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Relapse Prevention and Acute Treatment for Chronic Depression: One Treatment Concept for Two Forms of Depression?

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Keywords
Relapse prevention · Recurrent depression · Chronic depression · Cognitive vulnerability · Decentering · Motivation

Summary
Recurrent and chronic depression as the most common forms of depression have been attracting growing attention in research and clinical practice in recent years. Due to high rates of relapse and chronification, new treatment approaches were designed in the field of relapse prevention, but also for the acute treatment of chronic depression. This review provides an overview of substantial etiology models and treatment methods for recurrent and chronic depression. Here, it is hypothesized that cognitive processes similar to those that are believed to be crucial in the emergence of a relapse are also contributing to maintaining depressive symptoms in chronic depression. The present article focuses on the modification of these intrapsychological factors through methods of decentering as a way of modifying the perception of cognitive processes, as well as on boosting motivational aspects with regard to a more efficient long-term prevention. The integration of new approaches to alter cognitive and motivational processes is a promising perspecitve for the development of a more effective and overarching cognitive concept.

Schlüsselwörter
Rückfallprophylaxe · Rezidivierende Depression · Chronische Depression · Kognitive Vulnerabilität · Dezentrierung · Motivation

Zusammenfassung
In den letzten Jahren haben rezidivierende und chronische depressive Störungen als häufigste Verlaufsformen der Depression in der Forschung und klinischen Praxis an Aufmerksamkeit gewonnen. Aufgrund hoher Rückfall- und Chronifizierungsraten wurden neue Ansätze in der Rezidivprophylaxe, aber auch in der Akuttherapie chronischer Depressionen entwickelt. Der vorliegende Artikel liefert einen Überblick über zentrale Ätiologiemodelle und Behandlungsverfahren bei rezidivierender und chronischer Depression. Dabei wird die These aufgestellt, dass ähnliche kognitive Prozesse, wie sie für die Entstehung eines Rezidivs angenommen werden, auch zur Aufrechterhaltung der depressiven Symptomatik bei chronischer Depression beitragen. Der Fokus dieses Artikels liegt auf Veränderungen solcher intrapsychischen Mechanismen durch Methoden der Dezentrierung als eine Form der bewussten Wahrnehmung kognitiver Prozesse sowie auf der Förderung motivationaler Aspekte im Hinblick auf eine effizientere Langzeitprophylaxe. Die Integration neuer Ansätze zur Modifikation kognitiver und motivationaler Prozesse stellt eine erfolgversprechende Perspektive für die Entwicklung eines wirkungsvolleren kognitiven Gesamtkonzepts dar.

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Introduction

Depression, with a lifetime prevalence of more than 16%, is one of the most common mental disorders, one that is most serious in its consequences [Kessler, 2002]. One of the reasons for the severe impairment associated with depression is its usually recurrent or chronic progression [Hardeveld et al., 2013]. There has been a drastic increase in the disease burden caused by depression in the last decade, including inpatient treatment and inability to work [Bitzer et al., 2011; Deutsche Rentenversicherung Bund, 2015]. Nevertheless, such chronic depression is often neglected in health-care practice. A health-care epidemiology study (Bertelsmann-study [Melchior et al., 2014]) found that in Germany, 65% of patients with the diagnosis of a depressive disorder had a chronic-recurrent form; of these, however, 31% were receiving no treatment at all, only 28% were receiving appropriate psycho-pharmacological treatment, 6% psychotherapy only, and 12% a guidelines-compliant treatment with either a combination of medications and psychotherapy or inpatient treatment. Given such deficiencies in care, a targeted treatment of this patient group is of great importance.

Recurrent and Chronic Forms of Depression

Major depression can occur as a single episode in a person's life, although a recurrent or chronic form is more common. A recurring disorder is characterized by repeated depressive episodes, with symptom-free phases in the intervals between the episodes. About half of the patients suffer a recurrence after the first depressive episode; after 2 to 3 episodes, the relapse rate is as high as 70–80% [Keller and Boland, 1998].

Depression is considered to be chronic when there are persistent depressive symptoms for at least 2 years [American Psychiatric Association (APA), 2013], regardless of the number of previous attempts at therapy, and is thus to be distinguished from therapy-resistant depression [Fava, 2003]. Symptoms become chronic for 1 out of 5 acutely depressed patients [Hölzel et al., 2011]. Chronic depression is also associated with higher comorbidity and suicide rates and a worse treatment prognosis [Gilmer et al., 2005; Uher et al., 2009].

In the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; [APA, 2013; Falkai and Wittchen, 2014]), changes were made in the diagnosis of chronic depression, among other areas. The subtypes of the persistent depressive disorders (e.g., dysthymia, chronic depressive disorder) have been combined into the term 'persistent depressive disorder', which, on the diagnostic level, encompasses the various forms and constitutes an advance in the classification of depressive disorders. The new edition of the International Classification of Diseases (ICD) [World Health Organization, 1992], planned for 2017, aims to more closely resemble the DSM, so that changes in the diagnostics of depressive disorders may also be considered in the ICD-11.

Etiological Models for Recurrent and Chronic Depression

While there are many explanatory approaches to the primary manifestation of depression, there are far fewer specific models for the recurrent or chronic progression of the disorder. Teasdale's 'differential activation' model [1988] is the most important one for the etiology of depressive relapses. This approach extends the cognitive theory of Beck et al. [1979], according to which latent persistent dysfunctional beliefs are activated by stressful events. Teasdale postulated that not only stressful events, but even a negative mood, can trigger a depressive relapse, since during previous depressive episodes this mood has been associated with a pattern of negative information processing in memory. This 'cognitive reactivity' is automatic and, as demonstrated in priming experiments, can be caused by the induction of a sad mood (for example, by a film) [e.g., Gemar et al., 2001]. As a result, not only stressful situations, but also a depressive mood per se and the negative information-processing patterns associated with it, can trigger a recurrence, by a negative cascade effect (fig. 1). Longitudinal studies also suggest that such cognitive reactivity is a risk factor for depressive relapses [e.g., Lewinsohn et al., 1999; Segal et al., 2006].

This model of cognitive reactivity serves primarily to explain *recurrent* forms of depression; based on this model, the 'mindfulness-based cognitive therapy', developed by Teasdale (MBCT; [Segal et al., 2002]), was initially designed exclusively as maintenance therapy for patients after a major depressive phase as a form of relapse prevention (see the section below on 'State of Research').

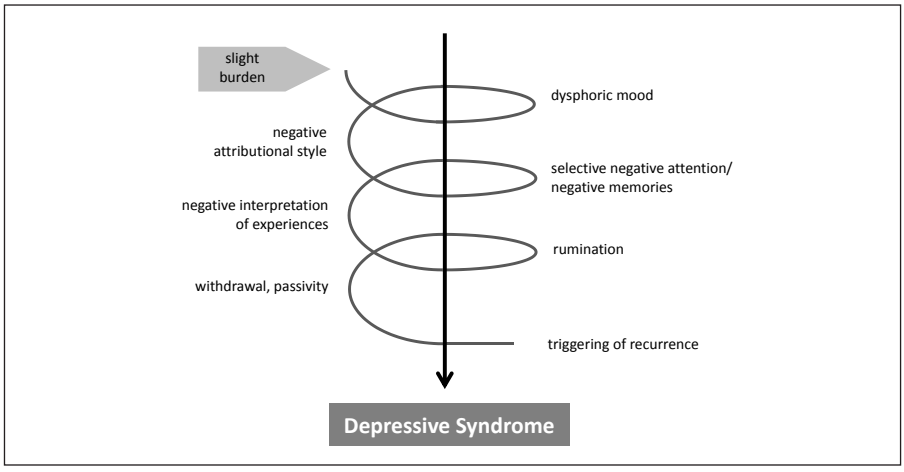

Fig. 1. Cognitive vulnerability as a trigger of depressive relapse (according to Teasdale [1988]).

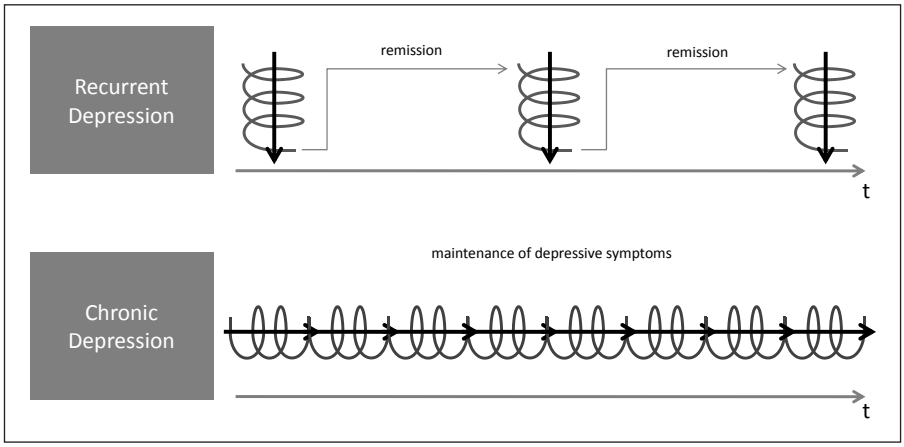

Fig. 2. Transfer of the model of cognitive vulnerability to chronic depression.

The etiology of *chronic* depression, however, was explained primarily by stable predisposing factors such as dependent, anxious, and self-critical personality traits as vulnerability factors, in addition to inadequate processing of early trauma [Agosti, 2014; Hentze et al., 2016; Zuroff et al., 2004]. McCullough [2003; McCullough et al., 2015] hypothesizes that early negative life experiences, especially trauma, lead to interpersonal avoidance and ultimately to a deficit in social-emotional development; he sees in this an explanation for the chronification of depression. While there is empirical evidence of interpersonal avoidance in chronically depressive patients [e.g., Brockmeyer et al., 2015], findings differ with regard to social-emotional abilities. Studies in which patients' interactional skills were studied in social situations do support the hypothesis of an interpersonal deficit [e.g., Constantino et al., 2012; Klein et al., 2016]. However, a lack of social empathy according to the 'theory of mind' has not yet been clearly demonstrated [Wilbertz et al., 2010; Van Randenborgh et al., 2012].

From a cognitive perspective, the question arises of whether the emergence of chronic and recurrent forms can actually be explained by different factors. From the standpoint of Teasdale's model, cognitive processes similar to those hypothesized for recurrent depression would be transferable to maintenance of the depressive symptoms in chronic depression, in the sense of a continuous, persistent vicious cycle (fig. 2). The persistence of depressive symptoms would be evoked by such a self-perpetuating vicious cycle, by which negative moods and dysfunctional information-processing (attributions, memories, attentional processes), as well as the resulting behavioral patterns, intensify and reinforce one another, without resulting in the termination or 'exit' from the depressive cycle that occurs in the recurrent form. Thus, a key starting point would be the ability to free oneself from this vicious cycle.

Specific Treatment Approaches for Recurrent and Chronic Depression

While cognitive-behavioral therapy (CBT) and pharmacotherapy are equally effective in the treatment of acute depression, CBT is superior to acute pharmacotherapy in its long-term effects [Cuijpers et al., 2013]. Nevertheless, Vittengl et al. [2007], in a meta-analysis, found average relapse rates after CBT of 29% after 1 year and 54% after 2 years. In recent years, a number of treatment approaches to relapse prevention have been developed, which, in addition to continuing psychological interventions after successful acute therapy (e.g., continuation-phase cognitive therapy, C-CT), involve relapse-prevention strategies for patients in remission (e.g., MBCT) [Bockting et al., 2015]. Chronic depression, which is often not recognized and adequately treated [Keller et al., 1995], is attracting increasing attention. Interpersonal therapeutic approaches are of particular interest here (e.g., cognitive behavioral analysis system of psychotherapy, CBASP), whereby in first pilot studies also mindfulness-based meditation is applied to chronically depressed patients.

State of Research

C-CT [Jarrett et al., 1998] is one of the first approaches to explicitly applying strategies learned in CBT to future problem situations as potential triggers of depressive relapses. Building upon cognitive techniques, the core element of C-CT consists of the transfer of skills for the self-directed modification of cognitions (e.g., dysfunctional beliefs) and depressive behavior patterns (e.g., social withdrawal) to cope with future stressful situations.

By comparison, *'well-being therapy'* (WBT) [Fava and Ruini, 2003] extends traditional cognitive therapy for resource-oriented interventions to the promotion of psychological well-being and a balanced lifestyle, in order to reduce vulnerability to depressive relapses. Here, according to Ryff's [1989] model of psychological well-being, motivational aspects and developmental psychology play a key role in achieving lasting psychological recovery.

MBCT [Segal et al., 2002], which was originally exclusively a relapse-prevention approach, harks back directly to Teasdale's [1988] theory, which combined cognitive strategies with meditative techniques to encourage meta-cognitive awareness. The objective is not the explicit modification of negative thoughts/feelings, but a non-judgmental, accepting attitude [Williams et al., 2007], which contributes to decoupling the dysfunctional relationship between intrapsychic experiences and depressive response patterns. The deliberate distancing of oneself from thoughts/feelings is intended to

prevent the negative cascade effect of dysphoric mood and dysfunctional processing patterns at an early stage (fig. 1), and to counteract the formation of a 'depression spiral'.

Such psychological interventions have been shown in randomized control trials to be effective for relapse prevention in recurrent depression [Bockting et al., 2015], especially in high-risk patients with a history of 3 or more depressive episodes, unstable remission, early onset, as well as early trauma [e.g., Fava et al., 2004; Jarrett et al., 2013; Ma and Teasdale, 2004]. Current meta-analyses [Biesheuvel-Leliefeld et al., 2015; Clarke et al., 2015] demonstrated that preventive psychological interventions (CBT, MBCT, interpersonal psychotherapy (IPT)) significantly lowered the risk of depressive relapse compared to control groups. Biesheuvel-Leliefeld et al. [2015] concluded that psychological interventions were significantly superior to ongoing pharmacotherapy, and that the efficacy of the individual procedures did not differ significantly from one another, but their effectiveness increased when the patient received treatment during the acute depressive phase (psychological intervention, pharmacotherapy, or combination therapy). The meta-analysis by Clarke et al. [2015] showed differences in the long-term effects of the interventions. While the effect of CBT lasted 2 years, there was no long-term effect after IPT and no data about the long-term effects of MBCT.

Generally speaking, chronic depressive patients respond worse to standard psychotherapy (e.g., CBT) than do non-chronic patients [Jobst et al., 2016; Thase et al., 1994], and the success rate of pharmacotherapy for chronic depression is generally only 50–60% in controlled studies [Keller et al., 2000; Thase et al., 1996]. In a meta-analysis by Cuijpers et al. [2010] on the efficacy of psychotherapy for chronic depression, psychotherapy (CBT, IPT, CBASP) did achieve a significant, but only small, effect compared to the control group. The effect compared to pharmacotherapy was even less. Combination therapy was superior to both psychotherapy and pharmacotherapy alone.

There have been only a few studies on the effectiveness of psychological treatments for chronic depression. In a network meta-analysis [Kriston et al., 2014] that included only IPT and CBASP alongside pharmacotherapy, IPT was less effective than pharmacotherapy. The combination of these was more beneficial than pharmacotherapy alone for chronic major depression, but not for dysthymia. No differences were found between CBASP and pharmacotherapy or a corresponding combination therapy. A recently published meta-analysis by Negt et al. [2016] showed medium to large effect sizes for CBASP in comparison to IPT and 'treatment as usual' (TAU), small effect sizes in comparison to other psychological treatment approaches, and no difference between CBASP and pharmacotherapy.

On the basis of current research, it is recommended to prioritize interpersonal aspects in the psychotherapeutic treatment of chronic depression [Jobst et al., 2016]. A possible supplement to interpersonal therapeutic approaches in chronic depression is the combination of cognitive therapy and mindfulness-based meditation, as attested by initial pilot studies [e.g., Barnhofer et al., 2009; Strauss et al., 2012]. However, in a direct comparison of the efficacy of MBCT and CBASP [Michalak et al., 2015], there was a strong statistical trend in favor of CBASP, from which the authors draw the conclusion that active, problem-focused methods may be more effective than passive, self-referential methods such as MBCT. Another reason for the worse performance of MBCT could be neglect of positive emotional development.

In the following, we present our own studies, which combine core elements of cognitive therapy with meditation and resource-oriented approaches. The results suggest that these approaches could be an effective extension of the conventional treatment concept for both recurrent and chronic depression.

Study on Cognitive Maintenance Therapy

A multicentric, randomized controlled study [Stangier et al., 2013] assessed the effectiveness of *cognitive maintenance therapy* (CMT) [Risch et al.; 2012] – an integrative treatment for depressive relapse prevention that combines elements of MBCT, acceptance and commitment therapy (ACT) [Hayes et al., 1998], and resource-activating interventions, along with cognitive therapy, and was specifically designed for individual therapy. The key points here are the construction of a cognitive process model of depression to identify individual psychological risk factors; the encouragement of mindful, non-judgmental perception and acceptance of negative thoughts/feelings; the modification of maladaptive beliefs; as well as establishing value-centered behavior patterns.

The study compared the efficacy of CMT with psychoeducation. Both treatments consisted of 16 sessions over 8 months, in addition to TAU (usually concomitant psychiatric treatment). 180 patients with 3 or more previous depressive episodes, in at least partial remission, were randomly assigned to the 2 treatments. Follow-up assessments of relapse rates were made after 12, 24, and 36 months.

In subjects with 5 or more depressive episodes, CMT reduced the relapse rate significantly more than psychoeducation (50 vs. 73.2%) within 12 months; this effect persisted even after 24 months. Contrary to hypothesis, CMT for patients with fewer than 5 episodes was not significantly different from psychoeducation in reducing the rate of relapse (51 vs. 60%). These results suggest that CMT has a positive effect on the risk of relapse in high-risk patients, whereas in patients with a moderate risk of relapse, non-specific interventions (e.g., regular therapeutic contact, information about the disorder) and structured psychoeducation achieve similar protective effects. These findings could be due to the fact that highly vulnerable patients were able to stop and correct their severe ruminative tendencies and associated processes of depressogenic build-up with specific skills taught in CMT.

Pilot Studies on Mettā Meditation for Depression

The explicit fostering of positive emotions is often ignored in the traditionally deficit-oriented treatment of depression. However, the absence of negative emotions does not necessarily lead to increased positive affect [Hofmann et al., 2012; Werner-Seidler et al., 2013]. Mettā meditation according to Salzberg [1995] explicitly emphasizes a positive attitude toward oneself and others. A meta-analysis based on non-clinical samples [Galante et al., 2014]

showed that this type of meditation not only reduces depressive moods, but also improves psychological well-being and social relationships. This was replicated in initial clinical studies [e.g., Hinton et al., 2013; Johnson et al., 2011], but should be further verified in randomized controlled trials.

In an initial uncontrolled pilot study [Hofmann et al., 2015], we reviewed the practicality and potential therapeutic benefits of a group program that combines Mettā meditation with core elements of MBCT, for patients with a persistent depressive disorder according to DSM-5, including both the dysthymic and chronic depressive forms. The study investigated whether this program would quickly lead to a significant improvement of depressive symptoms, as well as to a decrease in negative affect and an increase in positive affect. By concentration on guiding principles that were predetermined at first and could be individually crafted later on, it was intended to enhance the positive emotional experience as well as the motivation for positive activities and interpersonal relationships [e.g., Fredrickson et al., 2008; Garland et al., 2010]. Formulaic wishes embedded in the meditation should gradually be addressed mentally by the participants to various persons, along the lines of the following guiding principles: 'I wish that you will feel safe'; 'I wish that you will be satisfied and happy'; 'I wish that you will be healthy'; 'I wish that you will find inner peace and quiet'.

Eight patients at the Goethe University Frankfurt, with the diagnosis 'persistent depressive disorder', took part in a comprehensive 9-session group program (including a half-day retreat). Mindfulness- and Mettā-based treatment protocols were supplemented by cognitive-therapeutic elements (e.g., discussing the relationship between meditation and depression) in order to make the contents more accessible to the participants. The study showed a significant improvement in depressive symptoms (d = 1.90), a significant decrease in negative affect (d = 0.92), and a significant increase in positive affect (d = 0.94), as well as significant changes in emotion regulation in the form of decreasing suppression of negative feelings (d = 0.58) and increasing acceptance (d = 0.50).

In parallel to this, 10 participants at Boston University who met the criteria for dysthymia were studied in a 12-session program that was even more intensively focused on Mettā meditation. As hypothesized, and with overall very large effect sizes, depressive symptoms declined (d = 3.33); positive emotions increased (d = 1.63); negative affect decreased (d = 1.98); and rumination decreased (d = 1.52) [Hofmann et al., 2015].

Despite the manifest methodological weaknesses of these pilot studies, the results look promising and may indicate that the Mettā meditation approach could offset limitations in the efficacy of mindfulness-based procedures for treatment of chronic depression.

Mechanisms of Action in the Treatment of Recurrent and Chronic Depression

The findings presented in the previous section illustrate the effective and promising use of mindfulness and Mettā meditation for treatment of depression, and suggest that these meditative techniques address core areas of depression, the patients' cognitive as well as motivational problems. In what follows, we consider more precisely the potential mechanisms of action and general factors affecting the relapse-prevention treatment of depression, from a cognitive as well as motivational perspective.

Ability to Distance Oneself from Intrapsychic Processes

As previously mentioned, Teasdale's 'differential activation' model [1988], looking at the vicious cycle of negative mood, negative cognitive processes, and negative way of thinking, sees there the decisive factor not only in triggering depressive relapses, but also in the development of chronic depression. Teasdale et al. [1995] derive from this the therapeutic consequence of increasing attentional control and thus improving the ability to distance oneself from the vicious cycle.

Teasdale et al. [2002], in the context of introducing Buddhist meditation techniques, later presented other terms to describe the process of distancing from the vicious cycle: meta-cognitive awareness, mindfulness, decentering, and disidentification. Sometimes these terms are used as synonyms; sometimes they relate to different aspects of the processes involved in distancing: conscious perception of experiences (thoughts/feelings), perception of these as temporary mental events, as well as the distinction between self and reality [Heidenreich and Michalak, 2003].

The conscious, non-judgmental perception and acceptance of negative feelings and thoughts is seen as a prerequisite for distancing not only in the cognitive therapy of Beck et al. [1979, pp 36f], the meta-cognitive therapy of Wells [2008], and MBCT, but also in ACT [Hayes et al., 1999]. In the original form, Hayes in the 1980s called the therapy 'Comprehensive Distancing' [Zettle, 2005]. Hayes sees distancing itself as altering the functionality of thoughts, a result which is to be brought about primarily by dissolving the identification of experience and linguistic representation as a thought (cognitive defusion). With ACT, in contrast to MBCT, the distancing is embedded in a broader improvement of psychological flexibility and also links the latter with the explicit motivation for active change on the basis of one's personal values (value-based action).

Both approaches, MBCT and ACT, emphasize their distinction from traditional cognitive therapy, in which the disputation of dysfunctional thoughts in a Socratic dialog is *explicitly* aimed more at assessing the reality of a thought and *changing* the content of thoughts by re-evaluation, and less at a changed, more distanced attitude toward thoughts. It should be noted that Beck [1976] not only regarded acceptance, but also distancing, in the philosophical context of the stoicism underlying his approach, as a process *implicitly* involved in cognitive restructuring [Robertson, 2016]. This view is supported by a number of empirical studies, according to which improved decentering ability is also a mediator in classic CBT of long-term therapeutic success [Fresco et al., 2007]. Conversely, the effect of MBCT or ACT could implicitly be associated with changes in dysfunctional beliefs – an effect that has not yet been sufficiently evaluated [Van der Velden et al. 2015].

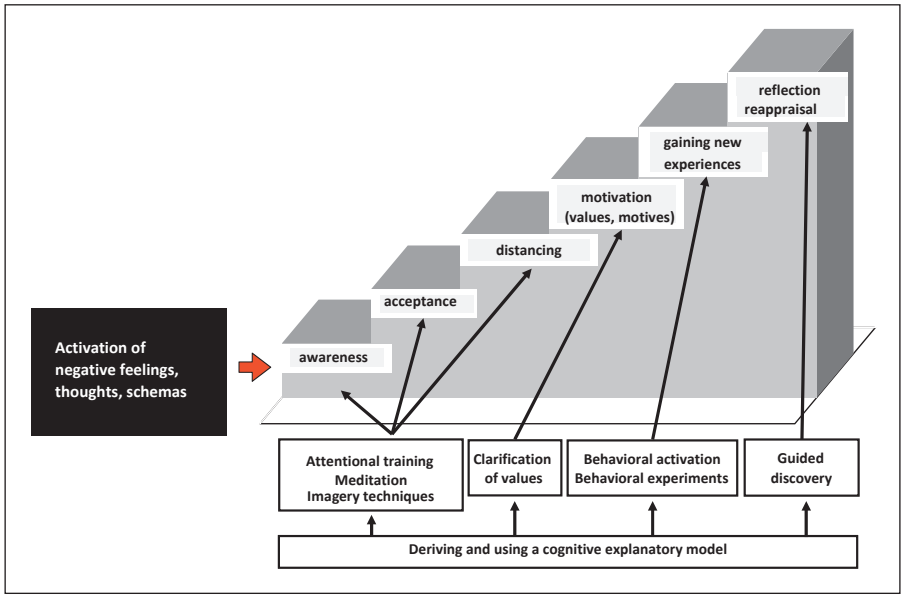

Fig. 3. Cognitive model of change process in the treatment of depression.

Gross' [1998] model of emotion regulation offers the possibility of integrating into the same process model the various active components that especially play a role in the treatment of depression. Using this emotion regulation model, we have constructed a 'stage model' of cognitive processes (fig. 3), in which the conscious perception and distancing of negative thoughts and feelings are an important starting point for further interventions. It builds upon empirical findings that the ability to counter distorted automatic processes with corrective reflexive processes is reduced [Kross et al., 2012].

The findings on effectiveness of emotion regulation strategies [Webb et al., 2012] suggest that a re-evaluation of the triggering situation or of one's own reaction is less effective than a re-evaluation by changing one's perspective; for instance, behavioral activation [Martell et al., 2010; in German: Martell and Dimidjian, 2015] and behavioral experiments [Bennett-Levy et al., 2004] make new experiences possible and, as a result, the establishment of functional cognitive schemata. The distancing of dysfunctional processing patterns is also a prerequisite for undistorted processing of these experiences. Another obstacle, however, is the limited motivation of depressed patients to deal with new experiences. In the schema depicted here, this aspect is identified by the clarification of values and motives. However, we would like to discuss in more detail below the problems of motivation in depressed patients.

Emergence and Maintenance of Depression: A Motivational Perspective

Cognitive models of chronic or recurrent depression [Beck et al., 1979; Teasdale, 1988] postulate that persistent negative thought patterns play a key role in the emergence and maintenance of depressive symptoms. Although it is largely undisputed that depression is associated with negative cognitions, some questions remain unanswered by these cognitive models: What common psychological mechanism underlies recurrent and chronic forms of depression? What explanations can be found for why depressed patients – despite an intensive period of cognitive relearning during CBT – remain to some extent stuck in their negative, distorted thought patterns, or fall back into them? A complementary perspective on the formation and progression of depressive symptoms includes less cognitive and more motivational determinants of a psychological mechanism that is common to all forms of depression. The authors hypothesize that the activation and persistence of dysfunctional cognitions is based not only on a cognitive deficit in the use of compensatory adaptive strategies (see the section above, 'Ability to Distance Oneself from Intrapsychic Processes'), but also on a perseverative *intentional/motivational* inability on the part of those affected to initiate such adaptive processes at all. Why should depressed patients have a kind of 'motivational maintenance system' [cf. De Jong-Meyer and Engberding, 1996], i.e., a lack of motivation to counteract actively negative thought patterns, or a system that fosters the intention to remain fixed in the accustomed negative patterns of thinking and feeling?

According to expectancy-value models for the formation of intended actions [Atkinson, 1957; Rotter, 1954], an individual's motivation to display a certain behavior depends on the person's expectation as to whether this behavior will lead to a reward and what the personal value of this reward is. Action-result expectations are, therefore, important catalysts of self-regulation, which can directly influence intended actions [Fishbein and Ajzen, 1975; Roese and Sherman, 2007]. A more recent conception of the expectancy-value approach assumes that not only behaviors, but also emotional states are associated with expectations regarding their reward value. According to this assumption, individuals would also be motivated to activate/maintain negative emotions as long as they expect a desirable benefit [Tamir et al., 2015]. In line with this assumption, it has been shown in a number of experimental studies that individuals deliberately reinforce negative emotions such as anxiety or anger if they think these feelings will benefit them (e.g., the expectation that in a competitive task, the emotion 'anger' leads to better performance) [Porat et al., 2016; Netzer et al., 2015; Tamir and Bigman, 2014].

Do these findings apply to depression and a lack of motivation to counteract negative thoughts and feelings? An investigation by

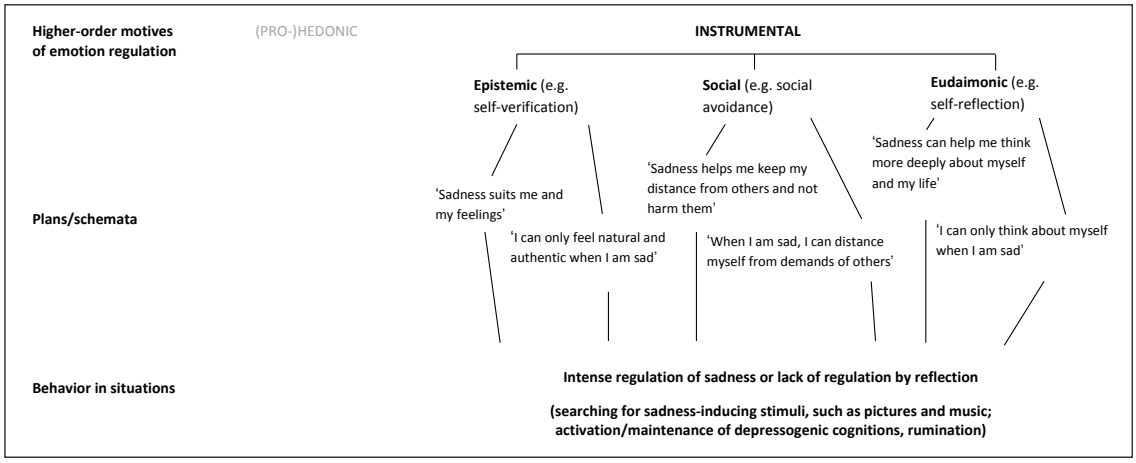

Fig. 4. Hypothetical relationship between (instrumental) higher-order motives of emotion regulation, depressogenic schemata, and the activation/maintenance of dysfunctional behaviors and cognitions in depression.

Millgram et al. [2015] provides at least indirect evidence for this hypothesis. The authors gave depressive and healthy participants the choice of deliberately exposing themselves to sad, happy, or neutral stimuli (e.g., to select sad vs. happy pictures). The findings showed that depressive participants chose stimuli that trigger feelings such as sadness or dejection significantly more often than did the control group; this could not be explained by the current different moods of the participants. Consistent with these findings, depressed participants were more likely than healthy control subjects to say they usually wanted to feel sad. How can we explain this preference for sadness and the active maintenance of sad feelings in depression? What persistent motives might be behind this? In a first pilot study [Arens et al., in preparation], we investigated what motives underlie the emotional regulation of patients with recurrent or chronic depression. We examined to what extent the patients, in comparison to a non-depressed control group, indicated that in the regulation of their emotions, they were more governed by hedonic motives (that the emotion should make them feel good) versus more instrumental motives, such as self-verification (the emotion should affirm their own identity). This showed that depressive participants attributed a significantly stronger instrumental benefit to the feeling of 'sadness' (i.e., sadness is used to achieve various goals) than did the control group. In particular, the participants in the depressive group more often said that sadness could help to strengthen their sense of identity, to confirm their own world view, and to avoid stressful social contacts. In addition, depressive participants were more likely to feel sad – in conformity with the above-mentioned findings of Millgram et al. [2015]. Figure 4 represents the hypothetical relationship among various instrumental motives of emotion regulation, dysfunctional cognitive schemata, and depressive behaviors.

What are the implications for the treatment of chronic depression? The findings presented here suggest that cognitive-behavioral treatment of depression is not adequate to deal with dysfunctional cognitive patterns only on the *competence* level, by conveying new, more adaptive techniques for modification of one's own thoughts. It seems just as relevant to address cognitive mechanisms in depression on a *motivational* level too, by working with patients to systematically develop emotional goals (How do I want to feel?) and instrumental motives (How could feelings of sadness be helpful to me, what function do they have for me?) of their emotion regulation. Thus, scrutiny of patients' concepts of the self and of others, also with regard to depressive emotions and cognitions, could be relevant in therapeutic work. To what extent has the depression already become part of the person's identity/lifestyle? Do hopeless, pessimistic thoughts also serve to verify one's view of oneself and the world? To what extent does the negative mood help to avoid social contacts in order to protect oneself or others? For example, a systematic integration of positive affect and healthy elements into the self-concept of depressive patients could help to invalidate a self-verifying functionality of depressive symptoms. Rief and Glombiewski [2016] have also pointed out, in their approach to expectation-focused psychological interventions (EFPI), the role of depression-typical expectations about the self-concept (I will not be able to have pleasure in anything) and the concept of others (I will cause others misfortune), as well as the frequent resistance to change. The authors propose to systematically record such expectations during treatment, as well as to conduct interventions aimed at a maximum loss of expectation (e.g., behavioral experiments).

Mettā meditation is one formal method of encouraging positive emotions as well as strengthening the motivation to develop a positive attitude toward oneself and other people. As described above, the focus here is on the wish for oneself and others to be well and happy. It is not yet clear which specific effects of Mettā play a role, and this was discussed in a scientific controversy between the working groups around Richard J. Davidson [Dahl et al., 2015, 2016] and Tania Singer [Engen and Singer, 2016]. The Davidson group proceeds from the standpoint that cognitive flexibility on the part of the person practicing this meditation is of central importance (e.g., to develop a benevolent attitude toward 'difficult' people, those associated with negative emotions). Accordingly, change of perspective, re-evaluation, and changed self-perception are essential mechanisms of Mettā. Singer et al., on the other hand, see the strengthening of positive affect and pro-social motivation as the principal influential factors. Even if the relevance of these mechanisms is still unclear, it is reasonable to assume that both the above-mentioned cognitive mechanisms as well as the increase in positive affect play a role in Mettā meditation.

Conclusion and Outlook

A number of new methods for the treatment of recurrent depression have been developed in recent years, as well as new therapeutic approaches to chronic depression. Current research results show that modified cognitive methods such as C-CT and MBCT as well as interpersonal approaches significantly reduce the risk of relapse in recurrent depression [e.g., Clarke et al., 2015], particularly in high-risk patients with a history of 3 or more depressive episodes [e.g., Fava et al., 2004; Jarrett et al., 2013]. Although the efficacy of treatment methods for chronic depression has been comparatively little studied, still interpersonal approaches, especially CBASP, have proven effective [e.g., Negt et al., 2016]. Overall, however, the relapse and chronicity rates of depression continue to be high.

Teasdale's [1988] 'differential activation' model explained the emergence of depressive relapses by a cascade effect of negative mood and dysfunctional cognitive processes, assumed to be similar to the cognitive processes that could lead to a recurrence, and also to the maintenance of depressive symptoms in a self-perpetuating vicious cycle. The focus of this article is on changes in such intrapsychic mechanisms. A key starting point for interventions in both recurrent and chronic depression is the method of decentering for conscious perception and distancing of intrapsychic processes – a process that is explicitly practiced in the form of meditation techniques in mindfulness-based interventions, but is implicitly or explicitly the basis for changes in experience in any kind of psychotherapeutic intervention (including exposure, behavioral experiments, and behavioral activation). The ability to decenter can be fostered, for example, through exercises in MBCT or ACT, and specifically focused journaling can help to achieve this ability in everyday life.

In addition to the distancing of intrapsychic processes, this article focuses on motivational aspects, since functionalities of depressive symptoms play an important role in recurrent and chronic depression. Furthermore, additional to conveying skills such as effective emotion regulation strategies, the inquiry into emotional goals (Which feelings should be regulated in which direction?) can also be central in therapy. If there is an active therapeutic change of emotional goals, then the processing of expectations that are typical of depression, as well as the systematic encouragement and integration of positive affect into the self-image, e.g., via Mettā meditation, could be relevant. The change of unfavorable strategies of emotion regulation, such as the avoidance and suppression of negative [Ehring et al., 2010] *and* positive affect [Joormann and Quinn, 2014] is a key prerequisite for therapeutic change. Empirical findings testify to this, showing that improvement of an accepting attitude toward negative emotions, not only in ACT [Hayes et al., 1998] or MBCT [Farb et al., 2012], but also in traditional CBT [Radkovsky et al., 2014], is a predictor of therapeutic success. As described above, dysfunctional motives may also contribute to a preference for negative emotions and the avoidance of positive emotions, and may reduce the motivation for positive, reinforcing activities. Thus, these cognitive and emotional barriers should be considered in therapy as a matter of principle, also, for example, in overcoming withdrawal and avoidance through behavior-activating interventions. In our view, the integration of new approaches to changing cognitive and motivational processes offers a promising perspective.

Schema therapy is a very promising approach, which could be an effective supplement to cognitive therapy for chronic depression, with respect to change in interpersonal patterns. Two studies by the working group of Arnoud Arntz [Malogiannis et al., 2014; Renner et al., 2016], with extensive individual case series of chronically depressed patients, show that schema therapy leads to a very clear, long-lasting reduction of depressive symptoms. However, the large number of sessions suggests strong resistance to change in cases of chronic depression and the need to develop a more effective, integrative overall concept, beyond concentrating on individual intervention approaches of limited effect.

Disclosure Statement

The authors hereby declare that they have no conflicts of interest with regard to the present manuscript.

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