Common Factors in the Treatment of Chronic Depression – Comparison of 2 Psychotherapy Methods

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Keywords
Common factors · Bern Post Session Report (BPSR) · Cognitive Behavioral Analysis System of Psychotherapy (CBASP) · Chronic depression · Interpersonal Psychotherapy (IPT) · Process research

Summary
Background: There is a lack of research about the extent to which common factors influence the effectiveness of psychotherapies in the treatment of chronic depression: Which common factors differentiate between successful and less-successful psychotherapies in chronically depressed patients? Patients and Methods: Using the Bern Post Session Report (BPSR) for patients and therapists, the common factors in the treatment of 29 chronically depressed patients have been evaluated during the 16-week treatment with either the Cognitive Behavioral Analysis System of Psychotherapy (CBASP) or with Interpersonal Psychotherapy (IPT). The primary efficacy outcome measure was the score on the 24-item Hamilton Rating Scale for Depression (HRSD-24). Results: Significant differences were found on the patient-rated subscales ‘clarification’ (p = 0.02) and ‘mastery’ (p = 0.01) when comparing successful with less-successful (response defined as a 50% reduction in HRSD-24 score) therapies. However, analysis of variance showed no significant difference in common factors between CBASP and IPT therapies. Discussion: Independent of the therapeutic approach, the impact of the common efficacy factors clarification and mastery for successful treatment of chronically depressed patients has been confirmed.

Schlüsselwörter
Allgemeine Wirkfaktoren · Berner Patienten- und Therapeutenstundenbogen (TSTB/PSTB) · Cognitive Behavioral Analysis System of Psychotherapy (CBASP) · Chronische Depression · Interpersonelle Psychotherapie (IPT) · Prozessforschung

Zusammenfassung
Background

Psychotherapy involves specific components – well-defined, often disorder-specific interventions (exposure, Socratic dialogue, Interpersonal Discrimination Exercise, etc.) – as well as ‘common factors’ [Grawe, 1995], such as the therapeutic alliance. Meta-analytic investigations of outcome studies [Wampold et al., 1997] conclude that common efficacy factors account for the greatest share of psychotherapy’s effectiveness. Grawe and colleagues [Grawe, 1997, 2004], proceeding from a research-based meta-theory [Orlinsky, 2009], defined 5 common factors (see below), which have been confirmed by numerous studies [Gassmann and Grawe, 2006; Grawe, 2000; Orlinsky et al., 1994; Smith et al., 1999].

For more than three decades, most quantitative reviews have confirmed that different psychotherapeutic methods for depression differ scarcely at all in their effects [e.g., Cuijpers et al., 2012]. If differences were found, these were mostly small and unstable [Luborsky, 1995; Luborsky et al., 1975; Shadish and Sweeney, 1991; Stiles et al., 1986]. In the study on which this article is based [Schramm et al., 2011], however, the Cognitive Behavioral Analysis System of Psychotherapy (CBASP) proved to be significantly the more effective of the 2 tested treatments that were used with 29 early-onset chronically depressed patients (response rates: CBASP = 64.3%, Interpersonal Psychotherapy (IPT) = 26.7%). This could be because in about 80% of the patients (table 1), there was a diagnosis of an early interpersonal trauma in childhood (emotional or physical neglect or abuse). Since Nemeroff and colleagues [2003] showed, for this specific group of patients, greater efficacy of CBASP compared to antidepressant medication, it could be argued that there is a specific mechanism underlying CBASP that influences the processing of trauma. Indeed, particular techniques used in CBASP, such as Interpersonal Discrimination Exercises [Schramm et al., 2006], attempt to heal an earlier trauma, whereby the therapist is systematically contrasted with an abusive principal caregiver.

Alternatively or in addition to a specific mechanism, successful treatments could be differentiated from less successful ones by the impact of various of Grawe’s common factors [Cuijpers, 1998; Cuijpers et al., 2012].

1) ‘Resource activation’ (highlighting and activating the patient’s existing potentials), as well as 2) ‘problem actuation’ (making it possible for the patient’s problems to be directly experienced in therapy) [Smith et al., 1999] are taken together as a major factor in treatment outcome [Flückiger et al., 2009; Stangier et al., 2010]. With CBASP, resource activation is most clearly brought to bear in the ‘shaping’ of behavior, a process in which the use of existing resources is gradually increased in role-playing. This process simultaneously promotes problem actuation. In IPT, the patient’s resources are used, for example in the therapist’s approach as a ‘patient advocate’. Problem actuation occurs in IPT in the context of the emotional work of making one’s current feelings conscious and expressing them. Video analyses of IPT treatments have shown that patients most clearly benefited from the interaction between the factors of problem actuation and resource activation [Kech, 2008].

3) ‘Therapeutic alliance’: In CBASP [Klein et al., 2003] as well as IPT [Krupnick et al., 1994], a cooperative therapeutic

**Tab. 1. Sample characteristics at baseline measurement: responders versus non-responders**

<table>
<thead>
<tr>
<th>Sample characteristics</th>
<th>Intent-to-treat sample: N = 29</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Responders (n = 14)</td>
</tr>
<tr>
<td>Average age, years (SD)</td>
<td>40.0 (8.5)</td>
</tr>
<tr>
<td>Female, n (%)</td>
<td>9 (64.3)</td>
</tr>
<tr>
<td>Marital status, n (%)</td>
<td>10 (71.4)</td>
</tr>
<tr>
<td>Average schooling, years (SD)</td>
<td>27</td>
</tr>
<tr>
<td>Employed, n (%)</td>
<td>10 (71.4)</td>
</tr>
<tr>
<td>Average duration of depression, years (SD)</td>
<td>20.7 (14.0)</td>
</tr>
<tr>
<td>Comorbidity on Axis I, n (%)</td>
<td>4 (28.6)</td>
</tr>
<tr>
<td>Comorbidity on Axis II, n (%)</td>
<td>12 (85.7)</td>
</tr>
<tr>
<td>Prior treatment*, n (%)</td>
<td>10 (71.4)</td>
</tr>
<tr>
<td>Therapy resistance, n (%)</td>
<td>4 (28.6)</td>
</tr>
<tr>
<td>Medications</td>
<td>4 (28.6)</td>
</tr>
<tr>
<td>Early trauma*, n (%)</td>
<td>11 (78.6)</td>
</tr>
<tr>
<td>Form of therapy, n (%)</td>
<td>CBASP</td>
</tr>
<tr>
<td>IPT</td>
<td>4 (28.6)</td>
</tr>
</tbody>
</table>

*Pharmaco- and psychotherapy.

*Up from mean values in the CTQ.
alliance was associated with better treatment outcome. Conversely, less successful IPT therapies were characterized by significantly more pronounced aggressive and defensive patient behavior [Kech, 2008]. Concerning the quality of the relationship between client and therapist, generally speaking, a constant, moderate effect on the treatment outcome has been confirmed [e.g., Martin et al., 2000].

4) ‘Mastery’ [Grawe, 1996] involves learning and applying strategies to better cope with difficulties and disorders. Klein and colleagues [2011] found out that social problem solving strategies were learned more frequently in CBASP than in nonspecific supportive psychotherapy, and that this was associated with greater symptom reduction. Nevertheless, social problem solving seemed not to be the specific mechanism in CBASP that differentiates this approach from others [Klein et al., 2011]. In IPT, successful courses of therapy, compared to the less successful, are characterized by more intense work on problem solving during the second half of treatment [Kech, 2008], with an intensive clarification phase coming first [Schramm et al., 2004].

5) ‘Motivational clarification’ [Grawe, 1995] includes recognition of the determinants, origins, backgrounds, and perpetuating factors that underlie experience and behavior. IPT responders experienced significantly greater motivational clarification compared with non-responders in the first half of therapy [Schramm et al., 2004].

It has not yet been studied to what extent the impact of these common factors influences treatment success, independent of the treatment method used. Process research results for IPT [Casper et al., 2005; Crowe and Luty, 2005; Cutler et al., 2004; Coombs et al., 2002] and for CBASP [Manber et al., 2003; Arnow and Constantino, 2003; DiSalvo and McCullough, 2002] have often referred to different aspects of the therapeutic process, and are therefore difficult to compare. The work presented here attempts firstly to corroborate earlier findings with a uniform, metrologically validated research tool, and secondly to render comparable to one another the efficacy factor profiles in treatment of chronic depression, independent of treatment approach (CBASP vs. IPT). In doing so, the investigation of the efficacy factors considers both the patients’ and therapists’ perspective.

Methods

Methodology, study design and treatment conditions are presented in detail by Schramm et al. [2011] and are summarized here briefly. 30 outpatients with chronic depression (chronic major depressive episode (MDE), dysthymia, double depression or recurrent MDE with incomplete remission between episodes) with early onset (before age 21) were randomized to 22 sessions of either CBASP or IPT. The diagnosis was made according to the Structured Clinical Interview for DSM-IV (SCID) [Wittchen et al., 1997]. The patients were also stratified by early trauma (at least moderate to strong on the Childhood Trauma Questionnaire, CTQ). The patients were between 18 and 58 years old, were not taking medications, and at the time of the screening (or after an average 2-week medication washout period) scored at least 16 on the 24-item Hamilton Rating Scale for Depression (HRSD-24) [Hamilton, 1967; Miller et al., 1985]. Exclusion criteria were acute danger of suicide, psychotic symptoms or history of schizophrenia or bipolar disorder, current eating disorder, obsessive-compulsive disorder, dementia, antisocial, schizotypal or borderline personality disorder, a primary diagnosis of panic disorder, generalized anxiety disorder, social phobia or post-traumatic stress disorder or a disorder involving substance abuse or dependence. Other exclusion criteria were organic diseases and organically based mental disorders, a highly unstable medical condition, indication for drug therapy, response to a current medication, prior lithium prophylaxis, simultaneous other psychotherapy or medication or lack of response to previous treatment with CBASP and/or IPT.

The treatments were carried out at the Freiburg University Medical Center, Department of Psychiatry and Psychotherapy. The study was approved by the Ethics Committee of Freiburg University and the participants gave their written informed consent.

Treatment Conditions
The therapeutic procedures are described in manuals for both CBASP [McCullough, 2000, German version: Schramm et al., 2006] and IPT [Schramm, 2010]. CBASP was specifically designed for the treatment of early-onset chronic depression and integrates elements of CBT, cognitive, interpersonal, and psychodynamic approaches in a highly structured way. The main objective in CBASP is to learn to recognize the interpersonal consequences of one’s own behavior. Social skills for problem solving are also supposed to be developed.

Unlike the CBASP, the IPT was specifically developed for the treatment of acute depressive episodes. In this approach, as theoretical basis of the disease, the vulnerability-stress model is assumed. The IPT approach is much less structured and is used for dealing with the person’s current life issues as related to the depressive episode (e.g., partnership conflict or major life changes).

Therapy under both treatment conditions lasted for 16 weeks and included a total of 22 individual sessions (twice a week in the first 6 weeks, then once a week) of 50 min duration. If after 8 weeks of treatment there was no improvement in the depressive symptoms (at least 20% reduction from the HRSD starting value), the patients received an additional session for 2 weeks. A follow-up was conducted 1 year after the end of treatment.

Both forms of psychotherapy were performed by a total of 9 female psychological and medical psychotherapists who had either completed or were at an advanced stage of a 3-year program in psychotherapy. All the psychotherapists received at least 2 days of training in IPT or in CBASP. Each psychotherapist used only one of the methods and those using each approach were regularly overseen by 2 different supervisors. The therapists for the study treated 1–12 patients. All psychotherapy sessions were videotaped and were viewed regularly by the supervisor to assess adherence to the manual. There were weekly group supervisory meetings.

Measuring Instruments
The HRSD-24 was the efficacy outcome measure. A satisfactory response to treatment was defined, following Frank et al. [1991], as at least 50% improvement compared to the HRSD starting value and a score of 15 or less. After each week of therapy, the Bern Post Session Report (BPSR) for patients and therapists (Regli and Grawe, personal communication) was administered. The BPSRs, according to Flückiger and colleagues [2010], are suitable for representation of individual courses of therapy, and also for statistical analysis. The post session questionnaires have previously been used to represent processes of change during therapy and as outcome predictors [Flückiger and Grosse Holtforth, 2008; Stangier et al., 2010; Tschacher et al., 2007; Znoj et al., 2010]. These questionnaires were also used in various studies to work out indicators for the success of a session, and were compared with process research via video analysis [Tsichtsaz-Stucki and Lutz, 2009; Flückiger et al., 2009; Flückiger and Znoj,
2009]. These studies are cited by Flückiger and colleagues [2010] as evidence of construct validity.

The present study included analysis of the following subscales: 1) problem activation, 2) mastery, 3) resource activation, 4) motivational clarification, and 5) therapeutic alliance. These should, according to Flückiger and colleagues [2010], correspond to the common efficacy factors identified by Grawe [2000]. Flückiger and colleagues [2010] reported high reliability scores (therapist questionnaire: \( r = 0.71–0.77 \); patient questionnaire: \( r = 0.60–0.76 \)) and high internal consistency (therapist questionnaire: Cronbach’s alpha = 0.74–0.87; patient questionnaire: Cronbach’s alpha = 0.74–0.88). Table 2 shows an example of each of the factors evaluated.

Statistical Methods
Demographic and clinical data at baseline were analyzed for comparability between CBASP and IPT. \( \chi^2 \) tests were used for nominally scaled variables, and t-tests for interval scaled variables.

To evaluate the BPSRs (for sample items, see table 2), a 2-factorial, mixed dependent ANOVA with repeated measures was performed on each subscale (the efficacy factors) at all 16 survey times (15 repeated measurements) using SPSS (version 15.0). For ‘missings’, the ‘last-observation-carried-forward’ method was selected. Both the treatment outcome (responders vs. non-responders) and, in a further analysis, the treatment condition (CBASP vs. IPT) were examined as independent variables. An alpha level of 5% was defined to determine significance.

Results
Thirty patients were randomized. 1 patient was excluded from the study after randomization but before treatment, because of a borderline personality disorder. Of the remaining 29 patients, 26 completed therapy. All patients were included in the analysis who had attended at least 1 appointment.

Sociodemographic and disorder-related characteristics of the sample are listed in table 1.

Factor ‘Success Criteria’: Responders versus Non-Responders

The results of the ANOVA over 16 sessions are shown in table 3. The group, time, and interaction effects are shown, as well as the means and standard deviations of the 5 efficacy factors studied across all 16 sessions, divided into therapist and patient assessments. While the therapist assessment revealed only significant time effects (solving, resource activation, therapeutic alliance), the patient assessment showed a significant group difference for the factors of motivational clarification and mastery (fig. 1, fig. 2). Figure 3 shows the mean differences between responders and non-responders for the factors studied in the patient assessment.

Factor ‘Form of Therapy’: CBASP versus IPT

The results of the ANOVA over 16 sessions are presented in table 3. The group, time, and interaction effects are shown, as
The aim of this study was to compare the efficacy factors of successful and less successful psychotherapies in the treatment of early-onset chronic depression. The patient assessments showed significant differences in the dimension of common factors, regardless of which specific form of therapy (CBASP or IPT) was used. This result confirms the recently presented view of common (non-specific) factors in the psychosocial treatment of patients with depression [2012]. Independently of the specific therapeutic approach, patients said that successful therapies for chronically depressed patients are characterized by stronger input for motivational clarity and mastery. The progression of these factors during the 16 weeks of therapy also shows that the difference in extent of input exists right from the first session of therapy, which suggests that it may be a predictor function for successful treatment. A temporal development of these factors, as shown by Schramm and colleagues [2004], could not be confirmed. The direct comparison between the 2 forms of therapy yielded no significant differences in the extent of common factors. However, there were significant differences in the efficacy of the 2 therapies (response with CBASP = 64.5% vs. IPT = 26.7% [Schramm et al., 2011]. It could therefore be assessed well as the means and standard deviations of the 5 efficacy factors studied across all 16 sessions, divided into therapist and patient assessments. The factors of mastery, resource activation, and therapeutic alliance were found to have significant time effects. The factor of motivational clarity, while group and interaction effects did not reach a significant level.

### Discussion

The direct comparison between the 2 forms of therapy yielded no significant differences in the extent of common factors. However, there were significant differences in the efficacy of the 2 therapies (response with CBASP = 64.5% vs. IPT = 26.7% [Schramm et al., 2011]. It could therefore be assessed well as the means and standard deviations of the 5 efficacy factors studied across all 16 sessions, divided into therapist and patient assessments. The factors of mastery, resource activation, and therapeutic alliance were found to have significant time effects. The factor of motivational clarity, while group and interaction effects did not reach a significant level.

### Table 3: Analyses of variance with repeated measures of the subscales of the BPSR over 16 sessions: Means, standard deviations, group, time, and interaction effects. Group = responders versus non-responders, therapist and patient assessment

<table>
<thead>
<tr>
<th>Therapist assessment</th>
<th>Patient assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Responders</td>
</tr>
<tr>
<td></td>
<td>Average (SD)</td>
</tr>
<tr>
<td>Actualization</td>
<td>1.54 (0.22)</td>
</tr>
<tr>
<td>Mastery</td>
<td>2.19 (0.22)</td>
</tr>
<tr>
<td>Motivational</td>
<td>2.05 (0.22)</td>
</tr>
<tr>
<td>activation</td>
<td>2.19 (0.18)</td>
</tr>
<tr>
<td>Therapeutic</td>
<td>1.51 (0.17)</td>
</tr>
<tr>
<td>alliance</td>
<td>2.02 (0.19)</td>
</tr>
</tbody>
</table>

*aSignificant at a level of 0.05 (2-sided)
sumed that these differences are not due primarily to the common factors, although meta-analyses [Wampold et al., 1997] proceed from the assumption that these factors have a decisive influence on clinical outcome. This raises the question of whether successful treatment of chronically depressed patients may be due more to specific strategies of CBASP. Supporting this conjecture is the fact that clearly more CBASP than IPT patients reported, after the completion of therapy, that they could now better recognize the consequences of their own behavior (results of a specifically developed change questionnaire, not reported here); this corresponds to the specific work in CBASP on the concept of ‘perceived functionality’, with the techniques of personal involvement and situational analysis. On the other hand, patients in CBASP therapy value the dimension of the common factors mastery and motivational clarification more than do the IPT patients (table 4). Thus it can be assumed that this result could achieve significance with a larger sample size. Concerning mastery, that would link to the results of Klein and colleagues [2011], who likewise pointed to the importance of learning social problem solving strategies for the treatment of chronically depressed patients. It remains an open question why the differences in the patient assessment were not found in the therapist assessment. Are patients better able to differentiate relevant treatment components than therapists? It is not to be excluded that the results are an artifact because the therapists interpreted the items differently than the patients did. The difference in perspectives of patients and therapists is a common phenomenon in psychotherapeutic research [Fenton et al., 2001; Hill and Lambert, 2004], and the patient’s point of view is likely to be less affected by theoretical considerations and treatment manuals for the different therapies, and thus makes possible a ‘less filtered’ image of the therapeutic process. Another explanation could be that it is less a question of ‘whether’, but rather of ‘how’ (in combination with other common factors) the input of common factors comes into play. The BPSRs, because of their small number of items, do not provide very instructive data, but only allow a rough overview of the progressions of common factors. They are therefore an economical instrument with which to describe different process variables in exploratory studies such as this one; however, they must be considered in the interpretation of the data on item specificity and corresponding limitation of validity and reliability [Flückiger et al., 2010]. In further studies, more specific instruments and video analyses should be used [Flückiger and Grosse Holtforth, 2008] to be able to make more differentiated assertions.

Some methodological limitations of this pilot study should be considered. First is the small sample size, which produces low statistical power and may mean that small effects would not reach a significant level. Here we should mention the forecast by Martin and colleagues [2000] of a moderate influence of the therapeutic alliance. Also the outcome criteria were only detected at the end of the course of treatment.

**Table 4. Analyses of variance with repeated measures of the subscales of the BPSR.** Means, standard deviations, group, time, and interaction effects. Group = CBASP versus IPT, therapist and patient assessment.

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Average (SD)</th>
<th>CBASP</th>
<th>IPT</th>
<th>Group</th>
<th>Time</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actualization</td>
<td>1.54 (0.21)</td>
<td>1.74 (0.20)</td>
<td>0.48</td>
<td>1</td>
<td>0.40</td>
<td>0.05</td>
</tr>
<tr>
<td>Mastery</td>
<td>2.04 (0.22)</td>
<td>2.20 (0.21)</td>
<td>0.25</td>
<td>1</td>
<td>0.61</td>
<td>0.02</td>
</tr>
<tr>
<td>Therapeutic alliance</td>
<td>1.27 (0.17)</td>
<td>1.51 (0.15)</td>
<td>0.10</td>
<td>1</td>
<td>0.30</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Significant at a level of 0.05 (2-sided).
Follow-up studies should additionally apply a Bonferroni correction with multiple tests, and mediator analysis should be performed. However, this requires the calculation of an optimal sample size, which also could not be done in this pilot study design.

Through an analysis of common factors over the entire course of treatment by 2 disorder-specific therapies for depression, this exploratory study contributes to the understanding of which mechanisms of change can lead to positive change in patients with chronic depression. While no differences in the profile of the common factors could be established between the forms of intervention, the early-onset chronically depressed patients benefited from ongoing work on motivational clarification and the use of coping strategies, independent of the psychotherapeutic process being used. To identify the underlying mechanisms and thus further increase the effectiveness of psychotherapeutic treatments, additional process studies must be conducted.

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