How to treat the untreated: effectiveness of a self-help metacognitive training program (myMCT) for obsessive-compulsive disorder

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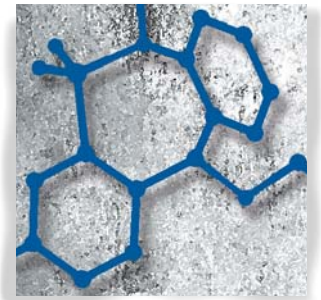

Despite advances in the understanding and treatment of obsessive-compulsive disorder (OCD), many patients undergoing interventions display incomplete symptom reduction. Our research group has developed a self-help manual entitled "My Metacognitive Training for OCD" (myMCT) aimed at raising patients' awareness about cognitive biases that seem to subserve OCD. The training is particularly intended for patients currently unable or unwilling to attend standard therapy, or in cases where such a treatment option is not available. For the present study, 86 individuals suffering from OCD were recruited over the Internet. Following the initial assessment, participants were either immediately emailed the myMCT manual or allocated to a waitlist group. After 4 weeks, a second assessment was performed. The myMCT group showed significantly greater improvement for OCD symptoms according to the Y-BOCS total score compared with the waitlist group (d =.63), particularly for obsessions (d=.69). Medium to strong differences emerged for the OCI-R (d =.70) and the BDI-SF (d =.50). The investigation provides the first evidence for the effectiveness of the myMCT for OCD.

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Efficacy of treatment for obsessive-compulsive disorder

Obsessive-compulsive disorder (OCD) is a severe mental illness characterized by intrusive, repetitive, and bothersome thoughts (ie, obsessions) usually followed by ritualized behavior (ie, compulsions such as excessive hand-washing for fear of transmitting diseases) aimed at neutralizing the obsessive contents.[1] As a consequence of OCD, the majority of patients are confronted with vast economic and social problems; many patients are unable to work, and lack a stable social network. Quality of life is usually very low,[2,3] and comorbid depression is diagnosed in one to two thirds of all patients.[3]

Effective treatment strategies have been at hand for quite some time now. As a rule of thumb, cognitive-behavioral therapy (CBT) has a success rate of around 80% for those who complete treatment.[4,5] Recent reviews assert[6,7] that its core ingredients, behavioral and cognitive techniques, share roughly similar efficacy. The overall effect size for psychological interventions in adult samples is d=1.24 according to a Cochrane review.[6] In adolescents, estimates are similar.[8]

Keywords: *obsessive-compulsive disorder; cognition; metacognition; psychotherapy; association splitting*

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However, several words of caution are necessary in view of studies that find less favorable results.[9,10] For example, when dropout rates are considered, response is typically only seen in every second patient.[1,11] While Pinard[11] concludes in his editorial introduction on Abramowitz' meta-analysis[4] that "OCD therapeutic strategies are […] less than satisfactory for the moment," treatment reality beyond controlled trials, the latter usually being conducted with skilled, trained, and highly motivated therapists, may be even worse. The dropout rate seen under standard clinical conditions is likely to be higher relative to ideal study conditions. For example, a Spanish study[12] reports that of 203 patients (mainly anxiety disorders) seen in a cognitive-behavioral unit 43.8% dropped out mostly at early stages of the intervention.

Treatment gap of OCD: the need for improved interventions

It often takes up to 10 years until OCD patients seek professional help for their problems, and there is a lag of 6 or more years until the diagnosis is correctly determined and appropriate treatment is initiated.[13,14] The rate of untreated cases for OCD is 59.5% (so-called treatment gap) according to a large WHO study.[15] However, the few patients receiving psychiatric or psychological help often do not get optimal, evidence-based treatment. A recent study[16] showed that 65% of adult patients with OCD were treated with an SSRI, whereas only 7.5% of the patients received CBT despite its effectiveness.[7] A recent German study found that less than 50% of all interviewed psychotherapists (CBT and other) performed exposure and response prevention (ERP) mainly owing to lack of experience and insufficient training in this technique.[17] According to patients' reports, the situation is even worse. Approximately 84% of the sample reported that they did not receive exposure and response prevention at all.[18,19]

Importantly, treatment success is usually not defined as full symptom remission, but as a symptom decline of 30% to 35% at least on the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS),[20] which has led to some criticism, for example by Pinard[11] who wrote: "as if reducing rituals from 6 to 4 hours were clinically meaningful." Others[21] have noted that outcome criteria are less strict for OCD than for other disorders for which a remission of 50% of symptoms is considered substantial. Thus, many patients remain severely disabled even after a clinically defined successful therapy. Furthermore, modest symptom decline does not necessarily translate into improved quality of life.[3]

Metacognitive training for OCD (myMCT)

Based on a cognitive tradition of psychotherapy, our group developed a self-help manual called Metacognitive Training for OCD (myMCT).[22] Among other cognitive distortions, it deals with the six cognitive biases identified by the Obsessive-Compulsive Working Group[23-26]: (i) inflated responsibility, (ii) overimportance of thoughts, (iii) excessive concern about the importance of controlling one's thoughts, (iv) overestimation of threat, (v) intolerance of uncertainty, and (vi) perfectionism *(see Appendix)*.

Some of its exercises have been derived from a metacognitive training program for schizophrenia first published in 2005.[27] The myMCT pursues three overarching aims: (i) knowledge translation/psychoeducation, that is, to teach patients about core features of OCD (ie, obsessions, compulsions, avoidance, and safety behaviors); (ii) help patients to detect cognitive biases, dysfunctional metacognitive beliefs as well as dysfunctional coping strategies that subserve, maintain, or fuel OCD symptoms; (iii) convey new strategies to reduce and cope with OCD symptoms, particularly obsessions.

The program is eclectic and encompasses theories and strategies derived from other "schools," most notably cognitive-behavioral, metacognitive,[28] and to a lesser degree psychoanalytic accounts,[29] whose theoretical foundations are not mutually exclusive but may in part reflect different sides of the same coin. To illustrate, inflated responsibility plays a central role for most OCD theories. Whereas cognitive intervention would primarily target the content of the belief, dynamic approaches would ask how far responsibility reflects, for example, reaction formation, that is, overcompensation of latent aggression.[30] In a recent study, we indeed found evidence that these seemingly contradictory attitudes—inflated responsibility and high moral standards versus latent aggression and mistrust—coexist in patients.[31] From Wells' metacognitive standpoint, exaggerated responsibility is an epiphenomenon related to fusion beliefs[32]: Patients feel responsible as their thoughts are deemed toxic and potentially harmful to others.

Our self-help manual starts with an introduction which defines core features of OCD symptomatology, demon-

strates its most prevalent subtypes, and requests patients to identify their own core problems (obsessions, compulsions, avoidance, safety behavior) and dysfunctional coping strategies (eg, thought suppression, rumination). Then, the aims of the program are explicated. The myMCT consists of 14 sections dealing with prevalent cognitive biases in OCD. These are summarized in the *Appendix*.

The present study set out to explore the feasibility and effectiveness of the myMCT as a self-help approach for OCD. Although therapist-guided CBT remains the undisputed treatment of choice for OCD, a large group of patients, as mentioned before, does not actively seek professional help and specialized therapy is not widely available. So far, there is scarce evidence for the effectiveness of self-help programs ("bibliotherapy"). Most studies to date involved at least some contact to therapists.[33] In a recent study by Tolin and coworkers,[34] patients performed an exposure and response prevention, either self- or therapist-directed. This study demonstrated that bibliotherapy is an effective method, although direct treatment led to more favorable results. In this study, therapist contact was minimal (first session).

To reach patients outside the treatment system, for the present study, participants with OCD were recruited over the Internet for the present study. Assessments were also made online. Half of the patients were allocated to a waitlist group and the other half received the myMCT immediately after participation in the initial assessment. The post assessment was performed 1 month later. We expected myMCT to be superior to the waitlist group, especially for the reduction of obsessions. As exposure and response prevention was not included in the manual at that time (this aspect was incorporated later), a negligible improvement on compulsions was expected. However, in view of poor attention, motivation, and slowness in many patients, we expected that not all patients in the experimental (myMCT) arm would read the manual and perform the exercises.

Methods

Recruitment

The first author posted an invitation for an Internet-based self-help trial aimed at reducing OCD symptoms on three Internet forums for OCD. Two sites were hosted by the German and Swiss Societies for Obsessive-Compulsive Disorder which provide help to OCD sufferers and disseminate information about OCD to the public. The third Web site was again solely devoted to OCD. This strategy ensured approaching persons with OCD only. If we had posted the announcement in forums with a broader scope, our invitation might have attracted patients with non-OCD diagnoses. Subjects were asked to refrain from participation if they did not experience obsessive thoughts, did not regard their obsessional worries as at least exaggerated (low illness insight), had no time to perform exercises in the course of the following four weeks, or did not agree to participate in an anonymous (Internet-based) survey before and after the intervention. Further, it was made mandatory that a diagnosis of OCD had to be determined by a health care professional beforehand. No compensation was offered for study participation except for the cost-free delivery of an electronic self-help manual (PDF-converted e-book). A Web link was then provided for those willing to participate.

When accessing the Internet questionnaire, participants were welcomed and the study rationale was repeated. It was made clear that participation would not require personal or telephone contact and that it was strictly anonymous. MyMCT was not described beforehand to avoid recruitment biases.

The Internet-based questionnaire at the preintervention phase consisted of the following sections: introduction, sociodemographic questions (age, gender, school education), and medical history (eg, prior therapies, if therapy was sought at all, profession of person who had diagnosed OCD before). This was followed by a clinical part consisting of the scales described below. At the beginning of the Y-BOCS section, examples for obsessions and compulsions were given to prevent possible misunderstandings (eg, cognitive compulsions such as counting are sometimes confused with obsessive thoughts). Items were worded in the original item format and the survey only proceeded if all items (except for comments) were answered. On the final page, participants were asked to enter their email address and a code word which would be asked for at the post-intervention phase.

Participants who left e-mail addresses were allocated to the experimental or waitlist group according to a random plan. The treatment manual was sent to the participants of the experimental group via e-mail attachment within 24 hours. The other half was informed via e-mail that they

were allocated to the waitlist group and would receive the manual subsequent to the reassessment 4 weeks later. Patients were provided with the e-mail address of the first author in case of questions. E-mails were responded to within 24 hours. However, only three participants turned to the first author, whereby questions were solely related to the handling of the PDF file.

Four weeks after the dispatch of the manual, participants were e-mailed a second link and requested to take part in the post-assessment. To identify participants, either the code word or e-mail address had to be entered first on the Web page. The second assessment contained the same questionnaires as before (see below: OCI-R, Y-BOCS, BDI-SF) but did not ask again for sociodemographic data or the medical history again. For those participants who affirmed having read the manual, a number of questions were administered including subjective effectiveness of the technique, comprehensibility of the manual, and motivation to administer the technique in the future (4-point likert scale: fully agree, almost agree, somewhat agree, do not agree). In case the intervention was subjectively effective, participants were asked to indicate when improvement had occurred. At the end of the assessment, gratitude for participation was expressed to all subjects. Participants also had the opportunity to download the latest version of the manual. The e-mail address of the first author was provided again in case of questions or remarks. Participants gave informed consent.

Participants

A total of 86 participants completed the questionnaires and left their e-mail addresses (ie, 63% of the 137 different individuals who accessed the first page of the questionnaire). All participants confirmed that a diagnosis of OCD was previously determined by a health care professional.

Questionnaires

Participants had to fill out the Obsessive-Compulsive Inventory-Revised (OCI-R),[35] a self-report scale to evaluate the frequency and distress experienced by OC symptoms across six subscales. The OCI-R has good psychometric properties[35-37] that also apply to the German version,[38,39] and is sensitive to change.[40]

To tap depressive symptoms, the Beck Depression Inventory-Short Form (BDI-SF)[41,42] was administered which is based on the cognitive-affective subscale of the long form, a widely used scale and the gold standard for the subjective assessment of depression. It contains good concurrent validity in medical inpatients.[42]

The primary outcome of the study was the self-report version of the Y-BOCS,[20,43] which measures the severity of obsessions and compulsions. The self-report version of the scale has shown strong convergent validity with the original interview version.[44,45]

For the post-assessment, participants were contacted at the designated date of the reassessment and reminded 3 to 4 days later. Another 3 to 4 days later, a second reminder was sent. If this was not responded to, members of the intervention group were asked via email to state at least whether they had read the myMCT manual in case they did not want to complete the entire assessment.

Strategy for data analysis

We aimed to consider data from all subjects with available baseline data (intention-to-treat analysis, ITT). However, data from participants in the experimental group (myMCT) who after the third and final reminder still did not disclose whether or not they had read the manual were removed from the analyses because in these cases changes across time could not clearly be attributed to the method for certain (in contrast, in clinical studies principal investigators usually know if non-completers have taken at least one pill or participated in one therapeutic session so that the ITT procedure can be applied). To provide a rather conservative estimate for the effectiveness of the approach, we retained patients in the myMCT group who had read (part of) the manual but did not perform any of the exercises according to self-report.

Results

Baseline differences

Table I presents the sociodemographic and psychopathological characteristics of the waitlist and the myMCT group at baseline. As can be seen, no significant differences emerged for any of the variables (no stratification procedure was applied). For the OCI-R washing subscore, waitlist patients achieved somewhat elevated scores (P =.06).

Group comparisons

Five patients from the waitlist group and seven patients from the myMCT group did not participate in the post assessment, $\chi^2(1) = .39$, $P > .5$. As the rate of noncompletion was both low and similar across groups (14%), this did not impact on between-group analyses.

Of the remaining 36 patients who received the manual, nine stated that they had not read the manual at all. Three of these experienced technical problems with download. Four gave lack of time as the major reason. Two did not provide any reasons. Thus, the per-protocol myMCT group comprised 27 patients.

Figures 1 and 2 show the results of the pre-post assessment calculated for completers. For this analysis, we added subjects from the myMCT group who did not read the manual to the waitlist group. When we removed this subgroup from the waitlist sample, as one could argue that the nonreaders represent a special group, status and level of significance did not change for any of the analyses. For some OCI-R variables, numerical differences in favor of the myMCT emerged even more strongly.

Across all domains, symptom improvements were stronger for the myMCT group. Significant differences were found for the Y-BOCS total score ($t(71) = 2.68$, $P < .01$; $d = .63$) which primarily reflected greater symptom decline in the myMCT group for the obsessions subscale ($t(71) = 3.00$, $P < .01$; $d = .69$). For the compulsions subscale, no significant difference emerged ($t(71) = .86$, $P > .1$, $d = .20$). The difference on the OCI-R score also achieved significance ($t(71) = 2.92$, $P < .001$; $d = .70$), particularly owing to a greater decline on the subscales measuring obsessing and hoarding. The BDI-SF score also declined significantly more strongly in the myMCT in the range of a medium effect size ($t(71) = 2.25$, $P < .05$, $d = .5$).

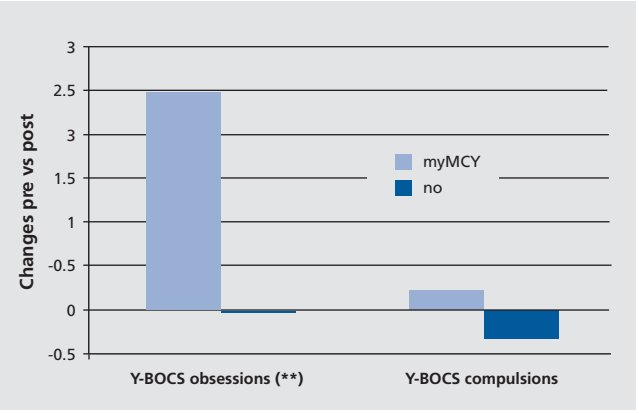

Figure 1. Patients in the myMCT group showed greater improvement on the Y-BOCS total score than the waitlist group who numerically slightly worsened ($P < .01$, $d = .63$). This result was especially owing to a decline on obsessions ($P < .005$, $d = .69$), while symptom decline on the compulsions subscore was marginal and insignificant ($P > .1$, $d = .20$).

Variables	Waitlist (n=43)	myMCT (n=43)	Statistics
Sociodemographic variables			
Sex (male/female)	12/31	16/27	$\chi^2(1) = .85$, $P > .3$
Age	34.09 (9.41)	34.95 (11.87)	$t(84) = .37$, $P > .7$
School education (high school level, yes vs no)	24/19	22/21	$\chi^2(1) = .19$, $P > .6$
Yale-Brown Obsessive-Compulsive Scale (Y-BOCS)			
Obsessions	10.30 (3.51)	10.16 (3.84)	$t(84) = .18$, $P > .8$
Compulsions	9.67 (4.52)	8.44 (5.09)	$t(84) = 1.19$, $P > .2$
Total	19.98 (5.90)	18.60 (6.86)	$t(84) = .99$, $P > .3$
Obsessive-Compulsive Inventory-Revised (OCI-R)			
Washing	8.63 (4.25)	6.91 (4.09)	$t(84) = 1.91$, $P = .06$
Obsessing	10.74 (3.51)	10.72 (3.33)	$t(84) = .03$, $P > .9$
Hoarding	6.26 (3.08)	5.91 (2.77)	$t(84) = .55$, $P > .5$
Ordering	7.63 (3.62)	7.35 (3.99)	$t(84) = .34$, $P > .7$
Checking	8.33 (3.37)	8.67 (4.05)	$t(84) = .43$, $P > .6$
Neutralizing	5.95 (3.13)	6.37 (3.65)	$t(84) = .57$, $P > .5$
Total	47.54 (12.46)	45.93 (12.79)	$t(84) = .59$, $P > .5$
BDI-SF total	13.37 (7.68)	12.72 (7.65)	$t(84) = .39$, $P > .6$

Table I. Baseline differences between the myMCT and waitlist group.

Completer analyses

We separated the initial sample (*n*=86) into three groups according to completion status and adherence: completers (*n*=65), noncompleters (*n*=12), and completers but nonreaders (*n*=9; ie, allocated to the myMCT group but did not read the manual). Nonreaders had significantly reduced baseline Y-BOCS total scores in comparison to noncompleters (*P*=.04). The difference to completers was in the same direction but only approached trend level (*P*=.07). This result was primarily due to differences in the Y-BOCS obsessions subscale: nonreaders showed significantly lower scores compared with completers (P=.01) and noncompleters (*P*=.03). Further, on the OCI-checking subscale nonreaders had lower scores than noncompleters (*P*=.04). At trend level (*P*=.06), nonreaders had lower scores on the obsessing subscale compared with the completers. To summarize, while noncompleters were indistinguishable from completers, nonreaders showed attenuated symptoms and thus perhaps less *leidensdruck* (psychological distress).

Outcome predictors

Additionally, we investigated which baseline variables best predicted outcome, defined as the pre-post difference on the Y-BOCS total score. Patients with high baseline Y-BOCS total scores benefited most from the training. This variable accounted for 57% of the entire variance (R^2=.57, beta=.75, *t*=6.58, *P*<.001).

Reliability

The re-test reliability of the Y-BOCS (*r*=.82, *P*<.001), OCI-R (*r*=.84, *P*<.001) and BDI-SF (*r*=.84, *P*<.001) were satisfactory (retest reliability was determined with scores from the waitlist only). The two scales correlated significantly at the first point in time (*r*=.56, *P*<.001).

Subjective appraisal

Table II provides data on the patients' subjective appraisal regarding the myMCT. The vast majority found the manual useful and adequate for self-administration; 85% of the patients found the myMCT superior to other self-help programs. Approximately two out of three patients reported a symptom decline due to the myMCT. However, half of the patients stated that they did not find the time to study the manual intensively. 25.9% performed exercises over a timespan of at least 14 days, whereby only two patients (7.4%) performed the exercises every day. The largest group (55.5%) performed the exercises for 7 to 14 days. The rest (18.5%) spend less than seven days performing the exercises.

Patients were also asked why they had not regularly performed the exercises. Lack of time (*n*=6) and that contents were partly known (*n*=5) were noted most frequently. 77% of the sample claimed that they would continue to use the myMCT.

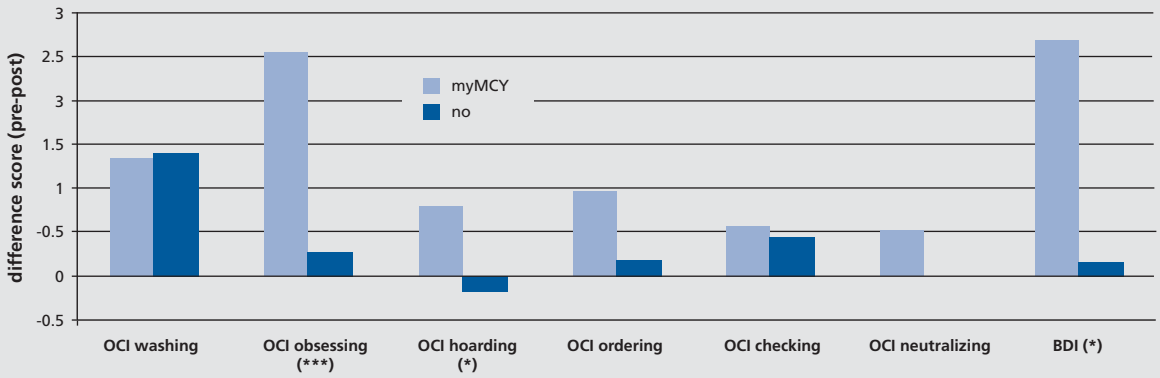

Figure 2. Group differences on the OCI-R and BDI-SF. Patients in the myMCT group showed significantly more decline than the waitlist group on the OCI-R total score (*P*<.001, *d*=.70) as well as BDI-SF (*P*<.05, *d*=.50). Subanalyses showed especially strong improvements for the OCI obsessing subscale. For OCI-R hoarding, the difference also turned out significant, but the improvement in the myMCT group was rather small.

Discussion

The present trial asserts that myMCT is a feasible and effective self-help approach to treat patients with OCD. Medium to strong effect sizes in favor of myMCT were obtained for the Y-BOCS and OCI-R total scores. A fine-grained analysis showed that the decline was especially owing to a decrement on the Y-BOCS obsessions and the OCI-R obsessing subscales. Depression also declined significantly for those who read the e-book. Benefits for compulsions were small and nonsignificant (d=.20). Since the initial release we expanded the myMCT manual with a chapter on exposure which will likely positively impact on compulsions.

In retrospect, two thirds of the patients reported a symptom decline due to myMCT and the manual was deemed useful and comprehensive. The overwhelming majority (85%) found the myMCT more useful than other self-help books. While these findings are encouraging, they clearly fall behind the response rates obtained in formal clinician-administered psychotherapeutic studies,[5,6] which mirrors prior results on self- versus therapist-directed exposure and response prevention.[34] Patients in the myMCT group who refrained from reading the manual had fewer symptoms and possibly less *leidensdruck*.[46]

Before turning to possible implications, some limitations need to be acknowledged. Firstly, myMCT addresses different cognitive and metacognitive distortions and illness models derived from cognitive therapy (eg, normalizing: demonstrating patients that obsessions are common in the population and not a sign of psychopathology per se[47]), recent basic research on cognitive biases (eg, inflated responsibility, perfectionism), Wells' metacognitive therapy (eg, teaching patients that thoughts are not equivalent to actions and the dysfunctionality of rumination), analytic theorizing (especially latent aggression), and self-developed techniques (eg, association splitting[48,49]). Therefore, it is impossible to identify the most potent and efficacious component of the myMCT. We think, however, that some differences, for example between Wells' metacognitive therapy and CBT, have been overemphasized in the past[28] and that overlaps exist between CBT and analytic approaches[29] as well as between cognitive therapy and behavioral-oriented approaches.[50] Because some views are compatible and possibly complementary, we felt the need to integrate different concepts into a comprehensive treatment program. The result may be considered messy relative to pure programs. However, from the patients' comments we are left with the impression that for different patients different domains and exercises were helpful in line with a multifactorial illness model of OCD claiming that different etiologies may cause similar symptoms.

Secondly, the data relied on self-report rendering its results preliminary. While we acknowledge that external validation is the gold standard, recent studies have shown the reliability of self-report instruments and the compatibility of results obtained with the Y-BOCS self-report scale and the conventional expert rating.[44,45] In addition, the validity of internet relative to conventional research has been increasingly demonstrated,[51-54] even with severely impaired groups.[55,56] In line with these findings, the reliability (all scales r>.8) and validity (r=.56 between Y-BOCS and OCI-R) of the instruments were good in the present study.

MyMCT is not aimed to substitute standard psychotherapies but to reach patients unwilling or unable to undergo such therapies. As we have laid out in the introduction, the majority of patients does not receive (competent) help and if so, only at a very late stage. Low-threshold help and knowledge translation is thus extremely important at ear-

Item	Percentage endorsement
The myMCT is appropriate for self-administration	96%
My OCD symptoms have decreased due to the myMCT	63%
The manual was written comprehensively	100%
I found the manual useful	96%
I was able to regularly perform the exercises	78%
I did not find the time to study the manual intensively	52%
Other persons helped me with the myMCT	4%
I would find the myMCT more helpful in combination with a direct psychotherapy	67%
I found the myMCT more helpful than other self-help approaches	85%

Table II. Subjective appraisal of the myMCT (n=27).

lier stages, before symptoms become chronic, and psychosocial and work functioning deteriorate, which may further aggravate psychological problems. Presumably, many of the patients participating in the study would not have undergone a formal clinical study. However, in future studies, we will test the utility of myMCT as a complement or add-on of regular psychotherapies.

To conclude, myMCT is a promising novel program targeting common cognitive biases in OCD. Whereas those biases identified by the Obsessive Compulsive Cognitions Working Group[23-26] are at its core, the program additionally incorporates other techniques (association splitting, detached mindfulness). It may not only serve as a self-help e-book, but its exercises, diagrams, and illustrations could also facilitate planning and performing psychotherapies, especially in view of increasing reports about a large number of therapists not adhering to standard therapy guidelines.[19] ❑

Appendix. The myMCT comprises 14 sections which deal with the following themes.

Section	Aim (literature)	Content
1. Bad thoughts are not normal?	Targets the false metacognitive belief that worries relating to contamination, aggression, and magical beliefs are abnormal and "bad" per se[47]	Patients are asked to guess how many of 100 healthy subjects endorse items with typical OCD content. The learning aim is to show that OCD-related worries are common in the general population and are not a sign of illness per se. What is fundamentally different between healthy and OCD participants is the appraisal of such cognitions. A second part deals with negative and aggressive feelings and ways to cope with such attitudes in a socially competent manner.
2. Evil thoughts cause evil actions?	Targets false metacognitive belief that thoughts are not (much) different from actions (thought-action fusion)[28]	Patients are given multiple examples that subjectively evil or bad ideas must not necessarily be translated into actions. Different kinds of fusion beliefs are challenged by behavioral experiments.
3. Thoughts have to obey will?	Targets false metacognitive belief that thoughts must obey will	Examples are presented where thoughts do not obey will (eg, intrusive thoughts, normal slips of the tongue, sudden creative ideas). Patients are encouraged to allow their thoughts some degrees of freedom as surveillance and suppression lead to a paradoxical increase of intrusions.
4. The world is dangerous?	Targets dysfunctional cognitive belief that one is at heightened vulnerability for disaster (ie, overestimation of threat, unrealistic pessimism)[57-59]	Readers are told about the tendency of many patients to overestimate their vulnerability for negative events, to overestimate negative consequences, and to process fear-related stimuli more efficiently than other classes of events. Exercises teach novel strategies to explore the environment (attention splitting: shift to neutral stimuli from the same modality as the feared stimuli) and exercises involving the calculation of base rates emphasizing that every new precondition decreases the likelihood for an event to occur.
5. Bad thoughts should be suppressed?	Targets dysfunctional coping strategy to get rid of thoughts by means of thought suppression[60]	The paradoxical increase of thoughts due to active suppression is demonstrated using a variant of the "white bear" exercise. Alternatively, patients are instructed to exercise detached mindfulness and to work with imaginations to attenuate bothersome thoughts (eg, to imagine a storm from a safe distance, whereby the bypassing thunderclouds stand for the obsessive thoughts).
6. If feelings signal alarm, there is real danger?	Targets dysfunctional metacognitive beliefs about	Strong emotions are often misinterpreted as signals of approaching dangers and resulting emotions often guide perception and appraisal. Patients are

	the importance and validity of emotional states	shown that strong emotions are prone to false alarms and are often nurtured by peripheral factors (eg, coffee, alcohol etc.). In one exercise, patients are encouraged to actively dramatize their fears to experience that the emotional tension will decrease rather than increase by means of this intervention.
7. OCD poisons my thoughts forever?	Teaches a new technique to attenuate and "decontaminate" OCD cognitions[48,49]	The technique association splitting and its cognitive underpinning, the fan-effect,[61] are explained to patients. Basically, patients learn to associate "toxic" cognitions (eg, cancer=death) with neutral concepts (eg, cancer=zodiac sign) which automatically weakens the connections between an obsessive cognition to negative associations.
8. I am always responsible?	Targets false cognitive belief that negative events are primarily owing to oneself (inflated responsibility)[62]	Patients typically overestimate their share for the occurrence of negative events. Exercises involve the pie-chart technique: Patients first estimate the share that others and circumstances have for a negative event before evaluating their own share/responsibility. Another exercise is to view the same subjectively disastrous event that happened to oneself from the perspective of a good friend. This usually brings double standards to light which are subsequently challenged.
9. Good is not good enough? (Perfectionism)	Targets false cognitive belief that one has to be or act perfectly[23-26]	The disadvantages and dysfuntionality of perfectionist attitudes are brought to the patients' attention. It is made clear that even role models such as actors and political leaders are not perfect if you look behind the façade. In one of the exercises the patient should deliberately commit mistakes in order to experience that feared consequences are minor and largely exaggerated.
10. Seeking for truth	Targets dysfunctional beliefs about intolerance of ambiguity[23-26]	Many patients seek for truth even in areas where judgements are in the eye of the beholder and may vary across time, culture, and between subjects (eg, beauty, intelligence). Patients are encouraged to identify areas where a consensual opinion cannot be reached because they depend on taste (eg, arts), or where resolution would not even be welcome (eg, surprise parties).
11. Rumination helps?	Targets dysfunctional beliefs about the positive effects of rumination[28]	The dysfunctionality of rumination is demonstrated. Exercises are introduced such as the stop-technique, association splitting, and rumination postponement, the latter was inspired by Freeman and DeWolf.[63]
12. OCD as a brain disease?	Questions an overly biologistic illness model	While some patients are relieved by the view that their obsessions are caused by a brain disease, for others this view fuels fatalism and hopelessness. Some patients are convinced that having a brain defect means that their problems can only be alleviated through brain surgery or pills. While obsessive thoughts like all cognitive processes stem from activations in the brain, this does not imply that those activations are the cause for obsessive thoughts. In addition, the positive effects of psychotherapy on brain metabolism are outlined.
13. I am worthless?	Targets dysfunctional beliefs contributing to low self-esteem and depression	The participant is referred to module 8 of our metacognitive training for schizophrenia patients (MCT) which can be obtained cost-free via www.uke.de/mkt in various languages including English. This module presents generic/illness-unspecific exercises on typical depressive cognitions, as one to two thirds of OCD patients fulfill diagnostic criteria for an affective disorder.
14. Am I going insane?	Deals with the exaggerated worry of OCD patients of having or developing schizophrenia[3]	Many OCD patients are worried that they have or might get schizophrenia. Information on delusions and schizophrenia is provided and the core differences between OCD versus schizophrenia are contrasted (eg, doubt vs. conviction, different content).

¿Cómo tratar lo intratable? Eficacia de un programa de auto-ayuda de entrenamiento metacognitivo (miEMC) para el trastorno obsesivo-compulsivo

A pesar de los avances en la comprensión y tratamiento del trastorno obsesivo-compulsivo (TOC), muchos pacientes que se someten a alguna intervención presentan una reducción incompleta de los síntomas. Nuestro grupo ha desarrollado un manual de auto-ayuda titulado "Mi entrenamiento metacognitivo" (miEMC) orientado a aumentar la conciencia de los pacientes acerca de los prejuicios cognitivos que parecer favorecen el TOC. El entrenamiento está planeado particularmente para pacientes que en ese momento son incapaces o no están dispuestos a asistir a una terapia adecuada, o en casos donde no se dispone de esa opción terapéutica. Para el presente estudio se reclutaron por internet 86 individuos que padecían de un TOC. Después de la evaluación inicial a los participantes se les envió por email el manual miEMC o se los asignó a un grupo en lista de espera. Luego de cuatro semanas se realizó una segunda evaluación. El grupo con miEMC mostró una mejoría significativamente mayor para los síntomas del TOC de acuerdo al puntaje total de la escala de Yale Brown (Y-BOCS) en comparación con el grupo de la lista de espera (d=0,63), especialmente para las obsesiones (d=0,69). Diferencias moderadas o marcadas aparecieron para el inventario obsesivo-compulsivo-revisado (OCI-R) (d=0,70) y el inventario de depresión de Beck en su forma acortada (BDI-SF) (d=0,50). Esta investigación aporta la primera evidencia de la eficacia del miEMC en el TOC.

Comment traiter ce qui ne l'est pas : efficacité d'un programme d'entraînement métacognitif de développement personnel (myMCT) pour le trouble obsessionnel compulsif

Malgré des progrès dans la compréhension et le traitement du trouble obsessionnel compulsif (TOC), de nombreux patients ayant été traités ne présentent qu'une diminution partielle des symptômes. Notre groupe a mis au point un manuel de développement personnel intitulé « Ma formation métacognitive pour le TOC » (« myMCT »), dont le but était de faire prendre conscience au patient des biais cognitifs semblant favoriser le TOC. La formation est particulièrement destinée aux patients actuellement incapables ou réticents à suivre une thérapie adéquate, ou au cas où ce traitement n'est pas disponible. Pour cette étude, 86 patients atteints de TOC ont été recrutés sur internet. Après l'évaluation initiale, les participants ont été répartis en 2 groupes : un qui recevait immédiatement par e-mail le manuel « myMCT », l'autre sur liste d'attente. Après 4 semaines, une seconde évaluation a été réalisée. Les symptômes du TOC ont été améliorés de façon significative dans le groupe « myMCT », selon le score total au Y-BOCS comparé au groupe de la liste d'attente (d = 0,63), en particulier pour les obsessions (d = 0,69). Des différences légères à importantes ont été enregistrées à l'OCI-R (d = 0,70) et au BDI-SF (d = 0.50). Ainsi, ces analyses ont permis de mettre en évidence de premiers éléments en faveur de l'efficacité du « myMCT » pour le TOC.

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