due to the fact that avoided situations elicited both agoraphobic and contamination fears, we decided to combine exposure for PDA and OCD to optimize therapeutic transfer. Twelve sessions of this exposure resulted in a long-term reduction of both PDA and OCD symptoms. The case illustrates that two comorbid conditions can be effectively combined under one therapeutic rationale. Capabilities and limitations of the method and implications for current theoretical debates on exposure therapy are discussed.

HERE is clear evidence that cognitive behavioral therapy (CBT) focusing on a primary anxiety disorder also decreases symptom severity of a comorbid disorder without directly targeting it in treatment. This effect has been demonstrated for comorbid anxiety and mood disorders when panic disorder was treated as the primary disorder (e.g., Craske et al., 2007; Tsao, Mystkowski, Zucker, & Craske, 2002), for comorbid anxiety disorders when primarily treating generalized anxiety disorder (Borkovec, Abel, & Newman, 1995), and for comorbid sexual dysfunction in addition to another primary diagnosis (e.g., Hoyer, Uhmman, Rambow, & Jacobi, 2009). Although these findings are of obvious practical use given that comorbidity is frequent in patients presenting with anxiety disorders (Kessler, Chiu, Demler, & Walters, 2005), the mechanisms underlying this effect are only hypothetical. One idea is that “comorbidity decreases when CBT effectively down-regulates shared emotional processes such as emotional control” (Craske et al., 2007 p. 1106), implying the balancing of shared dysfunctional processes. Whatever the underlying mechanisms may be, the positive effects on comorbid disorders do not necessarily occur: in clinical practice we are regularly confronted with patients reapplying for treatment due to a relapse of symptoms after having had an intervention that targeted only one disorder within a comorbid anxiety condition.

This paper aims to prompt further discussion on the preference of single-focus treatment over combined therapy for a primary and a secondary diagnosis. This discussion is of specific interest in the field of exposure therapy, where the undivided attention to the fear-provoking stimuli is at the core of the treatment rationale (e.g., Chambless, Goldstein, Gallagher, & Bright, 1986; Craske, Barlow, & Meadows, 2000). We will outline a case conception of simultaneous treatment of obsessive-compulsive disorder (OCD) and panic disorder and agoraphobia (PDA). While Craske et al. (2007) differentiate between single-focus treatment for a primary diagnosis only versus combined but modular-discrete treatment of multiple diagnoses, we suggest a third intervention option involving a simultaneous, integrated focus on two anxiety disorders that share etiologic and maintenance factors. We argue that such an integrated approach might be more effective, at least in patients presenting with two comorbid diagnoses that overlap largely in their underlying etiology and intervention strategies. For instance, when focusing only on PDA aspects in a patient with comorbid OCD during panic-focused in-vivo exposure exercises, contamination-related fears can critically interfere with a successful PDA treatment. For example, trying to experience that being on a bus alone is not triggering fainting might be corrupted by being additionally preoccupied by thoughts of infection when touching hand rails.

In contrast to the modular treatment of comorbid disorders, their simultaneous consideration in therapy poses an additional challenge: evidence based treatment protocols usually only address a single disorder, without

giving recommendations for the handling of comorbid symptomatology (see also Persons, 2005). Generic CBT approaches tackle this problem by suggesting individualized case formulation and treatment, spanning all psychological diagnoses or problems a client presents (e.g., Kuyken, Padesky, & Dudley, 2008; Moses & Barlow, 2006; Padesky & Greenberger, 1995; Persons, 2005). Therefore, single intervention components are chosen from several sources and protocols as indicated. Initial evidence confirms that this approach to comorbid cases is as successful as the manual-based, nonindividualized treatment of single disorders (Persons, Roberts, Zalecki, & Brechwald, 2006).

The case presented herein exemplifies the utility of case formulation-driven treatment. Moreover, it will illustrate that combined, integrated exposure can be effective and even particularly economic, at least when two disorders share psychological mechanisms of maintenance and can, thus, meaningfully be unified under one therapeutic rationale.

The Case

Two years before starting the treatment reported here, Sandra (28 years old, Level 4 NVQ in hair salon management) had already presented as an inpatient with PDA and OCD. She had received successful treatment for her PDA, although her OCD went untreated. Following the birth of her son 1 year later, she experienced a relapse of her self-described “severe anxiety states.” The perceived key symptoms of dyspnea, vertigo, and palpitations were related to strong fears of suffocation, fainting, and heart attack, respectively. The primary fear was of collapsing outside of her home, alone with her son: “For me, he is the most important human being in this world, he must not be harmed.” Therefore, Sandra reacted with very pronounced avoidance and safety behavior—for instance, not leaving the apartment (especially not alone with her son), having a telephone with her at all times, feeding her son on the floor to prevent an accident should she faint, not driving cars or public transport, and avoiding crowds and uninhabited areas (even in company). Since the birth of her son, the patient's previously untreated obsessive-compulsive thoughts and behavior intensified, mainly related to the prevention of potential harm to her son. The patient washed and disinfected her hands once an hour, twice in a row. Outside her apartment, she never touched door-knobs or handrails and used disinfectant. Her son was not allowed to eat food that he had touched with his hands. Returning home from outside, she would immediately change and wash both their clothes; the son and his toys would be washed and disinfected.

Personal History

Sandra grew up as an only child. Her biological father died as a result of alcohol dependence when she was 6.

She remembers her step-father as her “Daddy,” although he openly rejected her. He joined the family soon after the death of her father. Since the age of 3, Sandra had to live for herself in a single-room apartment separate from the apartment of her parents. She remembers numerous anxious nights when nobody reacted to her crying. Often, Sandra was brought to her grandparents, whom she described as very protective and “overanxious.” The patient often had to witness her mother's and step-father's arguments or unfaithfulness. As a child, she often suffered from respiratory afflictions that were accompanied by apnea. In summary, the patient's childhood was characterized by disconcertment, inappropriate and unjustifiable penalties, neglect, and desolation.

History of Previous Treatments

Two years before starting treatment in our clinic, Sandra had participated in a 6-week inpatient cognitive-behavioral treatment of her PDA (but not her OCD-related problems). Following this treatment, she had become, to a large extent, mobile, but still used a broad range of safety strategies.

Measures

Initial diagnoses were assessed using the standardized, structured Composite International Diagnostic Interview (M-CIDI; Wittchen & Pfister, 1997). Additionally, at the beginning and end of therapy and at 12-months follow-up, German versions of the Body Sensations Questionnaire (BSQ) and the Agoraphobic Cognitions Questionnaire (ACQ; both Chambless, Caputo, Bright, & Gallagher, 1984; German versions: Ehlers et al., 1993), the Mobility Inventory (MI; Chambless, Caputo, Jasin, Gracely, & Williams, 1985; German version: Ehlers, Margraf, & Chambless, 1993), the Beck Depression Inventory (BDI; Beck & Steer, 1987; German version: Hautzinger, Bailer, Worall, & Keller, 1994), and the clinician-administered Yale-Brown Obsessive Compulsive Symptom Checklist (YBOCS-SC; Goodman et al., 1989) were given. At the end of therapy, we also asked the patient for her subjective rating of treatment efficacy. This was assessed using a 7-point scale, ranging from “strong improvement” to “strong impairment.” For pretreatment scores, see the left panel of Table 2.

Case Conception

Sandra was diagnosed with PDA (*DSM-IV* 300.21; APA, 1994) and OCD (*DSM-IV* 300.3; APA, 1994). During her life, Sandra had been confronted with numerous experiences associated with insecurity and instability, such as severe diseases of the respiratory passages, rejection and deficient protection by her carers, and physical abuse by her first partner. On the one hand, these incidents made her eminently vigilant for danger, while on the other, they resulted in a very pronounced need for a stable, secure

family (see also Fig. 1). In her belief system, both PDA- and OCD-related avoidance strategies contributed to (a) the protection of both her and her loved ones' health and (b) the prevention of her being perceived as an irresponsible and careless mother and wife. Stressful life events that endangered these core aims increased the possibility of symptoms such as vertigo or obsessive thoughts. That was the case in both initial phases: when Sandra first experienced her PDA and OCD symptoms and when the symptoms reoccurred after the birth of her son. Both times, the initial anxiety responses were associated with interoceptive (e.g., vertigo) and exteroceptive (e.g., sneezing passengers on a bus) cues and led to the interpretation of bodily symptoms and specific situations as dangerous. To control threat to both herself and her family emanating from internal (i.e., physical panic symptoms) and external triggers (e.g., situations that increase likelihood of panic attack or fear of infection), she developed severe avoidance behaviors: to prevent an infection of one of the family members, she increasingly avoided potential contamination and situations identified as highly contagious; and to avoid the loss of herself as the "family carer," she soon avoided being outside with only her son. All of these avoidance behaviors were based on the same core beliefs described above. As a consequence, challenging these core beliefs, rather than specific assumptions, was the core of the treatment plan. To summarize, there were strong reasons for choosing a

therapeutic approach that allowed the controlled *simultaneous* activation of both avoidance patterns: the two diagnoses at least partially shared the same dysfunctional cognitive beliefs, but they substantially overlapped concerning symptom provocation in reality (e.g., contaminated handrails on a crowded bus). Furthermore, potential problems in transferring corrective information from one situation to the other should be minimized using such an approach. Therefore, we designed a massed-exposure series of highly negatively connotated PDA- versus OCD-related situations that were presented in a mixed, overlapping order rather than in a more traditional modular or sequential way.

Cognitive-Behavioral Treatment

In total, treatment was delivered in 12 sessions (90 minutes each). Phase 1 was held in 2 sessions, Phase 2 was applied using a total of 6 sessions on 2 consecutive days. During Phase 3, the patient came in for 4 sessions. All treatment was delivered by the first author.

Phase 1 – Psychoeducation: Information About Etiology and Maintenance, and Treatment Rationale

Initially, the patient was informed about her diagnoses in detail to introduce the treatment plan and increase her motivation for the exposure therapy. Together with the patient, explanations regarding the etiology, development, and recurrence of the disorders (as depicted in

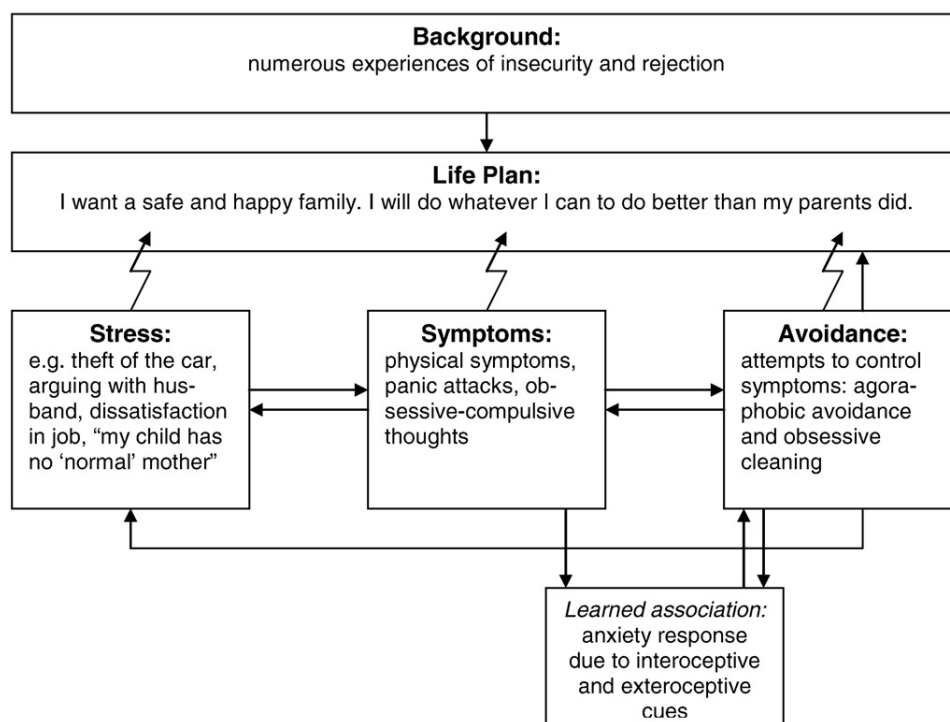


Figure 1. Model used to explain etiology and maintenance of panic with agoraphobia and obsessive-compulsive disorder to the patient.

		I HAVE AN UNNOTICED SERIOUS DISEASE	
		yes	no
I ACT AS IF I HAD AN UNNOTICED SERIOUS DISEASE	yes	"This would be very straining and exhausting. There would be no more joy in life."	"That would be a terrible mistake. I would throw away my life, I would not live, although there was no reason to worry about!"
	no	"I would have had a wonderful, light-hearted life, I would leave my son having a wonderful memory of his mum."	"I can do everything without worrying. I am free."

Figure 2. 2×2 exercise to increase motivation for entering an exhausting massed exposure.

Fig. 1) were formed. The patient learned that the development of both disorders might reflect an attempt to save her family: by avoiding situations that she experienced as threatening, she prevented any harm to her family. Sandra realized that while these strategies would make her feel better for the moment, they would ultimately worsen the symptoms longer-term, since her safety behaviors served only to confirm her dysfunctional evaluations and fears. Her relapse after treatment was predominantly explained by the alteration of her situation: the birth of her child prompted new fears, such as, "When I faint, something could happen to my child."

To introduce the treatment rationale, the patient was encouraged to vividly imagine (a) a panic-specific scenario (being in a crowded shopping mall alone with her son) versus (b) an OCD-specific situation (coming home from the mall and neither washing herself nor her son), which were detailed by the therapist. Both scenarios were developed based on the patient's individual fears and safety strategies, and characterized by intense threat and complete lack of any safety or exit options. Separately for each situation, Sandra was asked for anxiety ratings over time (e.g., "If you were in that situation, how anxious would you feel at the beginning, on a scale from 0 to 100?"), with the aim that at some point she would eventually acknowledge a decrease in anxiety despite the intensity of the situation. In both cases, Sandra experienced very strong initial anxiety and tension, but soon understood the concepts of habituation and autonomous reduction of her symptoms. In order to clarify the effects of her present behavior and to further motivate Sandra for therapy, a 2×2 schema was developed with the patient, which systematically related assumptions to possible behaviors for each of the diagnoses (Fig. 2). Reflecting on this schema helped the patient in her decision to experiment with new behavior.

Phase 2 – Massed Exposure

The in-vivo confrontation with anxiety-provoking situations was conducted in an intensive block on two

following days. This method of massed exposure is very well established and its efficacy approved for both OCD and PDA (e.g., Clark et al., 1999; Lang & Hoyer, 2007; Morissette, Spiegel, & Heinrichs, 2005; Öst, Alm, Brandberg, & Breitholz, 2001; Whiteside, Brown, & Abramowitz, 2008). On Day 1, Sandra practiced alone, on Day 2 she faced the more difficult task of self-exposure toward threatening situations in the presence of her son. Although accompanied and instructed by the therapist in between single tasks on both days, she carried out all exercises alone. The key aim of this part of therapy was to reduce the perceived importance of using safety behavior to control anxiety. Therefore, the patient tried to stay in the feared situation until she experienced a decrease in anxiety without escaping or using safety strategies. We aimed at addressing the PDA and OCD symptoms in combination and, if meaningful, even simultaneously. The primary role of the therapist during the massed exposure sessions was to reduce the degree of mutual distraction caused by different exposure situations. For instance, if a panic-related exposure situation followed a contamination exercise before complete symptom reduction was achieved, the therapist kept reminding the patient of the current level of "contamination" before and after the following exercise (e.g., "Remember that just minutes ago you had touched your face with both hands after you had put them on a toilet seat. I am sure they are still very unhygienic, could you please touch your face again?"). The exercises, apprehensions, and conclusions of the patient are illustrated in Table 1.

For instance, Sandra was asked to touch a public restroom toilet seat without washing her hands, and to touch her hair and face afterwards. This exercise was one of the most difficult for Sandra to complete. She angrily predicted that thoughts of contamination, anxiety, and tension would persist until she was able to wash and disinfect herself. As can be seen in Fig. 3, an agoraphobic exercise was added about 15 minutes after having instructed the patient to deliberately "contaminate" herself. We were aware of the potential caveat that placing

Table 1
Course of the accompanied 2-day exposure session

Exercise	Focus	Patient's expectation	Course and outcome
<u>Bus ride, alone</u>	PDA	"Without any doubt I am going to faint."	Anxiety significantly reduced during 1 hour, patient very happy ("I enjoyed the sun") and sad ("I wasted 2 years").
<u>Public restroom: touching door-knobs, toilet seat, then hair, face, clothes</u>	OCD	"I will be extremely tense and bad tempered until washing. I will get ill."	Very anxious and angry, tense, keeps hands away from body, very slow but complete reduction of anxiety and tenseness.
<u>Underground car park: crossing, inhaling</u>	PDA	"I will faint and then suffocate."	Several trials due to safety strategies, continuous anxiety reduction.
<u>City forest: walking a 1-hour route alone with map, no time hints</u>	PDA	vertigo, faint	Initially high anxiety, continuously reduced ("I did something wonderful for myself, and I could stand feeling light-headed"); absolutely relaxed, happy, smiling; no feeling of contamination, touches face without problems.
<u>Bus ride: alone</u>	PDA	"No problem."	Slight anxiety at the beginning, fast reduction
<u>At home: no disinfection, contamination of other clothes with jacket and hands, eating</u>	OCD	"I will feel dirty, but I can handle it."	Tense in the beginning, quick adaptation and relaxation.
<u>Bus ride with son</u>	PDA	"I am sure I will faint."	Very strong anxiety, only little reduction during exercise, but surprise that not fainted.
<u>Cable car, with son</u>	PDA/OCD	"I am anxious, but we will make it."	Increasing anxiety during waiting period, fast reduction, no problems in accepting and eating fruits for her and her son offered from other guests despite contamination thoughts.
<u>Bus ride, with son</u>	PDA	"No problem."	No anxiety, happy, patient makes plans for further exercises with son.
<u>At home: no washing of son, clothes and toys</u>	OCD	"It might be difficult, but I can handle it."	No anxiety.

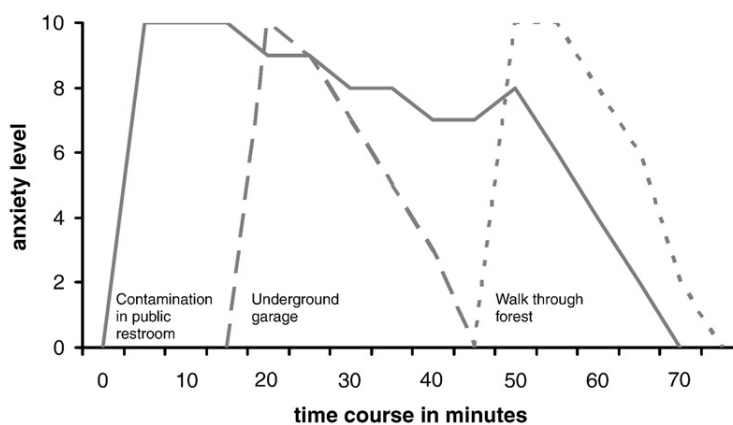


Figure 3. Course of anxiety levels in an OCD exposition task and two merging agoraphobia exposition tasks.

the second exercise (agoraphobic) within the first one (contamination) could be too demanding for the patient, or that the second exercise could be experienced as a means for internal avoidance, but the clinical observations did not confirm these critical viewpoints. Although Sandra was particularly tense and agitated after the contamination exercise and insisted that this state would not change, she somewhat stubbornly agreed to continue her way through a series of additional exercises. In fact, Sandra experienced a fast reduction of her agoraphobic anxiety and, at the same time, a reduction of her contamination anxiety. It seemed that the agoraphobic exercise, due to its attention-drawing quality, served as a tool for healthy and effective response prevention of the contamination fears and, thus, helped pave the way to the corrective experience that washing was not necessary to regain control.

Afterwards, the patient walked alone through an unknown, complex forest. The initial strong agoraphobic anxiety disappeared quickly and Sandra even enjoyed her walk, which resembled motivational shifts known from the Premack principle (Premack, 1959). This learning-theoretical approach postulates that high-probability or preferred behavior can be used to reinforce low-probability or nonpreferred behavior. In this specific case, it is possible that the pleasant situation of going for a walk is either positively reinforcing the less avoidant behavior by way of being a positive activity that the patient once enjoyed but completely neglected for the last few years, or by the fact that it distracts the patient from contamination-related thoughts (but not in a dysfunctional, for instance neutralizing, way). As Sandra did something very pleasant for herself for the first time in several years, she was very happy and relaxed afterwards and even laughed when she caught herself thoughtlessly touching her face with one of her "contaminated" hands. Both the agoraphobia and the contamination anxiety had completely disappeared.

At the end of both exposure days, Sandra reported very euphorically on the reduction of her threat perception related to external situations and germs and a strengthened self-confidence to continue practicing further situations herself.

Phase 3 – Self-Control

Following the guided massed exposure, Sandra was advised to continuously practice anxiety-provoking situations, such as going to the park with her child, driving a car, and not washing her son and his clothes after being outside the apartment. The tasks were regularly discussed. At the beginning of the self-management phase, Sandra's son fell ill with pseudo-croup, which is accompanied by strong dyspnea and risk of suffocation. Surprisingly, Sandra did not relate the disease to her modified cleaning behavior, but rather managed the care very self-confidently, without relapsing into OCD behavior. Nevertheless, during that time Sandra was not able to continue her agoraphobia tasks. While the OCD symptoms were reduced to a minimum, anticipatory anxiety and agoraphobic avoidance behavior redeveloped. To stop the stagnation, a motivational session was conducted: the therapist returned responsibility to the patient by phrasing appreciating verbalizations as, "Maybe this promising method does not work for you. I would be very surprised about that, as it succeeds in most cases. But maybe you are an outlier, and staying home is really the safest way to handle your problems." Immediately after that session, Sandra resumed exercising self-confidently, ambitiously, and regularly. No additional treatment was given during the 12-month follow-up assessment period after the end of treatment.

Clinical Outcome

Table 2 depicts Sandra's questionnaire scores at the end of treatment and at the 12-month follow-up assessment. As can be seen, all scores decreased to a nonclinical level with 1-year stability. Without direct treatment, the depression score, as measured by the BDI, was reduced from 18 (clinically significant) to 4 (normal range). Additionally, Sandra reported "strong improvement" on the 7-point treatment efficacy scale, administered at the end of treatment. She appeared well-kempt again. Sandra now also acquired a high amount of self-confidence from a part-time job, which she sought herself.

Table 2
Sandra's questionnaire scores before and after treatment and at 12-months follow-up

Instrument	Subscale	Pre Score	Post Score	12-m Follow-Up	Normal Range
Beck Depression Inventory		18	4	6	0-11
Body Sensations Questionnaire		2.5	1.8	2.0	1.1-2.2
Agoraphobic Cognitions Questionnaire		2.0	1.5	1.6	1.0-1.6
Mobility Inventory	avoidance in company	2.1	1.2	1.1	0.9-1.6
	avoidance alone	4.0	1.5	1.8	1.0-1.9
Yale-Brown Obsessive Compulsive Scale	number of symptoms	15	4	6	–
	severity	17	3	5	–

Note. Scores beyond the normal range are in boldface type.

Discussion

In this paper, we presented a case in which PDA and comorbid OCD were targeted simultaneously using exposure exercises that were designed to simultaneously address co-occurring disorders. This case provides preliminary evidence that massed exposure therapy addressing two anxiety disorders at the same time can be successful. Although earlier research suggests *reduced* efficacy of CBT that focuses on two diagnoses versus CBT that focuses on the primary PDA only (Craske et al., 2007), the patient outlined here acquired significant, 1-year stable improvements in both symptom categories. However, the combined treatment of two diagnoses described here is different from the combined treatment described in Craske et al. (2007): While the diagnoses in Craske et al.'s study were treated separately and modular, Sandra's comorbid diagnoses were targeted in an integrated setting based on an individual case formulation including both diagnoses. Therefore, the two apparently opposing observations regarding the efficacy of combined treatment of a primary and a comorbid disorder do not contradict each other.

Research in the field of emotional neuroscience shows that a broad range of psychiatric diagnoses are characterized by lowered activation in similar brain areas relevant in emotional regulation (for example, the suppression of negative affect: e.g., Goldapple et al., 2004; Roth et al., 2007). This supports the idea that emotional disorders share underlying core features of psychopathology, such as this general deficit in emotion regulation (e.g. Craske et al., 2007). This concept is also key to transdiagnostic therapeutic approaches, which focus on these potential core vulnerabilities instead of a single diagnosis (e.g. Barlow, Allen, & Choate, 2004; Harvey, Watkins, Mansell, & Shafran, 2004; Hayes, Strosahl, & Wilson, 2003; Moses & Barlow, 2006). Based on our experience with successfully treating OCD and PDA simultaneously, it seems possible that combined treatment of two disorders can lead to a mutual enhancement of positive effects. This outcome is possible provided that the two diagnoses are closely linked with respect to underlying beliefs, etiology, and therapeutic rationale, and also that the therapist carefully explains this rationale and prevents the patient's incorrect use of exposure to one stimulus as avoidance of the other. The efficacy of a simultaneous treatment of two comorbid disorders also seems to be dictated by a more general, creative use of treatment manuals that usually address only one disorder. In Sandra's case, a too puristic, manual-driven approach would have encountered serious limitations due to the given overlap between the two diagnoses regarding etiology and manifestation. The here presented case shows that a well-grounded departing from the standardized protocol can be efficient.

Also, the type of the comorbid diagnosis might be relevant in whether a single-focus treatment versus the intervention of two comorbid diagnoses is most effective. Most of the comorbid diagnoses reported for Craske et al.'s (2007) sample were depressive disorders, generalized anxiety disorders, or specific phobias, potentially allowing the treatment of the PDA without the comorbid disorder getting in its way. However, if severe motivational problems in the context of a comorbid depressive disorder or strong contamination fears in the context of an OCD interfere with the treatment of the PDA, a simultaneous treatment might be preferable. Moreover, combined, integrated treatment might not only be more cost-effective, but also more consequent and elegant, given that both disorders share the same underlying core beliefs and it may therefore be more efficient in helping to transfer therapeutic experiences into the everyday life of the patient. This is also in line with recent accounts that extreme aversive arousal must not necessarily be part of efficacious exposure techniques (Rubin, Spates, Johnson, & Jouppe, 2009): when, in our case, Sandra is involved in an agoraphobia exercise *during* the response prevention phase of her exposure to OCD stimuli, there may be a reduction in aversive arousal, but it still nevertheless helps her to undergo the corrective experiences (i.e., the goal of exposure to the OCD stimuli). The purpose of concentrating on the agoraphobic stimuli instead was *not* to avoid remembering the OCD stimuli (please recall that the therapist prompted Sandra to think back to these stimuli at the same time). This form of double-tasking seems to resemble naturally occurring combinations of stimuli and possible actions: when healthy individuals consider something aversive to be irrelevant or acute, they concentrate on something more relevant. To deliberately focus one's attention to where one wishes is not a form of dysfunctional avoidance, provided the individual is able to purposefully deal with the aversive stimuli if necessary. In this regard, it is important to note that Sandra had previously demonstrated her ability to cope with exposure to OCD stimuli that were not confounded with agoraphobic stimuli.

In sum, the case presented here suggests a third intervention option, adding to Craske et al.'s (2007) distinction of a single-focus treatment versus a modular treatment of two comorbid disorders. Additional research is required that thoroughly compares the clinical effectiveness of these three alternatives while carefully noting the relevance of type and relatedness of the research patients' two comorbid disorders, so that this may inform future clinical practice.

References

- Barlow, D. H., Allen, L. B., & Choate, M. L. (2004). Toward a unified treatment for emotional disorders. *Behavior Therapy, 35*, 205–230.

- Beck, A. T., & Steer, R. A. (1987). *Manual for the revised Beck Depression Inventory*. San Antonio, TX: The Psychological Corporation.
- Borkovec, T. D., Abel, J. L., & Newman, H. (1995). Effects of psychotherapy on comorbid conditions in generalized anxiety disorder. *Journal of Consulting & Clinical Psychology, 63*, 479–483.
- Chambless, D. L., Caputo, G. C., Bright, P., & Gallagher, R. (1984). Assessment of fear of fear in agoraphobics: The Body Sensations Questionnaire and the Agoraphobic Cognitions Questionnaire. *Journal of Consulting and Clinical Psychology, 52*, 1090–1097.
- Chambless, D. L., Caputo, G. C., Jasin, S. E., Gracely, E. J., & Williams, C. (1985). The Mobility Inventory for Agoraphobia. *Behaviour Research and Therapy, 23*, 35–44.
- Chambless, D. L., Goldstein, A. A., Gallagher, R., & Bright, P. (1986). Integrating behavior therapy and psychotherapy in the treatment of agoraphobia. *Psychotherapy: Theory, Research, and Practice, 3*, 150–159.
- Clark, D. M., Salkovskis, P. M., Hackmann, A., Wells, A., Ludgate, J., & Gelder, M. (1999). Brief cognitive therapy for panic disorder: A randomized controlled trial. *Journal of Consulting and Clinical Psychology, 67*, 583–589.
- Craske, M. G., Barlow, D. H., & Meadows, E. A. (2000). *Mastery of your anxiety and panic—Third edition: Therapist guide for anxiety, panic, and agoraphobia*. Albany, NY: Graywind Publications.
- Craske, M., Farchione, T. J., Allen, L. B., Barrios, V., Stoyanova, M., & Rose, R. (2007). Cognitive behavioural therapy for panic disorder and comorbidity: More of the same or less of more? *Behaviour Research and Therapy, 45*, 1095–1109.
- Ehlers, A., Margraf, J., & Chambless, D. L. (1993). *Fragebogen zu körperbezogenen Ängsten, Kognitionen und Vermeidung (AKV)*. Weinheim: Beltz.
- Goldapple, K., Segal, Z., Garson, C., Lau, M., Bieling, P., Kennedy, S., & Mayberg, H. (2004). Modulation of cortical–limbic pathways in major depression: Treatment-specific effects of cognitive behavior therapy. *Archives of General Psychiatry, 61*, 34–41.
- Goodman, W. K., Price, L. H., Rasmussen, S. A., Mazure, C., Fleischman, R. L., Hill, C. L., Heninger, G. R., & Charney, D. S. (1989). The Yale-Brown Obsessive Compulsive Scale: I. Development, use, and reliability. *Archives of General Psychiatry, 46*, 1006–1011.
- Harvey, A., Watkins, E., Mansell, W., & Shafran, R. (2004). *Cognitive behavioural processes across psychological disorders*. Oxford: Oxford University Press.
- Hautzinger, M., Bailer, M., Worall, H., & Keller, F. (1994). *Beck-Depressions-Inventar (BDI)*. Bearbeitung der deutschen Ausgabe. Testhandbuch Bern: Huber.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2003). *Acceptance and Commitment Therapy: An experiential approach to behavior change*. New York: The Guilford Press.
- Hoyer, J., Uhmman, S., Rambow, J., & Jacobi, F. (2009). Reduction of sexual dysfunction: A by-product of effective cognitive-behavioural therapy? *Sexual and Relationship Therapy, 24*, 64–73.
- Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 617–627.
- Kuyken, W., Padesky, C. A., & Dudley, R. (2008). The science and practice of case conceptualization. *Behavioural and Cognitive Psychotherapy, 36*, 757–768.
- Lang, T., & Hoyer, J. (2007). Time-intensive massed exposure and fast remission of agoraphobia: A case example. *Behavioural and Cognitive Psychotherapy, 35*, 371–375.
- Morissette, S. B., Spiegel, D. A., & Heinrichs, N. (2005). Sensation-focused intensive treatment for moderate to severe panic disorder with agoraphobia. *Cognitive and Behavioral Practice, 12*, 17–29.
- Moses, E. B., & Barlow, D. H. (2006). A new unified treatment approach for emotional disorders based on emotion science. *Current Directions in Psychological Sciences, 15*, 146–150.
- Öst, L. G., Alm, T., Brandberg, M., & Breitholz, E. (2001). One vs. Five sessions of exposure and five sessions of cognitive therapy in the treatment of claustrophobia. *Behaviour Research and Therapy, 39*, 167–183.
- Padesky, C. A., & Greenberger, D. (1995). *Clinician's guide to mind over mood*. New York: Guilford Press.
- Persons, J. B. (2005). Empiricism, mechanism, and the practice of cognitive-behavior therapy. *Behavior Therapy, 36*, 107–118.
- Persons, J. B., Roberts, N. A., Zalecki, C. A., & Brechwald, W. A. G. (2006). Naturalistic outcome of case formulation-driven cognitive-behavior therapy for anxious depressed outpatients. *Behaviour Research and Therapy, 44*, 1041–1051.
- Premack, D. (1959). Toward empirical behaviour laws. 1. Positive reinforcement. *Psychological Review, 66*, 219–233.
- Roth, M. R., Saykin, A. J., Flahsman, L. A., Pixley, H. S., West, J. D., & Mamourian, A. C. (2007). Event-related functional magnetic resonance imaging of response inhibition in obsessive-compulsive disorder. *Biological Psychiatry, 62*, 901–909.
- Rubin, D. B., Spates, C. R., Johnson, D. A., & Jouppi, L. (2009). Dosed versus prolonged exposure in the treatment of fear: An experimental evaluation and review of behavioral mechanisms. *Journal of Anxiety Disorders, 23*, 806–812.
- Tsao, J. C. I., Mystkowski, J. L., Zucker, B. G., & Craske, M. G. (2002). Impact of cognitive-behavioral therapy for panic disorder on comorbidity: a controlled investigation. *Behaviour Research and Therapy, 43*, 959–970.
- Whiteside, S. P., Brown, A. M., & Abramowitz, J. S. (2008). Five-day intensive treatment for adolescent OCD: A case series. *Journal of Anxiety Disorders, 22*, 495–504.
- Wittchen, H. U., & Pfister, H. (1997). *DIA-X Interview*. Frankfurt, Germany: Swets and Zeitlinger.

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