

# The impact of integrating emotion focused components into psychological therapy: A randomized controlled trial

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## Abstract

**Objectives:** This paper presents a randomized controlled trial on assimilative integration, which is aimed at integrating elements from other orientations within one approach to enrich its conceptual and practical repertoire. Elements from Emotion-Focused Therapy (EFT) were integrated into a form of cognitive behavior therapy: Psychological Therapy (PT). In one treatment condition, EFT was added to PT (+EFT) with the intent to enhance therapists' working with emotions. In the other condition, concepts and interventions based on the socialpsychological self-regulation approach were added to PT (+SR). Our assumption was that the +EFT would lead to greater and deeper change, particularly in the follow-up assessments.

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**Funding information**

Swiss National Science Foundation

**Method:** Patients ( $n = 104$ ) with anxiety, depression, or adjustment disorders were randomized to the two conditions and treated by 38 therapists who self-selected between the conditions. Primary outcome was symptom severity at 12-month follow-up; secondary outcomes included several measures such as interpersonal problems and quality of life. Variables were assessed at baseline, after 8 and 16 sessions, at posttreatment, and at 6- and 12-month follow-up.

**Results:** Contrary to our hypothesis, no significant between-group effects were found.

**Conclusion:** The findings first suggest the difficulty of topping an already very effective approach to psychotherapy. Alternative interpretations were that the EFT training, while corresponding to regular practice in AI, was not sufficient to make a difference in outcome, or that while profiting from the enhancement of abilities for working with emotions, this was outbalanced by negative effects of difficulties related to the implementation of the new elements.

**KEYWORDS**

assimilative integration, common factors, Emotion-Focused Therapy, Plan Analysis, self-regulation

## 1 | INTRODUCTION

### 1.1 | Psychotherapy integration and psychological therapy (PT)

One of the main themes of psychotherapy integration involves the assimilation within one theoretical orientation of constructs and interventions that have been associated with traditions of psychotherapy (Messer, 2001). Typically, assimilative integration (AI) is triggered by experiencing limitations and weaknesses in the original orientation when treating patients (Boswell et al., 2019). As such, AI stands in contrast to what Grawe (2002) has denounced as the tendency of classical schools of therapy to defend their original theories and procedures while ignoring competing or contradictory concepts and evidence. Rather, Grawe has advocated for more openness and efforts to deal with such concepts, interventions, and evidence by integrating them when recognized as relevant. As an embodiment of AI, Grawe has developed an approach designated as PT, which stands for the use of procedures based on psychological theories, concepts, and empirical findings. Of particular relevance in the context of this study are two core principles of PT. First, psychotherapy should be determined by individual case conceptualizations, in particular Plan Analysis (Caspar, 2022). Plan Analysis which emphasizes means-ends relationships in human interpersonal and intrapsychic functioning covers an understanding of patient problems as well as requirements for the therapeutic

relationship (Caspar, 2022). Second, the therapeutic relationship should always codetermine how interventions are considered and implemented.

## 1.2 | Clinically valid AI

A goal of the present study was to examine AI in a way that renders findings relevant for practice. It was therefore aimed to mimic, in an externally valid way, how AI happens in the development of therapists. To overcome the limitations of their old approach, therapists typically read a book or a few articles, participate in one or a few workshops, and, if possible, attend some supervision by a representative of the new approach. Usually, they do not get, nor do they want full training in the new approach. A study on the effects of AI would thus have to decide between either maximizing the effects by providing extensive training in an attempt to increase the probability of achieving a significant gain or following a pragmatic approach of maximizing external validity, with the related risk that comparative effects would remain below the significance threshold. For this study, the externally more valid option has been chosen.

## 1.3 | Emotion related therapeutic work

As stated before, the attempt of integrating something new is usually triggered by limitations of the old treatment approach. A limitation frequently observed in our clinic was that therapists trained in PT seemed to not fully live up to its claim of optimally adapting to the individual patient. Specifically, in situations suggesting more work with emotions therapists hesitated, maintaining a cognitive or behavioral focus. This is inconsistent with the mechanism of processual actuation central to PT (Grawe, 2002). Processual actuation means to activate a maladaptive schema, with the assumption that schemas need to be emotionally activated (as opposed to merely being talked about) to be changed. While cognitive and behavioral work involves emotions and their activation, a direct and more targeted focus on emotions, such as chair work (L. Greenberg, 2010) seemed to provoke more insecurity on the side of therapists. Although they learn some of these concepts and techniques in their basic training, these seem to be more difficult to learn up to the level of confidence required for treatment selection decisions being truly determined by individual patient characteristics rather than by therapist preferences (Dettwiler, 2016). Accordingly, additional conceptual technical training in emotion-focused work seemed indicated in our clinic, via a further integration of elements of Emotion-Focused Therapy (EFT; L. Greenberg, 2010). "Elements of" reminds of the fact that not a full EFT training is considered but a concentration on the elements that are most promising and trainable within limited time. The study presented here serves the primary purpose of finding out whether this realistic kind of AI has the intended effect of improving outcomes in routine outpatient practice.

## 1.4 | Design of the study

An integration of additional elements in the professional development of therapists raises the causal question whether such elements have an impact on treatment outcome. Therefore, an randomized controlled study is the method of choice (Babl et al., 2016; Caspar et al., 2015). But: What is the appropriate other condition to compare the EFT-integration condition with? A comparison with treatment-as-usual (in this case, PT) would leave the question open whether differences found in the comparison are unspecific effects that any kind of additional training might have, or rather effects specific for an EFT-add on. An appropriate comparison condition should fulfill three requirements: First, it should introduce sufficiently new elements that come with the appeal of learning something that potentially adds to the therapists' competence and is likely to be helpful for patients. Second, the

mastery of the new elements should require a similar amount of training as the EFT add-on, and third, the resulting therapy should still be close to the core of PI, so that less conceptual integration would be required than in the EFT add-on. A practical elaboration of the social-psychological self-regulation approach (Carver & Scheier, 1998) for therapeutic purposes satisfies these criteria. Grawe (2002) referred to self-regulation in the theoretical underpinning of PT, but very rarely therapists use its potential in practice (Gempeler, 2016). As such, additional training in self-regulation concepts as well as in interventions addressing self-regulation might lead therapists to actually exploit its potential.

## 1.5 | Hypothesis

While we are interested in changes during the treatment period, the focus of our hypothesis is on the late effects of an integration of EFT elements. It is expected that an integration of EFT interventions will lead to better long-term outcomes in the primary as well as secondary outcome measures. Conceptually, this hypothesis rests on the assumption that changing implicit (nonconscious) maladaptive emotions will be associated with more sustainable symptom change than the correction of explicit processing by interventions such as cognitive restructuring.

This hypothesis is also based on a number of empirical findings. Whereas in their trial comparing Exposure based cognitive therapy (EBCT) (a cognitive therapy with integrated techniques from EFT) with cognitive behavior therapy (CBT) (Grosse Holtforth et al., 2019), both EBCT and CBT yielded similarly good outcomes, EBCT fostered greater during-treatment increases in emotional processing than CBT, which was associated with better long-term depression outcome (Gómez Penedo, Coyne, et al., 2020). Also, there is initial evidence that the change of implicit processing measured by implicit associations may reduce the likelihood of relapse in depression as well as in anxiety (Gómez Penedo, Krieger, et al., 2020; van Tuijl et al., 2020). Furthermore, in their study of client processes in EFT for complex trauma, Paivio et al., (2001) found that how engaged clients were the first time they did an empty chair task (i.e., imagining a conversation with one's perpetrator) did not predict final treatment outcome but successful outcome at 6 months posttreatment. Following-up clients over the longer term has also shown that adding enactment tasks (which means primarily chair work) that characterize EFT (beyond an empathic relational treatment), led to longer maintenance of gains up to 18-months posttreatment for EFT as compared to client-centered therapy only. Indeed, according to client self-reports during the year and a half after treatment, having done enactments as part of their therapy led clients to later use more active and effective strategies for coping with their distress (Ellison et al., 2009).

## 2 | METHODS

### 2.1 | Treatments

#### 2.1.1 | PT

There are three approaches to be described. First, the approach of departure (or the treatment as usual), is PT. It remains the basis for both experimental conditions. Its principles have already been introduced above. With its emphasis on psychological concepts and empirically supported interventions, PT can be viewed as a version of cognitive behavior therapy (CBT; Grawe et al., 1990). The therapist's conceptual and technical repertoire is flexible, and patient characteristics beyond the clinical diagnosis—interpersonal characteristics in particular—should determine the procedure to a large extent. Rather than reacting directly to a characteristic as diagnosis or interpersonal style, the therapist's decisions should follow principles in line with the guiding model of (PT; Grawe, 2002) which includes therapeutic working mechanisms (mastery/coping, clarification of meaning, problem

activation, and resource activation; Grawe, 2002; Probst et al., 2018). Therapy planning is contextual in the sense of satisfying multiple constraints in parallel, including monitoring the current situation (Caspar, 2022). While it is open to using standardized CBT procedures as long as they are compatible with the requirements of an individual case, PT corresponds rather to the individualized stance of CBT that was common before a wave of dominating standardization.

A specific feature of PT is the Motive Oriented Therapeutic Relationship (MOTR; Caspar, 2022). This includes the principle of looking for acceptable motives guiding problematic behavior in the therapy relationship, and the principle of proactively satisfying these motives to make the use of problematic strategies by the patient superfluous. The efficacy of PT has been established for a predecessor designated Interactional Behavior Therapy (Grawe et al., 1990). In a later study comparing PT with standard CBT, PT showed equal outcomes as CBT, but superior effects in highly symptomatic patients (Grosse Holtforth et al., 2011).

The other two approaches are the alternative add-ons (EFT and self-regulation [SR]) to PT, which allow for the comparison of the experimental (PT + EFT) and control (PT + SR) conditions.

## 2.2 | EFT

EFT is an approach of humanistic, client-centered, and gestalt origin. EFT formulates a model of therapeutic transition from maladaptive secondary emotions to adaptive primary emotions, and includes interventions to facilitate such a transition. It is a process-oriented approach that integrates an empathic offer of relationship and process-directive interventions aiming to improve a patient's ability to deal with emotions (Greenberg, 2010). Different types of emotional experiencing/processing are distinguished, which require different interventions. Important distinctions are primary versus secondary emotions (roughly: natural/spontaneous vs. transformed/distorted) and adaptive versus maladaptive emotions (roughly: helping vs. not helping to satisfy one's needs). It is assumed that patient problems are often related to an inability to understand one's own emotions and thus an inability to derive appropriate responses in dealing with situations due to such a lack of understanding, or inability to expose oneself to threatening or painful emotions, while such exposure would be favorable for personal development. The transformation model describes how a maladaptive secondary emotion resulting from the suppression of a healthy primary emotion can be changed in several steps back to an adaptive primary emotion (Berthoud et al., 2015; Pascual-Leone & Greenberg, 2007). Most typically, this is done by chair work. EFT for individuals has been identified as an empirically supported treatment for depression, and there is additional evidence for interpersonal problems, trauma, anxiety, and avoidant personality disorder (Elliott et al., 2021).

There are many commonalities between EFT and PT, such as the weight of the therapeutic relationship, activating emotions, and seeking clarification so that many EFT concepts and interventions could be integrated without fundamental problems. However, some elements are unique to EFT such as the transformation model as a conceptual framework, the use of markers as an aid for recognizing situations suitable for or demanding particular interventions, as well as interventions such as empathic exploration and validation (going beyond therapist basic behavior), two-chair and empty chair work, focusing, and systematically establishing of a medium level of arousal (between overwhelmed and detached) that is seen as the state most suitable for change.

As an example, how both, PT and EFT influence the procedure side by side: In a concrete case the two-chair technique, as well as the process of transforming emotions, is determined by EFT concepts, and the timing follows also the process markers defined by EFT. The therapeutic relationship and the weighting of contents are determined by the Plan Analysis case formulation and the concept of Motive Oriented Therapeutic Relationship as well as the general multiple-constraint satisfaction model of construing therapeutic action (Caspar, 2022).

A "package" of several documents served the function of a manual: The EFT trainers provided handouts for their workshops, as well as a set of documents and publicly accessible video links conveying the use of the EFT elements considered most useful in the context of this study. For the integration of EFT with PT and Plan Analysis,

all necessary rules including flowcharts were provided, concretely in a 66-page stack of PowerPoint slides. The instruction has been complemented by video segments from a model therapy, accessible to the therapists at any time, and, of course, supervision. A workshop with Les Greenberg as the charismatic leading figure of EFT was—beyond the effect of conveying EFT-competence—expected to have a side effect of strengthening the therapists' allegiance with this study condition. The training days were conducted by the certified German top representatives of EFT.

### 2.2.1 | Self-regulation

Self-regulation as a theory (Baumeister & Heatherton, 1996; Carver & Scheier, 1998) focuses on a number of elements in a self-regulation loop: How do individuals compare their actual state with their goals and norms? What internal and external actions are taken when a difference between an actual and a desired state is detected? What impact does the environment have? How is the resulting state assessed? In particular, when actions repeatedly fail in reducing the difference, the goals and norms may be adapted in a so-called secondary loop, serving such adaptations rather than changing the output (behavior) in line with the original goals and norms.

An important addition to this basic approach is the dual process model of regulation (Carver & Scheier, 2002; Carver et al., 2017). It conceptualizes the regulation as accomplished by two types of process: Deliberate, conscious versus self-organized, nonconscious, and implicit. What deliberate/conscious means is expected to be clear in principle. Self-organized refers to processes taking place without the central control typical for traditional computers but parallel throughout the information processing system without such control, as conceptualized in connectionist or neural network models (Caspar & Berger, 2007; Caspar et al., 1992). If these two processes work well, they complement each other. If not, they compete, and one or the other type of process dominates and determines behavior and experiencing even when the other type of process would be more adaptive. While a dominance of deliberate regulation can also be maladaptive, more frequent and severe are instances in which self-organization takes over in a maladaptive way.

There are many ways in which the self-organization may be derailed. The comparator checking for divergence between our current state and our goals/norms may be too sensitive or too numb, check too often or too seldom, the action taken to reduce the divergence may be inappropriate for various reasons, or a repertoire may be lacking, the perception of the effects of the action may be distorted, one may adapt one's goals too quickly or too slowly, deliberate or self-organized regulation may dominate to a maladaptive extent in general, or their interplay may be deranged. It may be difficult to re-establish deliberate control when self-organized functioning is not understood, including factors leading to maladaptive self-organization (such as ego depletion, lack of sleep, or intoxication).

The self-regulation approach is a theoretical/conceptual part of PT. Concretely, the addition in the +SR condition consists of a more detailed, practice-oriented elaboration of how self-regulation can be analyzed and traced in concrete therapies. There are many hints and illustrations of how the essential parts of self-regulation may be malfunctioning, how this can be identified in the dialog with the patient, and how it can be accessed for change. Maladaptive disbalance between deliberate and self-organized processes receives particular attention. It is important to note that the practical use of self-regulation-related elements does not represent a new brand of therapy. As mentioned above, it is an attempt of developing a set of practical psychotherapeutic views, rules, and psychoeducative material based on social-psychological concepts which seem to have a high potential of exploiting this particular perspective of human functioning (Caspar, 2016). For a change, well-known broad spectrum behavior therapy interventions are used but planned and justified explicitly based on SR concepts.

As an example, for the +SR condition: The therapist may explore with the patient, whether the comparator, the unit in self-regulation circles signaling whether the current state corresponds sufficiently to the norms, values, and motives, works in an adaptive way. Does it execute its checks too frequently (such as for sociophobic patients checking interactions exhaustively for signs of criticism and rejection, or paranoid patients) or not frequently enough (such as for

workaholic patients distracting themselves from the question of whether they really live in line with their needs). The role of PT constraints in the plus SR condition corresponds to their role in the plus EFT condition.

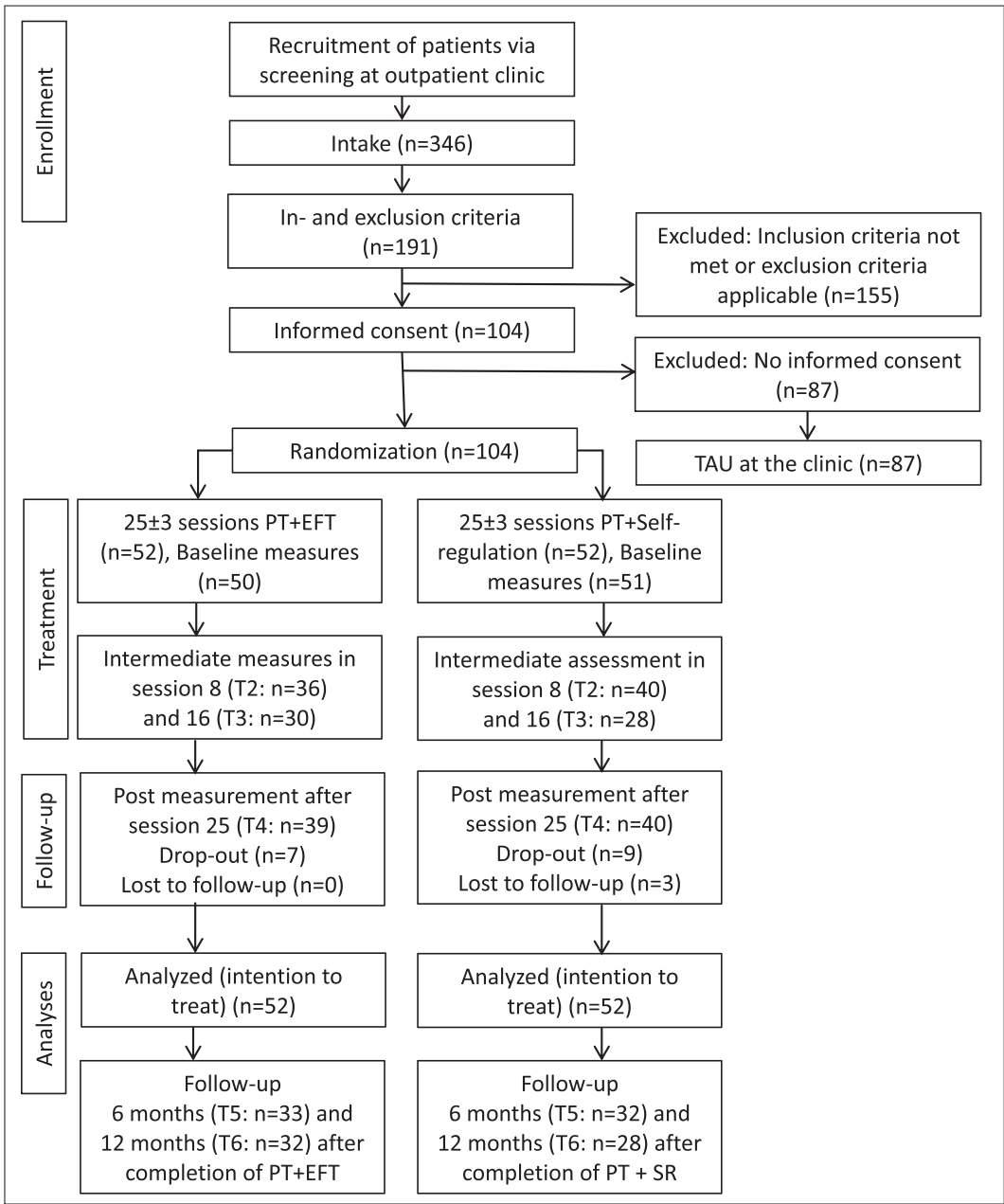
The written instruction material consists of articles about the basics of self-regulation (Carver & Scheier, 2002), self-organization (Caspar et al., 1992), and the clinical use of self-regulation (Caspar, 2016). In addition, written directives on how to focus on such phenomena in the individual case, and how to raise awareness of self-regulation with the patient have been written down on PowerPoint slides that were used in the training workshops and delivered as handouts. In this material, it is demonstrated how interventions primarily of cognitive-behavioral origin can be used to work on whatever seems to prevent more adaptive self-regulation. Psychoeducative materials such as drawings of the loops of self-regulation are made available for work with the patient. Also, in this condition of the study, instructions have been complemented by video segments from a model therapy, accessible to the therapists at any time, and, of course, supervision. A workshop with Charles Carver as the leading figure of the socialpsychological self-regulation approach served analog purposes as the workshop with Les Greenberg.

## 2.2.2 | Participants

A total of 104 adult patients were recruited between January 2016 and June 2018 at a Swiss University outpatient clinic and randomly assigned to either PT + EFT or PT + SR (Figure 1). Forty-eight of them fulfilled the diagnostic criteria for a unipolar depressive disorder (DSM-IV 296.xx), 31 for an anxiety disorder (300.xx), more specifically 10 agoraphobia with panic disorder, 8 social phobia, 5 panic disorder, 4 generalized anxiety disorder, 2 PTSD, 2 specific phobia, and finally 25 for adjustment disorder (309.xx). These diagnoses correspond to the most frequent diagnoses, summing up to about 50% of the average caseload of this clinic, thus reflecting an attempt of concentrating on the most typical and excluding more rare and special diagnoses.

Inclusion criteria were: (i) meeting Diagnostic and Statistical Manual of Mental Disorders (DSM-IVTR; APA, 2000) criteria for a unipolar depressive, anxiety, or adjustment disorder; (ii) being at least 18 years old; (iii) giving informed consent. Exclusion criteria were: (i) active substance dependence within the previous 6 months; (ii) current suicidal risk or immediate threats of self-harm; (iii) meeting criteria for an organic mental disorder; (iiii) health conditions that require medication potentially affecting the mood (e.g., steroids); (iv) receiving concurrent psychological treatments, including psychotherapy. Antidepressant medication at a stable dose for at least 1 month before study inclusion has been accepted. Comorbidities with disorders not on the exclusion list did not lead to exclusion as long as anxiety, depression, or adjustment problems were patients' primary concern. For two patients a comorbid personality disorder has been diagnosed, reflecting a conservative practice with attributing personality disorders to patients at our clinic, while most explicit comorbidities were with other anxiety and depressive disorders. The rate of patients ready to join the study turned out to be below the rate expected based on long-standing experience with a format not limiting the time/number of sessions: Some patients not joining the study hesitated to commit for 25 +/- 3 fully or partially self-paid sessions, as they expected to need fewer sessions, while others were concerned that this number of sessions would not be enough so that they would be left alone amidst a process.

A total of 38 psychologists who had completed at least the first 1.5 years of their postgraduate psychotherapy training at the Institute of Psychology, University of Bern, a certified CBT training institute, were recruited as therapists. Therapists delivered either PT + EFT or PT + SR, and they self-selected into the condition in favor of commitment and against spilling over. 19 therapists in the PT + EFT group (14 psychotherapists in training and 5 therapists with completed postgraduate training) saw between 1 and 4 cases each (mean of 3). Nineteen therapists in the PT + SR group (14 psychotherapists in training and 5 with completed postgraduate training) saw between 1 and 5 cases each (mean of 3). Therapists received special 8-day training in either EFT or SR and were supported by supervision for their respective treatment arm (individual or in small groups of up to four supervisees by local expert therapists, ongoing, plus additional supervision and discussion every 3 months with LA/IH as German EFT experts;



**FIGURE 1** Participant recruitment and study flow chart

Franz Caspar and Thomas Berger as SR experts). The amount of training and supervision was equivalent in both conditions.

### 2.2.3 | Measures

A broad set of measures that is common in psychotherapy research, complemented by some more specific instruments, was used to assess status and change (Table 1).



## 2.2.4 | Statistical analyses

First, various preliminary analyses were conducted. Descriptive statistics to characterize the patient and therapist samples were calculated. Next, the treatment conditions on all baseline patient and therapist variables as well as all outcome variables were compared using *t*-tests for continuous variables and  $\chi^2$  analyses for categorical variables.

Second, hierarchical linear modeling (HLM) was applied to examine changes in the primary and secondary outcome variables using random effects. HLM addresses the dependency of data presented in longitudinal studies, due to repeated-measures (here: assessment of outcome measurements at baseline, after 8 and 16 sessions, at treatment termination after 24 weeks, and follow-up at 6- and 12-months) nested within patients and patients nested within therapists, thereby providing more accurate estimations than ordinary least squares regression (Raudenbush & Bryk, 2002). Moreover, HLM can handle missing data and mimics an intent-to-treat (ITT) approach by including all participants in the analysis who completed outcome measures at least once. All data analyses were done using R (R Core Team, 2017) and the package *lme4* (Bates et al., 2015).

*Three-level fully unconditional models* with BSI, Beck Depression Inventory (BDI)-II, and Beck Anxiety Inventory (BAI) as primary outcome variables WHO-5, IIP-32, K-INK, and SF-12 (physical and mental subscale) as secondary outcome variables, and Hamilton Depression Scale (HAMD) as clinician-administered outcome variable were conducted. Based on these nine unconditional models, Intraclass Correlation Coefficients (ICC) were calculated to establish the amount of variance explained by therapist effects (level-3). Results indicated that three-level-HLMs are necessary, as 5% of the variance in BSI, 4% in WHO, 3% in IIP-32, 16% in the mental subscale of the SF-12, and 6% in the HAMD were explained by the therapist.

To establish whether there were significant changes in BSI, BDI-II, BAI, WHO-5, IIP-32, K-INK, SF-12, and HAMD in the overall sample of the study, *time-as-only-predictor models* were calculated. Specifically, piecewise mixed models to estimate within-patient differences (level-1), between-patient differences (level-2), and therapist effects (level-3) were conducted. The time variable was set as random for level-2 but not level-3 (as there was no improvement in model fit when setting the time variable as random for level-3 as well) for all outcome variables but the HAMD (where the time variable was fixed for both levels as it was assessed only three times as opposed to six times for all other outcome measures). The time variable was split into the treatment phase (T1 to T4), where half of the sample received PT + EFT and the other half PT + SR, and the follow-up phase (T4 to T6), where the patients did not receive treatment anymore. The time variable was defined as weeks and centered at posttreatment (T4). This implies that the intercept of the model is interpreted as the estimated outcome variables after 25 sessions, while the time slope is defined as the session-by-session rate of change for T1 (baseline) to T4 (posttreatment) and T4 (posttreatment) to T6 (12-months follow-up). At level 1, these time-as-only predictor models estimated the scores of outcome variables at moment *i* for patient *j* treated by therapist *k*, as a function of the level of the dependent variable at session 25 ( $\pi_0$ ) and its rate of change during the intervention period ( $\pi_1$ ) and the follow-up period ( $\pi_2$ ) analyzed for patient *j* treated by therapist *k*. At level 2, these coefficients dropped down to be predicted by the average of the dependent variable in session 25 ( $\beta_{00}$ ) and the average change over the course of the intervention period ( $\beta_{10}$ ) and follow-up ( $\beta_{20}$ ) among patients treated by therapist *k*. Finally, at level 3 these coefficients further dropped down to be predicted by the average of the dependent variable in session 25 ( $\gamma_{000}$ ) and the average change over the course of the intervention period ( $\gamma_{100}$ ) and follow-up ( $\gamma_{200}$ ) across all clients.

Based on these results, nine *conditional three-level models* were run with timepieces (defined in sessions) as the only level-1 predictors and centered at session 25, and with treatment condition (PT + EFT vs. PT + SR) as a level-2 predictor of the intercept, the linear slope during treatment and the linear slope during follow-up. Sensitivity analyses were conducted to determine the robustness of our results depending on the baseline variable of primary diagnosis (depressive-, anxiety-, or adjustment disorder) as there might be differential effects with regard to the two

treatment conditions PT + EFT and PT + SR. Furthermore, between-group effect sizes were calculated using *Cohen's d* by subtracting the means of the two subgroups and dividing the result of the subtraction by the pooled standard deviation with the weights for the sample sizes of both subgroups.

To avoid a problem with multiple comparisons, the effects of the primary and secondary outcome variables were combined into two composite variables by means of principal component analyses using the R package *broom* (Robinson et al., 2020). For the three primary outcome measures, a composite variable called *severity* was created that explained 82% of the variance in BSI, BDI-II, and BAI. For the five secondary outcome measures, likewise, a composite variable called *bio-psychosocial functioning* was created which explained 63% of variance in WHO-5, K-INK, SF-12 mental and physical subscale, as well as the IIP-32. HLM as outlined above was also applied to the two composite scores of *severity* and *functioning*.

### 3 | RESULTS

#### 3.1 | Preliminary analyses

The sample came close to reaching our power estimate, which is explained in detail in Babl et al. (2016), with 52 patients being randomized to PT + EFT and 52 to PT + SR. Characteristics of all patients randomized to the two treatments are presented in Table 1. They did not differ significantly between the two groups (all  $ps > 0.22$ ). Patients in PT + EFT received on average 20.5 sessions and 45 were classified as completers, whereas 7 were classified as dropouts. Patients in PT + SR received on average 19.69 sessions, 43 were classified as completers and 9 as dropouts. There were no significant differences between completers and dropouts on any measured patient characteristics at pretreatment (all  $ps > 0.48$ ). Regarding the therapist sample, both age and level of experience were highly skewed (five therapists in each group were older and more experienced than the other therapists). Therapist groups did not differ with regard to age (PT + EFT = 33.48 years, PT + SR = 32.29 years),  $t(95) = -0.98$ ,  $p = 0.33$  and experience (PT + EFT = 3.98 years, PT + SR = 3.21 years)  $t(58) = -0.75$ ,  $p = 0.46$ .

The estimated means of all outcome variables at baseline, posttreatment, and 12-months follow-up can be found in Table 2 in the Supporting Information Material.

A direct comparison between the two treatment conditions TAU + SR and TAU + EFT was conducted to assess the extent to which interventions specific to one treatment condition were realized. Four sessions (1, 8, 16, and 24) per therapy were rated for therapist adherence with a high (ICC = 0.896,  $p = 0.000$ ). Mirroring common integrative practice, therapists were not expected to primarily perform EFT or SR but implement condition-specific elements when indicated. It was found that in the +EFT condition, EFT techniques were used 24.5% of the time, while in the +SR condition, SR interventions were used 18.8% of the time. The use of interventions typical for the respective other add-on was very low, except for empathy (which is also demanded in PT) in +SR therapies.

##### 3.1.1 | Time-as-only-predictor models

On the left, Table 3 summarizes the within-group effects for all outcome measures that were estimated using piecewise linear mixed models based on the ITT sample. There was a significant effect of time (i.e., within-group effect) on the composite scores as well as all individual outcome measures over the intervention period, reflecting large improvements in symptomatology, well-being, incongruence, and mental and physical health, as well as interpersonal problems in both treatment conditions. Only interpersonal problems changed significantly over the follow-up period, continuing to improve.

**TABLE 1** Measurements and time of assessment

| Instrument                                  | Abbreviation | Aim                             | Time of assessment                 |
|---|--------------|---------------------------------|------------------------------------|
| Clinician-administered                      |              |                                 |                                    |
| Structured Clinical Interview for DSM IV    | SCID         | DSM-IV Axis I/II disorders      | Pre, post                          |
| Hamilton Depression Scale                   | HDRS         | Severity of depressive symptoms | Pre, post                          |
| Goal Attainment Scaling                     | GAS          | Individual goals                | Pre, intermediate, post            |
| Self-report ratings                         |              |                                 |                                    |
| A. Symptom severity                         |              |                                 |                                    |
| Brief Symptom Inventory                     | BSI          | Symptom impairment              | Pre, intermediate, post, follow-up |
| Beck Depression Inventory                   | BDI-II       | Severity of depressive symptoms | Pre, intermediate, post, follow-up |
| Beck Anxiety Inventory                      | BAI          | Severity of anxiety symptoms    | Pre, intermediate, post, follow-up |
| B. Well-being                               |              |                                 |                                    |
| World Health Organization 5                 | WHO-5        | Psychological well-being        | Pre, intermediate, post, follow-up |
| Short Form 12 of the Health Survey          | SF-12        | Health-related quality of life  | Pre, intermediate, post, follow-up |
| C. Coping/Emotion regulation                |              |                                 |                                    |
| Self-assessment of Emotional Competences    | SEK-27       | Dealing with negative emotions  | Pre, post                          |
| D. Interpersonal problems                   |              |                                 |                                    |
| Inventory of Interpersonal Problems         | IIP-32       | Interpersonal problems          | pre, intermediate, post, follow-up |
| E. Motives/Incongruence                     |              |                                 |                                    |
| Inventory of Approach and Avoidance Motives | FAMOS        | Motivatioal goals schemes       | Pre, post                          |
| Incongruence Questionnaire                  | INK          | lincongruence                   | Pre, intermediate, post, follow-up |

### 3.1.2 | Conditional models

On the right, Table 3 shows the between-group effects. Between-group effects were nonsignificant for both composite scores and almost all individual outcome measures, indicating that the two treatments generally did not differ with regard to their effectiveness over the intervention period as well as their long-lasting effects, that is, the changes from pre to follow-up. However, all assessment points were used to estimate the trajectories. The only significant difference between PT + EFT and PT + SR was found for changes in anxiety symptoms over the follow-up period ( $Y_{00} = -0.07$ ,  $SE = 0.03$ , 95% CI  $[-0.14, 0.01]$ ,  $t(237) = -2.13$ ,  $p = 0.03$ ). In the PT + EFT condition, patients improved by 0.07 points more per week than in the PT + SR condition.

**TABLE 2** Patient characteristics and outcome measures at baseline (ITT sample)

| Variable             | PT + SR N = 52 | PT + EFT N = 52 | p    |
|----------------------|----------------|-----------------|------|
| Age in years, M (SD) | 31.17 (11.52)  | 30.90 (9.49)    | 0.89 |
|                      | n (%)          | n (%)           |      |
| Gender               |                |                 | 0.84 |
| Male                 | 21 (40.38)     | 23 (44.23)      |      |
| Female               | 31 (59.62)     | 29 (55.77)      |      |
| Primary diagnosis    |                |                 | 0.96 |
| Depressive disorder  | 24 (46.15)     | 24 (46.15)      |      |
| Anxiety disorder     | 16 (30.77)     | 15 (28.85)      |      |
| Adjustment disorder  | 12 (23.08)     | 13 (25.00)      |      |
| Comorbidities        |                |                 | 0.45 |
| Depressive disorder  | 3 (5.77)       | 1 (1.92)        |      |
| Anxiety disorder     | 2 (3.85)       | 3 (5.77)        |      |
| Adjustment disorder  | 1 (1.92)       | 1 (1.92)        |      |
| Others               | 2 (3.85)       | 0 (0.00)        |      |
| Education            |                |                 | 0.39 |
| In school            | 1 (1.92)       | 0 (0.00)        |      |
| Primary school       | 4 (7.69)       | 7 (13.46)       |      |
| Technical school     | 10 (19.23)     | 7 (13.46)       |      |
| Secondary school     | 5 (9.61)       | 7 (13.46)       |      |
| High school diploma  | 26 (50.00)     | 25 (48.08)      |      |
| Other                | 5 (9.61)       | 1 (1.92)        |      |
| Marital status       |                |                 | 0.71 |
| Unmarried            | 40 (76.92)     | 38 (73.08)      |      |
| Married              | 7 (13.46)      | 8 (15.38)       |      |
| Divorced             | 4 (7.69)       | 2 (3.85)        |      |
| Retreatment          |                |                 | 0.49 |
| Yes                  | 7 (13.46)      | 10 (19.23)      |      |
| No                   | 40 (76.92)     | 34 (65.38)      |      |
| Missing              | 5 (9.61)       | 8 (15.38)       |      |
| Medication           |                |                 | 0.99 |
| Yes                  | 22 (52.31)     | 27 (51.92)      |      |
| No                   | 27 (51.92)     | 21 (40.38)      |      |
| Missing              | 3 (5.77)       | 4 (7.69)        |      |
|                      | M (SD)         | M (SD)          |      |

TABLE 2 (Continued)

| Variable                     | PT + SR N = 52 | PT + EFT N = 52 | p    |
|------------------------------|----------------|-----------------|------|
| Severity                     | 1.56 (1.64)    | 1.41 (1.42)     | 0.61 |
| Bio-psychosocial functioning | 1.59 (1.46)    | 1.39 (1.33)     | 0.48 |
| BSI (GSI)                    | 1.11 (0.54)    | 1.05 (0.48)     | 0.53 |
| Depressive disorder          | 1.32 (0.48)    | 1.37 (0.35)     |      |
| Anxiety disorder             | 0.94 (0.53)    | 0.79 (0.45)     |      |
| Adjustment disorder          | 0.91 (0.57)    | 0.80 (0.40)     |      |
| BDI-II                       | 21.57 (10.31)  | 20.32 (9.99)    | 0.54 |
| Depressive disorder          | 27.2 (0.48)    | 27.4 (0.35)     |      |
| Anxiety disorder             | 16.1 (0.53)    | 12.6 (0.35)     |      |
| Adjustment disorder          | 17.2 (0.57)    | 16.9 (0.40)     |      |
| BAI                          | 16.47 (10.02)  | 16.46 (19.07)   | 0.99 |
| Depressive disorder          | 17.5 (0.48)    | 18.5 (0.35)     |      |
| Anxiety disorder             | 20.2 (0.53)    | 19.1 (0.45)     |      |
| Adjustment disorder          | 8.73 (0.57)    | 10.6 (0.40)     |      |
| WHO-5                        | 33.49 (22.43)  | 32.56 (19.09)   | 0.82 |
| K-INK                        | 2.87 (0.61)    | 2.85 (0.64)     | 0.80 |
| SF-KSK                       | 49.63 (8.49)   | 51.64 (7.92)    | 0.22 |
| SF-PSK                       | 32.31 (10.56)  | 34.00 (9.02)    | 0.39 |
| IIP-32                       | 1.57 (0.46)    | 1.47 (0.40)     | 0.22 |

Notes: ITT, intent-to-treat; PT + EFT, psychological therapy + Emotion-Focused Therapy; PT + SR, psychological therapy + self-regulation; M, mean; SD, standard deviation.

Sensitivity analyses showed that adjustment for the baseline variable of primary diagnosis did not change the results substantially neither for primary nor secondary outcome variables.

As a measure of clinical significance, the number of participants who no longer fulfilled the criteria of their primary diagnosis at intake according to the SCID interview at posttreatment and 12-months follow-up was determined. Being conservative ( $N = 104$ ), 41% of all patients (35% in the PT + SR condition and 46% in the PT + EFT condition) presented evidence of remission at posttreatment, and 48% (46% in the PT + SR condition and 50% in the PT + EFT condition) at 12-months follow-up. There was no significant difference between the conditions neither at posttreatment ( $\chi^2(1) = 0.57$ ,  $p = 0.45$ ) nor follow-up ( $\chi^2(1) = 0.21$ ,  $p = 0.65$ ) in the ITT sample. The SCID interview was administered separately from the other outcome measures by a trained research assistant, blind to the experimental condition, via telephone, and resulted in  $N = 59$  responses at posttreatment and  $N = 55$  responses at 12-months follow-up with a considerable amount of missing data ( $N = 45$  and  $N = 49$  respectively). Considering only available data, 71% of patients (64% in the PT + SR condition and 77% in the PT + EFT condition) no longer fulfilled the criteria for their primary diagnosis according to DSM-IV at posttreatment ( $N = 59$ ). At 12-months follow-up ( $N = 55$ ), 91% of patients (92% in the PT + SR condition and 89% in the PT + EFT condition) no longer fulfilled the criteria for their primary diagnosis. There was no significant difference between the conditions neither at posttreatment ( $\chi^2(1) = 1.24$ ,  $p = 0.26$ ) nor follow-up ( $\chi^2(1) = 0.12$ ,  $p = 0.73$ ) in the completer sample.

TABLE 3 Within- and between-group effects from the piecewise mixed models in the ITT sample for intercept, intervention- and follow-up period

|                       | Within-group effects |      |       |       |        |         |       |       |      |       | Between-group effects |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|-----------------------|----------------------|------|-------|-------|--------|---------|-------|-------|------|-------|-----------------------|--------|-------|-------|-------|--------|-------|-------|-------|-------|----|----|---|---|--|
|                       | PT + EFT             |      |       |       |        | PT + SR |       |       |      |       | 95% CI                |        |       |       |       | 95% CI |       |       |       |       |    |    |   |   |  |
|                       | Est.                 | SE   | LB    | UB    | p      | d       | pp    | d     | pfu  | Est.  | SE                    | LB     | UB    | p     | d     | pp     | d     | pfu   | Est.  | SE    | LB | UB | p | d |  |
| Severity              |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Intercept             | -0.65                | 0.19 | -1.02 | -0.29 | <0.001 | -1.48   | -1.97 | -0.97 | 0.18 | -1.33 | -0.60                 | <0.001 | -1.81 | -1.71 | 0.31  | 0.26   | -0.20 | -0.83 | 0.24  | -0.3  |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Slope 1               | -0.08                | 0.01 | -0.10 | -0.06 | <0.001 |         |       | -0.10 | 0.01 | -0.12 | -0.08                 | <0.001 |       |       | 0.02  | 0.01   | -0.01 | 0.04  | 0.3   |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Slope 2               | -0.01                | 0.00 | -0.01 | 0.00  | 0.16   |         |       | 0.00  | 0.00 | 0.00  | 0.01                  | 0.32   |       |       | -0.01 | 0.01   | -0.02 | 0.00  | 0.09  |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Biosocial functioning |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Intercept             | -0.50                | 0.21 | -0.92 | -0.08 | <0.05  | -1.24   |       | -1.00 | 0.24 | -1.47 | -0.53                 | <0.001 | -1.77 | -2.23 | 0.27  | 0.34   | -0.39 | 0.94  | 0.43  | -0.27 |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Slope 1               | -0.08                | 0.01 | -0.10 | -0.06 | <0.001 |         |       | -0.10 | 0.01 | -0.12 | -0.08                 | <0.001 |       |       | 0.01  | 0.01   | -0.02 | 0.04  | 0.4   |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Slope 2               | -0.01                | 0.01 | -0.02 | 0.00  | 0.06   |         |       | -0.01 | 0.01 | -0.01 | 0.00                  | 0.40   |       |       | 0.00  | 0.01   | -0.01 | 0.01  | 0.96  |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| BSI (GSI)             |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Intercept             | 0.42                 | 0.06 | 0.31  | 0.53  | <0.001 | -1.29   | -1.75 | 0.34  | 0.06 | 0.23  | 0.46                  | <0.001 | -1.74 | -1.55 | 0.07  | 0.08   | -0.08 | 0.23  | 0.35  | -0.34 |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Slope 1               | -0.02                | 0.00 | -0.03 | -0.02 | <0.001 |         |       | -0.03 | 0.00 | -0.04 | -0.02                 | <0.001 |       |       | 0.01  | 0.00   | 0.01  | 0.13  | 0.26  |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Slope 2               | 0.00                 | 0.00 | 0.00  | 0.00  | 0.23   |         |       | 0.00  | 0.00 | -0.01 | 0.00                  | 0.31   |       |       | 0.00  | 0.00   | -0.01 | 0.00  | 0.12  |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| BDI                   |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Intercept             | 8.62                 | 1.64 | 5.42  | 11.84 | <0.001 | -1.21   | -1.53 | 6.45  | 1.64 | 3.24  | 9.66                  | <0.001 | -1.76 | -1.83 | 2.18  | 2.32   | -2.36 | 6.72  | 0.35  | -0.39 |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Slope 1               | -0.47                | 0.07 | -0.60 | -0.34 | <0.001 |         |       | -0.59 | 0.07 | -0.72 | -0.47                 | <0.001 |       |       | 0.12  | 0.09   | -0.06 | 0.30  | 0.2   |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Slope 2               | -0.03                | 0.02 | -0.08 | 0.02  | 0.19   |         |       | 0.00  | 0.02 | -0.05 | 0.05                  | 0.92   |       |       | -0.03 | 0.03   | -0.15 | 0.06  | 0.39  |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| BAI                   |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Intercept             | 6.43                 | 1.14 | 4.20  | 8.67  | <0.001 | -1.22   | -1.5  | 5.31  | 1.13 | 3.10  | 7.54                  | <0.001 | -1.22 | -1.05 | 1.12  | 1.61   | -2.04 | 4.27  | 0.29  | -0.07 |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Slope 1               | -0.41                | 0.06 | -0.54 | -0.29 | <0.001 |         |       | -0.43 | 0.06 | -0.56 | -0.31                 | <0.001 |       |       | 0.02  | 0.09   | -0.16 | 0.20  | 0.83  |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
| Slope 2               | -0.03                | 0.02 | -0.07 | 0.02  | 0.57   |         |       | 0.04  | 0.02 | 0.00  | 0.09                  | 0.07   |       |       | -0.07 | 0.03   | 0.14  | -0.01 | <0.05 |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |
|                       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |       |       |       |       |    |    |   |   |  |

TABLE 3 (Continued)

|           | Within-group effects |      |       |       |        |         |       |       |      |       | Between-group effects |        |       |       |       |        |        |      |      |       |    |    |   |   |  |
|-----------|----------------------|------|-------|-------|--------|---------|-------|-------|------|-------|-----------------------|--------|-------|-------|-------|--------|--------|------|------|-------|----|----|---|---|--|
|           | PT + EFT             |      |       |       |        | PT + SR |       |       |      |       | 95% CI                |        |       |       |       | 95% CI |        |      |      |       |    |    |   |   |  |
|           | Est.                 | SE   | LB    | UB    | p      | d       | pp    | d     | pfu  | Est.  | SE                    | LB     | UB    | p     | d     | pp     | d      | pfu  | Est. | SE    | LB | UB | p | d |  |
| WHO       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |        |      |      |       |    |    |   |   |  |
| Intercept | 59.89                | 3.18 | 53.66 | 66.12 | <0.001 | 1.25    | 1.32  | 62.11 | 3.14 | 55.95 | 68.27                 | <0.001 | 1.37  | 1.59  | -2.23 | 4.48   | -11.00 | 6.54 | 0.62 | 0.2   |    |    |   |   |  |
| Slope 1   | 1.13                 | 0.15 | 0.83  | 1.42  | <0.001 |         |       | 1.15  | 0.15 | 0.86  | 1.44                  | <0.001 |       |       | -0.02 | 0.21   | -0.44  | 0.39 | 0.91 |       |    |    |   |   |  |
| Slope 2   | 0.01                 | 0.06 | -0.11 | 0.13  | 0.87   |         |       | 0.00  | 0.06 | -0.12 | 0.13                  | 0.99   |       |       | -0.01 | 0.09   | -0.16  | 0.18 | 0.92 |       |    |    |   |   |  |
| IIP       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |        |      |      |       |    |    |   |   |  |
| Intercept | 1.19                 | 0.08 | 1.06  | 1.34  | <0.001 | -0.54   | -0.87 | 1.09  | 0.08 | 0.94  | 1.24                  | <0.001 | -1.03 | -1.32 | 0.10  | 0.08   | -0.12  | 0.31 | 0.37 | -0.2  |    |    |   |   |  |
| Slope 1   | -0.01                | 0.00 | -0.02 | -0.01 | <0.001 |         |       | -0.02 | 0.00 | -0.02 | -0.01                 | <0.001 |       |       | 0.01  | 0.00   | 0.00   | 0.01 | 0.15 |       |    |    |   |   |  |
| Slope 2   | 0.00                 | 0.00 | -0.01 | 0.00  | <0.01  |         |       | 0.00  | 0.00 | -0.01 | 0.00                  | <0.05  |       |       | 0.00  | 0.00   | 0.00   | 0.00 | 0.7  |       |    |    |   |   |  |
| INK       |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |        |      |      |       |    |    |   |   |  |
| Intercept | 2.30                 | 0.09 | 2.12  | 2.48  | <0.001 | -0.73   | -0.73 | 2.11  | 0.09 | 1.93  | 2.30                  | <0.001 | -1.15 | -0.83 | 0.18  | 0.13   | -0.07  | 0.44 | 0.17 | -0.25 |    |    |   |   |  |
| Slope 1   | -0.02                | 0.00 | -0.03 | -0.01 | <0.001 |         |       | -0.03 | 0.01 | -0.04 | -0.02                 | <0.001 |       |       | 0.01  | 0.01   | -0.01  | 0.02 | 0.31 |       |    |    |   |   |  |
| Slope 2   | 0.00                 | 0.00 | 0.00  | 0.00  | 0.8    |         |       | 0.00  | 0.00 | 0.00  | 0.01                  | <0.05  |       |       | 0.00  | 0.00   | -0.01  | 0.00 | 0.15 |       |    |    |   |   |  |
| SF_K      |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |        |      |      |       |    |    |   |   |  |
| Intercept | 54.66                | 0.87 | 52.59 | 55.66 | <0.001 | 0.42    | 0.31  | 53.20 | 0.86 | 51.83 | 55.02                 | <0.001 | 0.53  | 0.63  | 1.45  | 1.23   | -1.52  | 2.92 | 0.24 | -0.15 |    |    |   |   |  |
| Slope 1   | 0.12                 | 0.05 | -0.01 | 0.20  | <0.05  |         |       | 0.14  | 0.05 | 0.06  | 0.26                  | <0.01  |       |       | -0.02 | 0.07   | -0.21  | 0.08 | 0.76 |       |    |    |   |   |  |
| Slope 2   | -0.02                | 0.02 | -0.06 | 0.03  | 0.43   |         |       | 0.01  | 0.02 | -0.04 | 0.11                  | 0.81   |       |       | -0.02 | 0.03   | -0.14  | 0.03 | 0.48 |       |    |    |   |   |  |
| SF-P      |                      |      |       |       |        |         |       |       |      |       |                       |        |       |       |       |        |        |      |      |       |    |    |   |   |  |
| Intercept | 46.07                | 1.44 | 43.25 | 48.89 | <0.001 | 0.46    | 0.51  | 48.53 | 1.51 | 45.56 | 51.50                 | <0.001 | 1.52  | 1.91  | -2.13 | 1.51   | -6.35  | 2.08 | 0.33 | 0.18  |    |    |   |   |  |
| Slope 1   | 0.50                 | 0.08 | 0.34  | 0.65  | <0.001 |         |       | 0.62  | 0.08 | 0.47  | 0.77                  | <0.001 |       |       | -0.11 | 0.11   | -0.32  | 0.10 | 0.29 |       |    |    |   |   |  |
| Slope 2   | 0.06                 | 0.04 | -0.01 | 0.13  | 0.11   |         |       | 0.01  | 0.05 | -0.05 | 0.08                  | 0.65   |       |       | 0.01  | 0.04   | -0.07  | 0.10 | 0.77 |       |    |    |   |   |  |

(Continues)

TABLE 3 (Continued)

|           | Within-group effects |      |       |       |        |         |       |        |   |  | Between-group effects |      |       |       |  |        |      |       |      |      |
|-----------|----------------------|------|-------|-------|--------|---------|-------|--------|---|--|-----------------------|------|-------|-------|--|--------|------|-------|------|------|
|           | PT + EFT             |      |       |       |        | PT + SR |       |        |   |  |                       |      |       |       |  | 95% CI |      |       |      |      |
|           | Est.                 | SE   | LB    | UB    | 95% CI | Est.    | d     | pp     | p |  | Est.                  | d    | pp    | p     |  | Est.   | SE   | LB    | UB   | p    |
| HAMID     |                      |      |       |       |        |         |       |        |   |  |                       |      |       |       |  |        |      |       |      |      |
| Intercept | 2.83                 | 0.80 | 1.27  | 4.39  |        | -1.56   | -1.14 | <0.001 |   |  | 3.32                  | 0.87 | 1.62  | 5.02  |  | -0.49  | 1.17 | -2.80 | 1.82 | 0.68 |
| Slope 1   | -0.24                | 0.04 | -0.32 | -0.16 |        |         |       | <0.001 |   |  | -0.25                 | 0.04 | -0.33 | -0.16 |  | 0.00   | 0.06 | -0.11 | 0.12 | 0.96 |
| Slope 2   | -0.01                | 0.02 | -0.05 | 0.02  |        |         | 0.46  |        |   |  | 0.00                  | 0.02 | -0.04 | 0.04  |  | -0.01  | 0.03 | -0.07 | 0.04 | 0.68 |

Note: *d* in dpp indicate Cohen's *d*.  
Abbreviations: CI, confidence interval; ITT, intent-to-treat; LB, lower bound; PT + SR, psychological therapy + self-regulation; PT + EFT, psychological therapy + Emotion-Focused Therapy; pp, pre to post; pfu, pre to follow-up; SE, standard error; UB, upper bound.



## 4 | DISCUSSION

When new elements are integrated into an existing approach, the primary intention must be to improve treatment effects. For the integration of EFT elements, we had particularly positive expectations, as they seemed suitable for addressing a perceived deficit of PT, and EFT is an approach with specific strengths. While balancing out a general, unspecific effect of additional training, SR was expected to add to the effects of therapy, but—given it is closer to the PT base in terms of concepts as well as interventions—not as much as EFT. The findings show that while both conditions display substantial changes over the intervention and follow-up periods, no superiority of +EFT has been found. In the BAI (anxiety), superiority of EFT has been found, yet given multiple testing, this should not be overinterpreted. The leading hypothesis in this study that the addition of EFT elements more than the addition of SR elements would lead to more thorough change, not at post, but at follow-up, is not confirmed.

What could be valid explanations for these findings? First, the assumption may simply be wrong that the integration of EFT elements as implemented in this study would augment the effects of PT-based therapies more than adding the SR elements. Second, the well-known, much-discussed equivalence paradox comes to mind, which had been known to the investigators all along: that although there are all kind of reasons why different forms of bona fide therapy should differ in outcome, it usually turns out that they do not. One explanation of equivalence is that it results from averaging over subgroups for which differences could be found. In our analyses, we have checked for and failed to find differences between diagnostic subgroups. Further mediator and moderator analyses will have to be done.

Several other explanations for the lack of superiority of the +EFT condition seem plausible. They should, however, be considered with the possibility in mind that the difficulty of finding a superiority among two forms of therapy of which both are particularly effective, already explains it all: While the therapists clearly differed in their procedure, as an adherence check showed, the training in EFT elements may not have been sufficient to lead to a significant difference in effects. It has to be kept in mind that the intention was to mimic AI with limited input, assuming that this is more in line with dominant practice, while a standard training in EFT would be significantly longer. It is viewed as a complex approach requiring both the therapist's personal development and the learning of complex skills.

The involvement of top representatives of the EFT approach in our trainings stands for training of high quality and integrity. Yet, it is possible that the amount of training was not sufficient. For this interpretation, one has to consider that therapists with a PT background can be expected to have an advantage over average CBT therapists as they have in their training already learned to pay particular attention to the therapy relationship and have acquired basics of working with emotions. We found that the two conditions clearly differ in line with what the therapists are prescribed to do, and that, in particular, EFT therapists enacted more meaning-making, the crucial last stage in the EFT transformation process (Stähli et al., 2021). These are indicators that therapists actually did what they were expected to do. Nevertheless, the conclusion could be drawn that EFT is generally an approach requiring a minimum of training exceeding what had been offered in this study.

As argued in general with reference to the equivalence paradox, common factors may have rendered the therapies in the two conditions similar. Common factors may correspond to what is incorporated to a high degree in PT: the attention to the therapeutic relationship, therapy planning based on individual case conceptualizations, and therapeutic empathy. If so, the lack of difference in outcome would be a valid reflection of EFT elements not adding visibly much to a solid base of common factors present in both conditions.

It could be argued that each of the add-ons has increased the effects compared to PT to the same extent, although in different ways. This would be plausible if the effect sizes of PT were considerably lower than for the two combinations in the current study. It would have been desirable to have a third experimental condition with pure PT. This was not feasible in terms of patient flow within the time funded by Swiss National Science Foundation. The effect sizes reported in Grosse Holtforth et al. (2011) for PT are, however, of similar magnitude. Although these studies are not directly comparable in terms of patient and therapist selection as well as details of

the procedure, the comparison speaks against the assumption that PT alone would have rendered much lower effect sizes than any of the Improve combinations.

A more inferential interpretation would be that the demand to integrate something new generally had a disturbing effect which may have been even stronger for +EFT. An advantage of +EFT may thus have been compromised or neutralized by difficulties in integrating a new procedure. A consequence of this view would be that such a possible (temporary) disadvantage should be given more attention (Heer et al., 2021).

## 5 | LIMITATIONS

Several limitations need to be mentioned: The number of participating patients (104) was smaller than the 130 suggested by the power calculations. While PT can be seen as an integrative form of CBT, it is open to what extent the findings can be generalized for CBT as a point of departure in the integration, or even further for any psychotherapeutic approach. It remains to be seen how the integration of EFT elements would have fared in comparison to the integration of a different approach than SR. It has not been investigated how therapists fared once more time had passed since the integrative training. Has more practice led to better integration of elements that turned out to be useful over time? Or, negatively: Has most been lost of what they had learned in the limited training for the study?

## 6 | CONCLUSION

There is a general tendency to attribute a superior value to investigations with significant main effects. We hold that a very general insight of theoretical as well as practical value can be derived from this study: It would be naïve to simply assume that under real-world conditions, adding a good thing to an already good thing necessarily leads to a better thing. Extensive further evaluation will be needed to acquire a more complete understanding of the processes of integration that have taken place in this study. And while we still see the investigation of a limited amount of training as relevant for the practice of AI, the question of whether and how much more training might lead to a tangible superiority of the resulting approach would deserve further attention.

## ACKNOWLEDGMENTS

F. C. was P. I., T. B. and M. g. H. coapplicants, A. B. did all analyses supported by JMGP and wrote the methods and results sections of the manuscript. A. B., S. H., M. L. and A. S. worked with multiple tasks as assistants in the project. D. H., Y. E., E. F., T. K., F. R., D. R., and E. S. ran the clinic during the project and conducted intake interviews, C. F. and J. B. were involved in the ethics application, L. G., L. C., and U. K. were cooperation partners involved mainly in the planning and discussion, L. A., I. H., and M. B., in addition to L. G., did the E. F. T. training and were involved in the discussion. These were the main roles; several of these persons were involved in multiple roles. Our thanks go to all participating therapists and patients. Without their dedication and cooperation, the project would not have been possible. This study was supported by the Swiss National Science Foundation (SNF) under 100019\_159425. Open access funding provided by Universitat Bern.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## ETHICS STATEMENT

The protocol has been published as the Canton Bern, KEK BE 168/15. The ethics approval was provided by the Ethics Committee of the Canton Bern, KEK BE 168/15, which includes the consent of all participants.

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

**How to cite this article:** Caspar, F., Berger, T., Holtforth, M. g., Babl, A., Heer, S., Lin, M., Stähli, A., Gomez Penedo, J. M., Holstein, D., Egenolf, Y., Frischknecht, E., Krieger, T., Ramseyer, F., Regli, D., Schmied, E., Flückiger, C., Brodbeck, J., Greenberg, L., Carver, C. S., ... Belz, M. (2022). The impact of integrating emotion focused components into psychological therapy: A randomized controlled trial. *Journal of Clinical Psychology*, 1–20. <https://doi.org/10.1002/jclp.23421>