The Efficacy of Psychodynamic Psychotherapy in Specific Mental Disorders: A 2013 Update of Empirical Evidence

Falk Leichsenring D.Sc., Susanne Klein M.Sc. &
Simone Salzer D.Sc.
Published online: 16 Apr 2014.

PLEASE SCROLL DOWN FOR ARTICLE

FALK LEICHSENRING, D.Sc., SUSANNE KLEIN, M.Sc.,
AND SIMONE SALZER, D.Sc.

THE EFFICACY OF PSYCHODYNAMIC PSYCHOTHERAPY IN SPECIFIC MENTAL DISORDERS:

A 2013 UPDATE OF EMPIRICAL EVIDENCE

Abstract. This article reviews the empirical evidence for psychodynamic therapy for specific mental disorders in adults. The focus is on randomized controlled trials (RCTs). However, this does not imply that RCTs are uncritically accepted as the gold standard for demonstrating that a treatment works. According to the results presented here, there is evidence from RCTs that psychodynamic therapy is efficacious in common mental disorders, that is, depressive disorders, anxiety disorders, somatic symptom disorders, personality disorders, eating disorders, complicated grief, posttraumatic stress disorder (PTSD), and substance-related disorder. These results clearly contradict assertions repeatedly made by representatives of other psychotherapeutic approaches claiming psychodynamic psychotherapy is not empirically supported. However, further research is needed, both on outcome and processes of psychodynamic psychotherapy. There is a need, for example, for RCTs of psychodynamic psychotherapy of PTSD. Furthermore, research on long-term psychotherapy for specific mental disorders is required.

Keywords: psychodynamic psychotherapy, empirically supported treatments, psychotherapy outcome research, evidence-based medicine

There is a need for empirical outcome research in psychodynamic and psychoanalytic therapy (Gunderson & Gabbard, 1999). In this article, the available evidence for psychodynamic psychotherapy in adults

is reviewed. The focus will be on randomized controlled trials (RCTs), which are regarded as the "gold standard" for demonstrating treatment efficacy in clinical psychology and medicine.

Evidence for Psychodynamic Psychotherapy in Specific Mental Disorders

The aim of this review is to identify those mental disorders for which RCTs provide evidence for the efficacy of psychodynamic psychotherapy (PDT). Here, the criteria proposed by the Task Force on Promotion and Dissemination of Psychological Procedures of the American Psychological Association, modified by Chambless and Hollon (1998) to define efficacious treatments, were applied. Only RCTs were included in which psychodynamic psychotherapy was compared to (a) no treatment (waiting list, minimal contact), placebo, or treatment as usual, or to (b) pharmacotherapy or other (nonpsychodynamic) forms of psychotherapy. Studies examining the combination of psychodynamic therapy and medication were not included; concomitant medication in both treatment arms, however, was allowed. Previous reviews were given, for example, by Fonagy, Roth, and Higgitt (2005), Leichsenring (2005), Shedler (2010), and Gerber et al. (2011). In psychotherapy outcome research, RCTs are regarded as the "gold standard" because they control for known and unknown differences between subjects before treatment. For a critical discussion of the role of RCTs, see Roth and Parry, 1997; Leichsenring, 2004; Westen, Novotny, and Thompson-Brenner, 2004; and Rothwell, 2005. As Roth and Parry (1997) put it, " . . . their results are best seen as one part of a research cycle. . . . " (p. 370).

Definition of Psychodynamic Psychotherapy

Psychodynamic psychotherapy operates on an interpretive-supportive continuum (Wallerstein, 1989; Gunderson & Gabbard, 1999). Interpretive interventions enhance the patient's insight about repetitive conflicts sustaining his or her problems (Luborsky, 1984; Gabbard, 2004). Supportive interventions aim to strengthen abilities ("ego-functions") that are temporarily not accessible to a patient due to acute stress (e.g., traumatic events) or ones that have not been sufficiently developed (e.g., impulse control in borderline personality disorder). Thus, supportive interventions maintain or build ego functions (Wallerstein, 1989). Supportive interventions include, for example, fostering a therapeutic alliance, setting of

goals, or strengthening of ego functions such as reality testing or impulse control (Luborsky, 1984). The use of more supportive or more interpretive (insight-enhancing) interventions depends on the patient's needs. The more severely disturbed a patient is, or the more acute his or her condition, the more supportive and the less interpretive interventions are required and vice versa (Luborsky, 1984; Wallerstein, 1989). Borderline patients, as well as healthy subjects in an acute crisis or after a traumatic event, may need more supportive interventions (e.g., stabilization, providing a safe and supportive environment). Thus, a broad spectrum of psychiatric problems and disorders can be treated with psychodynamic psychotherapy, ranging from milder adjustment disorders or stress reactions to severe personality disorders such as borderline personality disorder or psychotic conditions.

Efficacy Studies of Psychodynamic Psychotherapy in Specific Mental Disorders

Forty-four RCTs providing evidence for the efficacy of psychodynamic psychotherapy in specific mental disorders were identified and included in this review. These studies are presented in Table 1.

Models of Psychodynamic Psychotherapy

In the studies identified, different forms of psychodynamic psychotherapy were applied (Table 1). The models developed by Luborsky (1984), Shapiro and Firth (1985), or Malan (1976) were used most frequently.

Evidence for the Efficacy of Psychodynamic Psychotherapy in Specific Mental Disorders

The studies of psychodynamic psychotherapy included in this review will be presented for the different mental disorders. However, from a psychodynamic perspective, the results of a therapy for a specific psychiatric disorder (e.g., depression, agoraphobia) are influenced by the underlying psychodynamic features (e.g., conflicts, defenses, personality organization), which may vary considerably within one category of psychiatric disorder (Kernberg, 1996). These psychodynamic factors may affect treatment outcome and may have a greater impact on outcome than

Table 1

Randomized Controlled Studies of Psychodynamic Psychotherapy (PP) in Specific Mental Disorders

Disorder	Study	N (PP)	Comparison Group	Concept of PP	Treatment Duration
Depressive disorders					
Major depression	Barber et al., 2012	51	Pharmacotherapy: n = 55; placebo: n = 50	Luborsky	20 sessions, 16 weeks
Major depression	Barkham et al., 1996	18	CBT: n = 18	Shapiro & Firth	8 vs. 16 sessions
Major, minor, or intermittent depression	Gallagher-Thompson & Steffen, 1994	30	CBT: n = 36	Mann; Rose & DelMaestro	16–20 sessions
Major depression	Johansson et al., 2012	46	Structured support: n = 46	Internet-guided self-help; Silverberg	10 weeks
Dysthymic disorder	Maina et al., 2005	10	Supportive therapy: n = 10; wait list: n = 10	Malan	15–30 (M = 19.6)
Major depression	Salminen et al., 2008	26	Fluoxetine, n = 25	Mann, Malan	16 sessions
Major depression	Shapiro et al., 1994	58	CBT: n = 59	Shapiro & Firth	8 vs. 16 sessions

Major depression	Thompson et al., 1987	24	BT: n = 25; CBT: n = 27; waiting list: n = 19	Horowitz & Kaltreider	16–20 sessions
Anxiety disorders					
Social phobia	Bögels et al., 2003	22	CBT: n = 27	Malan	36
Generalized anxiety disorder	Crits-Christoph et al., 2005	15	Supportive therapy: n = 16	Luborsky; Crits-Christoph et al.	16 sessions
Social phobia	Knijnik et al., 2004	15	Credible Placebo Control Group: n = 15	Knijnik et al.	12 sessions
Generalized anxiety disorder	Leichsenring et al, 2009	28	CBT: n = 29	Luborsky; Crits-Christoph et al.	30
Social phobia	Leichsenring, Salzer, et al., 2013	207	Cognitive therapy: n = 209; waiting list n = 79	Luborsky; Leichsenring, Beutel, Leibing	30
Panic disorder	Milrod et al., 2007	26	CBT (applied relaxation): n = 23	Milrod et al.	24 sessions

Table 1

(Continued)

Disorder	Study	N (PP)	Comparison Group	Concept of PP	Treatment Duration
Mixed samples of depressive and anxiety disorders					
Depressive and anxiety disorders	Bressi et al., 2010	30	TAU: n = 30	Malan	40 sessions, 1 year
Depressive and anxiety disorders	Knekt, Lindfors, Laaksonen, et al., 2008	128, 101	Solution-focused therapy, n = 97	Malan, Sifneos; Gabbard	235; 49.9; 29.9
PTSD	Brom et al., 1989	29	desensitization: n = 31; hypnotherapy: n = 29	Horowitz	18.8 sessions
Somatic symptom disorders					
Irritable bowel	Creed et al., 2003	59	Paroxetine: n = 43; treatment as usual: n = 86	Hobson; Shapiro & Firth	8 sessions
Irritable bowel	Guthrie et al., 1991	50	supportive listening: n = 46	Hobson; Shapiro & Firth	8 sessions

Functional dyspepsia	Hamilton et al., 2000	37	Supportive therapy: n = 36	Shapiro & Firth	7 sessions
Somatoform pain disorder	Monsen & Monsen, 2000	20	treatment as usual/no therapy: n = 20	Monsen & Monsen	33 sessions
Multi-somatoform disorder	Sattel et al., 2012	107	enhanced medical care: n = 104	Hardy, Barkham et al.	12 sessions
Eating disorders					
Anorexia nervosa, bulimia nervosa	Bachar et al., 1999	17	CT: n = 17; nutritional counseling: n = 10	Barth; Goodsitt; Geist	46 sessions
Anorexia nervosa	Dare et al., 2001	21	Cognitive-analytic therapy (Ryle): n = 22; family therapy: n = 22; routine treatment: n = 19	Malan; Dare	M = 24.9 sessions
Bulimia nervosa	Fairburn et al., 1986	11	CBT: n = 11	Rosen; Stunkard; Bruch	19 sessions
Bulimia nervosa	Garner et al., 1993	25	CBT: n = 25	Luborsky	19 sessions
Anorexia nervosa	Gowers et al., 1994	20	treatment as usual: n = 20	Crisp	12 sessions
Binge eating disorder	Tasca et al., 2006	48	Group CBT: n = 47; waiting list: n = 40	Tasca et al.	16 sessions

Table 1

(Continued)

Disorder	Study	N (PP)	Comparison Group	Concept of PP	Treatment Duration
Substance-related disorders					
Cocaine dependence	Crits-Christoph et al., 1999, 2001	124	CBT + group drug counseling (DC): n = 97, individual DC: n = 92, individual DC + group DC: n = 96	Mark & Luborsky + group DC	Up to 36 individual and 24 group sessions; 4 months
Alcohol dependence	Sandahl et al., 1998	25	CBT: n = 24	Foulkes	15 sessions (M = 8.9)
Opiate dependence	Woody et al., 1983, 1990	31	Drug counseling (DC): n = 35; CBT + DC: n = 34	Luborsky + drug counseling	12 sessions
Opiate dependence	Woody et al., 1995	57	Drug counseling: n = 27	Luborsky + drug counseling	26 sessions
Borderline personality disorder	Bateman & Fonagy, 1999, 2001	19	Treatment as usual: n = 19	Bateman & Fonagy	18 months
Borderline personality disorder	Bateman & Fonagy, 2009	71	Structured clinical management, n = 63	Bateman & Fonagy	18 months

Disorder	Study	N	Comparison	Manual authors	Duration
Borderline personality disorder	Clarkin et al., 2007	30	Dialectical behavioral therapy: n = 30; supportive therapy: n = 30	Kernberg, Clarkin et al.	12 months
Borderline personality disorder	Doering et al., 2010	43	Treatment by experienced community therapists, n = 29	Clarkin et al.	Assessment after 1 year
Borderline personality disorder	Giesen-Bloo et al., 2006	42	CBT: n = 44	Kernberg, Clarkin et al.	3 years with sessions twice a week
Borderline personality disorder	Gregory et al., 2008	15	Treatment as usual: n = 15	Gregory & Remen	24.9 sessions
Borderline personality disorder	Munroe-Blum & Marziali, 1995	31	Interpersonal group therapy: n = 25	Kernberg	17 sessions
Cluster C personality disorders	Muran et al., 2005	22	Brief relational therapy: n = 33; CBT: n = 29	Pollack et al.	30 sessions
Cluster C personality disorders	Svartberg et al., 2004	25	CBT: n = 25	Malan, McCullough Vaillant	40 sessions

FALK LEICHSENRING, D.Sc. ET AL.

Table 1

(Continued)

Disorder	Study	N (PP)	Comparison Group	Concept of PP	Treatment Duration
Avoidant personality disorder	Emmelkamp et al., 2006	23	CBT: n = 21; waiting list: n = 18	Malan; Luborsky; Luborsky & Mark; Pinsker et al.	20 sessions
Samples of mixed personality disorders					
Heterogeneous personality disorders	Abbass et al., 2008	14	Minimal contact: n = 14	Davenloo	27.7 sessions (mean)
Primarily Cluster C personality disorders	Hellerstein et al., 1998	25	Brief supportive psychotherapy: n = 24	Davenloo	40 sessions
Heterogeneous personality disorders	Winston et al,1994	25	Brief adaptive psychotherapy: n = 30; waiting list: n = 26	Davenloo	40 weeks, M = 40.3 sessions

the phenomenological DSM categories (Piper, McCallum, Joyce, Rosie, & Ogrodniczuk, 2001).

Depressive Disorders

Cognitive-behavioral therapists encourage the patient to become more active and work through depressive cognitions. Psychodynamic therapists focus on the conflicts or ego-functions associated with depressive symptoms. At present, several RCTs are available that provide evidence for the efficacy of psychodynamic psychotherapy compared to cognitive-behavioral therapy (CBT) in major depressive disorder (Thompson, Gallagher, & Breckenridge, 1987; Gallagher-Thompson & Steffen, 1994; Shapiro et al., 1994; Barkham et al., 1996). Different models of psychodynamic psychotherapy were applied (Table 1). For these studies, a meta-analysis (Leichsenring, 2001) found psychodynamic psychotherapy and CBT to be equally effective with regard to depressive symptoms, general psychiatric symptoms, and social functioning. In this meta-analysis, psychodynamic psychotherapy achieved large pre-post effect sizes in depressive symptoms, general psychiatric symptoms, and social functioning. The results proved to be stable in follow-up studies (Gallagher-Thompson, Hanley-Peterson, & Thompson, 1990; Shapiro et al., 1995). These results are consistent with the findings of the meta-analysis by Wampold, Minami, Baskin, and Tierney (2002) who did not find significant differences between CBT and "other therapies" in the treatment of depression. In an RCT by Salminen et al. (2008), psychodynamic psychotherapy was found to be equally efficacious as fluoxetine in reducing symptoms of depression and improving functional ability. However, with sample sizes of $n_1 = 26$ and $n_2 = 25$, statistical power may have not been sufficient to detect possible differences between treatments. In a small RCT, Maina, Forner, and Bogetto (2005) examined the efficacy of psychodynamic psychotherapy and brief supportive therapy in the treatment of minor depressive disorders (dysthymic disorder, depressive disorder not otherwise specified, or adjustment disorder with depressed mood). Both treatments were superior to a wait list condition at the end of treatment. At six-month follow-up, psychodynamic psychotherapy was superior to brief supportive therapy.

A recent meta-analysis that examined the effects of CBT, psychodynamic psychotherapy, interpersonal therapy and other forms of psychotherapy in adult depression did not find one treatment significantly

superior to others, with the exception of interpersonal therapy (Cui-jpers, van Straten, Andersson, & van Oppen, 2008). Another recent meta-analysis examined the effects of psychodynamic psychotherapy in de-pression (Driessen et al., 2010). The authors found psychodynamic psy-chotherapy significantly superior to control conditions. If group therapy was included, PDT was less efficacious compared to other treatments at the end of therapy. If only individual therapy was included, there were no significant differences between PDT and other treatments (Abbass & Driessen, 2010). In three-month and nine-month follow-ups, no signifi-cant differences between treatments were found. In a recent study by Bar-ber, Barrett, Gallop, Rynn, and Rickels (2012), PDT and pharmacotherapy were equally effective in the treatment of depression. However, neither PDT nor pharmacotherapy was superior to placebo.

Meanwhile, Internet-guided self-help is also available for psychody-namic psychotherapy. In an RCT, Johansson et al. (2012) found Internet-guided self-help based on psychodynamic psychotherapy significantly more efficacious than a structured support intervention (psychoeduca-tion and scheduled weekly contacts online) in patients with MDD. Treat-ment effects were maintained at 10-month follow-up. Psychodynamically oriented self-help was based on the concept by Silverberg (2005). Silver-berg's Internet-guided self-help based on psychodynamic psychotherapy is a promising approach, especially for patients who do not receive psy-chotherapy. Further studies should be carried out.

In sum, several RCTs provide evidence for the efficacy of psycho-dynamic psychotherapy in depressive disorders. Nevertheless, further studies are required to broaden the evidence base for psychodynamic psychotherapy. In particular, RCTs on long-term treatments should be carried out.

Pathological Grief

In two RCTs by McCallum and Piper (1990) and Piper et al. (2001) the treatment of prolonged or complicated grief by short-term psychody-namic group therapy was studied. In the first study, short-term psycho-dynamic group therapy was significantly superior to a wait list (McCallum & Piper, 1990). In the second study, a significant interaction was found. With regard to grief symptoms, high quality of object relations patients improved more in interpretive therapy, and low quality of object relations patients improved more in supportive therapy. For general symptoms,

clinical significance favored interpretive therapy over supportive therapy (Piper et al., 2001).

Anxiety Disorders

For anxiety disorders, several RCTs are presently available (Table 1). With regard to *panic disorder* (with or without agoraphobia), Milrod et al. (2007) showed in a recent RCT that psychodynamic psychotherapy was more successful than applied relaxation. For *social phobia*, two RCTs of psychodynamic therapy exist: In the first study, short-term psychodynamic group treatment for generalized social phobia was superior to a credible placebo control (Knijnik, Kapczinski, Chachamovich, Margis, & Eizirik, 2004).

In a study by Bögels, Wijts, Oort, and Sallerts (2014), psychodynamic psychotherapy proved to be as effective as CBT in the treatment of (generalized) social phobia.

In a large-scale multicenter RCT, the efficacy of psychodynamic psychotherapy and cognitive therapy (CT) in the treatment of social phobia was studied (Leichsenring et al., 2013). In an outpatient setting, 495 patients with a primary diagnosis of social phobia were randomly assigned to CBT, psychodynamic psychotherapy, or to waiting list. Treatments were carried out according to manuals and treatment fidelity was carefully controlled for. Both treatments were significantly superior to the waiting list. Thus, this trial provides evidence that psychodynamic psychotherapy is effective in the treatment of social phobia according to the criteria proposed by Chambless and Hollon (1998). There were no differences between PDT and CT with regard to response rates (52% vs. 60%) and reduction of depression. There were significant differences between CT and PDT in favor of CT, however, with regard to remission rates (36% vs. 26%), self-reported symptoms of social phobia, and reduction of interpersonal problems. Differences in terms of between-group effect sizes, however, were small (Leichsenring et al., 2013).

In a randomized controlled feasibility study of *generalized anxiety disorder*, psychodynamic psychotherapy was equally effective as a supportive therapy with regard to continuous measures of anxiety, but significantly superior on symptomatic remission rates (Crits-Christoph, Connolly Gibbons, Narducci, Schamberger, & Gallop, 2005). However, the sample sizes of that study were relatively small (n = 15 vs. n = 16), and the study was not sufficiently powered to detect more possible differences

between treatments. In another RCT of generalized anxiety disorder, psychodynamic psychotherapy was compared to CBT (Leichsenring et al., 2009). Psychodynamic psychotherapy and CBT were equally effective with regard to the primary outcome measure. However, in some secondary outcome measures, CBT was found to be superior, both at the end of therapy and at the six-month follow-up. Other differences may exist that were not detected due to the limited sample size and power (CBT: n = 29; psychodynamic psychotherapy: n = 28). At the one-year follow-up, results proved to be stable (Salzer, Winkelbach, Leweke, Leibing, & Leichsenring, 2011). Contrary to short-term psychodynamic psychotherapy, a core element in the applied method of CBT consisted of a modification of worrying. This specific difference between the treatments may explain the superiority of CBT in the Penn State Worry Questionnaire and, in part, also in the State-Trait-Anxiety Inventory (trait measure)—the latter also contains several items related to worrying. The results of that study may suggest that the outcome of short-term psychodynamic psychotherapy in generalized anxiety disorder may be further optimized by employing a stronger focus on the process of worrying. In psychodynamic psychotherapy, worrying can be conceptualized as a mechanism of defense that protects the subject from fantasies or feelings that are even more threatening than the contents of his or her worries (Crits-Christoph, Wolf-Palacio, Ficher, & Rudick, 1995).

According to the available RCTs, psychodynamic psychotherapy is efficacious in anxiety disorders. If there were differences between psychodynamic psychotherapy and CBT, they were found in secondary outcome measures or corresponded to small differences in effect size. This is consistent with a recent meta-analysis by Baardseth et al. (2013), who did not find significant differences in favor of CBT compared to bona fide treatments.

Mixed Samples of Depressive and Anxiety Disorders

Knekt, Lindfors, Harkanen, et al. (2008) and Knekt, Lindfors, Laaksonen, et al. (2008) compared short-term psychodynamic psychotherapy (STPP), long-term psychodynamic psychotherapy (LTPP), and solution-focused therapy (SFT) in patients with depressive or anxiety disorders. STPP was more effective than LTPP during the first year. During the second year of follow-up, no significant differences were found between long-term and short-term treatments. In the three-year follow-up, LTPP was more effective; no significant differences were found between the short-term treatments. With regard to specific mental disorders, it is of note that after

three years, significantly more patients recovered from anxiety disorders in LTPP (90%) compared to STPP (67%) and SFT (65%). For depressive disorders, no such differences occurred. In an RCT by Bressi, Porcellana, Marinaccio, Nocito, and Magri (2010), PDT was superior to Treatment as Usual (TAU) in a sample of patients with depressive or anxiety disorders.

Posttraumatic Stress Disorder

In an RCT by Brom, Kleber, and Defares (1989), the effects of psychodynamic psychotherapy, behavioral therapy and hypnotherapy in patients with posttraumatic stress disorder (PTSD) were studied. All of the treatments proved to be equally effective. The results reported by Brom et al. (1989) are consistent with that of a more recent meta-analysis by Benish, Imel, and Wampold (2008), which found no significant differences between bona fide treatments for the treatment of PTSD. In a response to the meta-analysis by Benish et al., Ehlers et al. (2010) critically reviewed the study by Brom et al. (1989). A comprehensive discussion and convincing reply to the critique by Ehlers et al. (2010) was given by Wampold et al. (2010). In the present context, we only shall address the critique put forward by Ehlers et al. (2010) against the study by Brom et al. (1989). Ehlers et al. (2010) reviewed the study by Brom et al. (1989) in the following way: "In this study, neither hypnotherapy nor psychodynamic therapy was consistently more effective than the waiting list control condition across the analyses used. . . . In addition, Brom et al. (1989) pointed out that patients in psychodynamic therapy showed slower overall change than those in the other two treatment conditions, and did *not* improve in intrusive symptoms significantly. . . ." (p. 273).

Results are different for different outcome measures. For the avoidance scale and the total score of the Impact of Event Scale, psychodynamic psychotherapy was significantly superior to the waiting list condition, both after therapy and at follow-up (Brom et al., 1989, pp. 610). Although effect sizes for psychodynamic psychotherapy were somewhat smaller at posttreatment (avoidance: 0.66, total: 1.10), psychodynamic psychotherapy achieved the largest effect sizes at follow-up (avoidance: 0.92, total: 1.56) as compared to CBT (0.73, 1.30) and hypnotherapy (0.88, 1.54).[1]

With regard to the Intrusion scale of the Impact of Event Scale, the primary outcome measure, it is true that psychodynamic psychotherapy was not superior to waiting list, both at posttest and at three-month

---

[1] Effect sizes assessed by Falk Leichsenring and Simone Salzer.

follow-up. Intrusion is one of the core symptoms of PTSD. Pre-post differences of psychodynamic psychotherapy, however, were significant and the pre-post and pre-follow-up effect sizes were large (0.95 and 1.55, respectively). In contrast, the pre-post effect size for the waiting list was small (0.34). For the CBT condition (trauma desensitization), the pre-post and pre-follow-up effect sizes were 1.66 and 1.43, respectively. Thus, at follow-up psychodynamic psychotherapy achieved a larger effect size than CBT. Although the effect size of CBT tended to decrease at follow-up, it tended to increase for psychodynamic psychotherapy; as will be shown below, this is true for the avoidance scale and the total score of the Impact of Event Scale.[2] For this reason, it is strange that the difference between psychodynamic psychotherapy and the control condition was reported by Brom et al. (1989) to be not significant at follow-up. For intrusion, psychodynamic psychotherapy achieved the lowest score of all conditions at follow-up. These results, however, were not reported by Ehlers et al. (2010). The figure presented by Ehlers et al. (2010, p. 273) included only the pre-post effect sizes, but not the pre-follow-up effect sizes, for which psychodynamic psychotherapy achieved larger effect sizes, as shown above. In a critical review, results of all analyses should be presented, not only the results that support one's own perspective. Furthermore, for general symptoms Brom et al. (1989) wrote that psychodynamic psychotherapy "seems to withstand the comparison [with waiting list] best" (p. 610). Thus, after all, it seems to take (a little bit, i.e., three months!) longer for psychodynamic psychotherapy to achieve its effects, but these effects are at least as large as those of CBT.

Apart from that discussion, further studies of psychodynamic psychotherapy in PTSD are required. Only one RCT of psychodynamic psychotherapy in PTSD is presently available.

Somatic Symptom Disorders

At present, five RCTs of psychodynamic psychotherapy in somatic symptom disorders that fulfill the inclusion criteria are available (Table 1). In the RCT by Guthrie, Creed, Dawson, and Tomenson (1991), patients with irritable bowel syndrome, who had not responded to standard medical

---

[2] Brom et al. (1989) did not report means and standard deviation for the waiting list condition at follow-up, only for posttreatment. For this reason, no effect sizes for follow-up can be calculated.

treatment over the previous six months, were treated with psychodynamic psychotherapy in addition to standard medical treatment. This treatment was compared to standard medical treatment alone. According to the results, psychodynamic psychotherapy was effective in two thirds of the patients. In another RCT, psychodynamic psychotherapy was significantly more effective than routine care, and as effective as medication (paroxetine) in the treatment of severe irritable bowel syndrome (Creed et al., 2003). During the follow-up period, however, psychodynamic psychotherapy, but not paroxetine, was associated with a significant reduction in health care costs compared with treatment as usual. In an RCT by Hamilton et al. (2000) psychodynamic psychotherapy was compared to supportive therapy in the treatment of patients with chronic intractable functional dyspepsia, who had failed to respond to conventional pharmacological treatments. At the end of treatment, psychodynamic psychotherapy was significantly superior to the control condition. The effects were stable in the 12-month follow-up. Monsen and Monsen (2000) compared psychodynamic psychotherapy of 33 sessions with a control condition (no treatment or treatment as usual) in the treatment of patients with chronic pain. Psychodynamic psychotherapy was significantly superior to the control group on measures of pain, psychiatric symptoms, interpersonal problems, and affect consciousness. The results remained stable or even improved in the 12-month follow-up. In a recent study, Sattel et al. (2012) compared PDT with enhanced medical care in patients with multi somatic symptom disorders. At follow-up PDT was superior to enhanced medical care with regard to improvements in patients' physical quality of life.

Abbass, Kisely, and Kroenke (2009) carried out a review and meta-analysis on the effects of psychodynamic psychotherapy in somatic disorders. They included both RCTs and controlled before and after studies. Meta-analysis was possible for 14 studies. It revealed significant effects on physical symptoms, psychiatric symptoms and social adjustment, which were maintained in long- term follow-up. Thus, specific forms of psychodynamic psychotherapy can be recommended for the treatment of somatic symptom disorders.

Bulimia Nervosa

For the treatment of bulimia nervosa, three RCTs of psychodynamic psychotherapy are available (Table 1). Significant and stable improvements in bulimia nervosa after psychodynamic psychotherapy were

demonstrated in the RCTs by Fairburn, Kirk, O'Connor, and Cooper (1986), Garner et al. (1993), and Fairburn et al. (1995). In the primary disorder-specific measures (bulimic episodes, self-induced vomiting), psychodynamic psychotherapy was as effective as CBT (Fairburn et al., 1986, 1995; Garner et al., 1993). Again, however, the studies were not sufficiently powered to detect possible differences (see Table 1 for sample sizes). Apart from this, CBT was superior to psychodynamic psychotherapy in some specific measures of psychopathology (Fairburn et al., 1986). However, in a follow-up (Fairburn et al., 1995) of the Fairburn et al. (1986) study using a longer follow-up period, both forms of therapy proved to be equally effective and were partly superior to a behavioral form of therapy. Accordingly, for a valid evaluation of the efficacy of psychodynamic psychotherapy in bulimia nervosa, longer-term follow-up studies are necessary. In another RCT, psychodynamic psychotherapy was significantly superior to both a nutritional counseling group and CT (Bachar, Latzer, Kreitler, & Berry, 1999). This was true of patients with bulimia nervosa and a mixed sample of patients with bulimia nervosa or anorexia nervosa.

Anorexia Nervosa

For the treatment of anorexia nervosa, however, evidence-based treatments are barely available (Fairburn, 2005). This applies to both psychodynamic psychotherapy and CBT. In an RCT by Gowers, Norton, Halek, and Crisp (1994), psychodynamic psychotherapy combined with four sessions of nutritional advice yielded significant improvements in patients with anorexia nervosa (Table 1). Weight and BMI changes were significantly more improved than in a control condition (treatment as usual). Dare, Eisler, Russell, Treasure, and Dodge (2001) compared psychodynamic psychotherapy with a mean duration of 24.9 sessions to cognitive-analytic therapy, family therapy, and routine treatment in the treatment of anorexia nervosa (Table 1). Psychodynamic psychotherapy yielded significant symptomatic improvements and psychodynamic psychotherapy and family therapy were significantly superior to the routine treatment with regard to weight gain. However, the improvements were modest—several patients were undernourished at the follow-up. Thus, the treatment of anorexia nervosa remains a challenge and more effective treatment models are required.

Binge Eating Disorder

In an RCT by Tasca et al. (2006) a psychodynamic group treatment was as efficacious as CBT and superior to a waiting list condition in binge eating disorder (e.g., days binged, interpersonal problems). For the comparison of psychodynamic psychotherapy with CBT, again the question of statistical power arises ($n_1 = 48$, $n_2 = 47$, $n_3 = 40$).

Several RCTs provide evidence that psychodynamic psychotherapy is efficacious in eating disorders. However, outcome, especially for anorexia nervosa, is not yet satisfactory. This is true for CBT as well. Thus, further studies are required.

Substance-Related Disorders

Woody et al. (1983) and Woody, Luborsky, McLellan, and O'Brien (1990) studied the effects of psychodynamic psychotherapy and CBT, both of which were given in addition to drug counseling, in the treatment of opiate dependence (Table 1). Psychodynamic psychotherapy plus drug counseling yielded significant improvements on measures of drug-related symptoms and general psychiatric symptoms. At a seven-month follow-up, psychodynamic psychotherapy and CBT, plus drug counseling, were equally effective, and both conditions were superior to drug counseling alone. In another RCT, psychodynamic psychotherapy of 26 sessions given in addition to drug counseling was also superior to drug counseling alone in the treatment of opiate dependence (Woody, McLellan, Luborsky, & O'Brien, 1995). At a six-month follow-up, most of the gains made by the patients who had received psychodynamic therapy remained. In an RCT conducted by Crits-Christoph et al. (1999, 2001), psychodynamic psychotherapy of up to 36 individual sessions was combined with 24 sessions of group drug counseling in the treatment of cocaine dependence. The combined treatment yielded significant improvements and was as effective as CBT, which was combined with group drug counseling as well. However, both CBT and psychodynamic psychotherapy plus group drug counseling were not more effective than group drug counseling alone. Furthermore, individual drug counseling was significantly superior to both forms of therapy concerning measures of drug abuse. With regard to psychological and social outcome variables, all treatments were equally effective (Crits-Christoph et al., 1999, 2001). In an RCT by Sandahl, Herlitz, Ahlin, and Rönnberg (1998), psychodynamic psychotherapy and CBT were compared concerning their efficacy in the

treatment of alcohol abuse. Psychodynamic psychotherapy yielded significant improvements on measures of alcohol abuse, which were stable at a 15-month follow-up. Psychodynamic psychotherapy was significantly superior to CBT in the number of abstinent days and in the improvement of general psychiatric symptoms.

Borderline Personality Disorder

At present, seven RCTs are available for psychodynamic psychotherapy in borderline personality disorder (Munroe-Blum & Marziali, 1995; Bateman & Fonagy, 1999, 2009; Giesen-Bloo et al., 2006; Clarkin, Levy, Lenzenweger, & Kernberg, 2007; Gregory et al., 2008; Doering et al., 2010). Of these studies, several RCTs showed that psychodynamic psychotherapy was superior to Treatment As Usual (Bateman & Fonagy, 1999; Gregory et al., 2008; Doering et al., 2010). Bateman and Fonagy (1999, 2001) studied psychoanalytically oriented partial hospitalization treatment for patients with borderline personality disorder. The major difference between the treatment group and the control group was the provision of individual and group psychotherapy in the former. The treatment lasted a maximum of 18 months. Psychodynamic psychotherapy was significantly superior to standard psychiatric care, both at the end of therapy and at the 18-month follow-up. In a recent RCT, Transference-Focused Psychotherapy (TFP) based on Kernberg's model (Clarkin, Yeomans, & Kernberg, 1999) was compared to a treatment carried out by experienced community psychotherapists in borderline outpatients (Doering et al., 2010). TFP was superior with regard to borderline psychopathology, psychosocial functioning, personality organization, inpatient admission, and dropouts. Another RCT compared psychodynamic psychotherapy ("dynamic deconstructive psychotherapy") with TAU in the treatment of patients with BPD and co-occurring alcohol use disorder (Gregory et al., 2008). In this study, psychodynamic psychotherapy, but not TAU, achieved significant improvements in outcome measures of parasuicide, alcohol misuse, and institutional care (Gregory et al., 2008). Furthermore, psychodynamic psychotherapy was superior with regard to improvements in borderline psychopathology, depression, and social support. No difference was found in dissociation. This was true although TAU participants received higher average treatment intensity. Another recent RCT found mentalization-based treatment (MBT) to be superior to manual-driven structured clinical management with regard to the primary (suicidal and

self-injurious behaviors, hospitalization) and secondary outcome measures (e.g., depression, general symptom distress, interpersonal functioning [Bateman & Fonagy, 2009]).

With regard to the comparison of psychodynamic psychotherapy to specific forms of psychotherapy, one RCT reported psychodynamic psychotherapy as equally effective as an interpersonal group therapy (Munroe-Blum & Marziali, 1995). Psychodynamic psychotherapy yielded significant improvements on measures of borderline-related symptoms, general psychiatric symptoms and depression, and was as effective as an interpersonal group therapy. Power, however, may have been insufficient to detect differences between treatments ($n_1 = 22$, $n_2 = 26$). Giesen-Bloo et al. (2006) compared psychodynamic psychotherapy (transference-focused psychotherapy [TFP]) with schema-focused therapy (SFT), a form of CBT. Treatment duration was three years with two sessions a week. The authors reported statistically and clinically significant improvements for both treatments. However, SFT was found to be superior to TFP in several outcome measures. Furthermore, a significantly higher dropout risk for TFP was reported. This study, however, has serious methodological flaws. The authors used scales for adherence and competence for both treatments, for which they adopted an identical cut-off score of 60 indicating competent application. According to the data published by the authors (p. 651), the median competence level for applying SFT methods was 85.67. For TFP, a value of 65.6 was reported. Although the competence level for SFT clearly exceeded the cut-off, the competence level for TFP just surpassed it. Furthermore, the competence level for SFT is clearly higher than that for TFP. Accordingly, both treatments were not equally applied in terms of therapist competence. Thus, the results of that study are questionable. The difference in competence was not taken into account by the authors, neither with regard to the analysis of resulting data nor in the discussion of the results. Thus, this study raises serious concerns about an investigator allegiance effect (Luborsky et al., 1999). Another RCT compared psychodynamic psychotherapy (TFP), Dialectical Behavior Therapy (DBT), and psychodynamic supportive psychotherapy (Clarkin et al., 2007). Patients treated with all three modalities showed general improvement in the study. However, TFP was shown to produce improvements not demonstrated by either DBT or supportive therapy. Those participants who received TFP were more likely to move from an insecure attachment classification to a secure one. They also showed significantly greater changes in mentalizing capacity and narrative

coherence compared to the other two groups. TFP was associated with significant improvement in 10 of the 12 variables across the six symptomatic domains, compared to six in supportive therapy and five for DBT. Only TFP made significant changes in impulsivity, irritability, verbal assault, and direct assault. TFP and DBT reduced suicidality to the same extent. Here as well, power may have been insufficient to detect further possible differences ($n_1 = 23$, $n_2 = 17$, $n_3 = 22$).

In sum, there is clear evidence that specific forms of manual-guided psychodynamic psychotherapy are efficacious in borderline personality disorder (Leichsenring, Leibing, Kruse, New, & Leweke, 2011). For TFP and MBT, two RCTs carried out in independent research settings provide evidence that both MBT and TFP are efficacious and specific treatments of BPD, according to the criteria of empirically supported treatments proposed by Chambless and Hollon (1998). Studies of both psychotherapy and pharmacotherapy in BPD were recently reviewed by Leichsenring, Leibing, et al. (2011). For active forms of psychotherapy, including MBT, TFP, DBT, and schema-focused therapy (SFT), there is no evidence that one form of psychotherapy is superior to another (Leichsenring, Leibing, et al., 2011).

Cluster C Personality Disorders

There is also evidence for the efficacy of psychodynamic psychotherapy in the treatment of Cluster C personality disorders (i.e., avoidant, compulsive or dependent personality disorder). In an RCT conducted by Svartberg, Stiles, and Seltzer (2004), psychodynamic psychotherapy of 40 sessions in length was compared to CBT (Table 1). Both psychodynamic psychotherapy and CBT yielded significant improvements in patients with DSM-IV Cluster C personality disorders. The improvements refer to symptoms, interpersonal problems, and core personality pathology. The results were stable at 24 months follow-up. No significant differences were found between psychodynamic psychotherapy and CBT with regard to efficacy. However, this study was also not sufficiently powered to detect possible differences ($n_1 = 25$, $n_2 = 25$). Muran, Safran, Samstag, and Winston (2005) compared the efficacy of psychodynamic therapy, brief relational therapy, and CBT in the treatment of Cluster C personality disorders and personality disorders not otherwise specified. Treatments lasted for 30 sessions. With regard to mean changes in outcome measures, no significant differences were found between the treatment conditions, neither

at termination nor at follow-up. Furthermore, there were no significant differences between the treatments with regard to the patients achieving clinically significant change in symptoms, interpersonal problems, features of personality disorders, or therapist ratings of target complaints. At termination, CBT and brief relational therapy were superior to psychodynamic psychotherapy in one outcome measure (patient ratings of target complaints). However, this difference did not persist at follow-up. With regard to the percentage of patients showing change, no significant differences were found, either at termination or at the follow-up, except in one comparison: At termination, CBT was superior to psychodynamic psychotherapy on the Inventory of Interpersonal Problems (Horowitz, Alden, Wiggins, & Pincus, 2000). Again, this difference did not persist at the follow-up. The conclusion is that only a few significant differences were found between the treatments but these differences did not persist at follow-up.

Avoidant Personality Disorder

Avoidant personality disorder (AVPD) is among the above mentioned Cluster C personality disorders. In a recent RCT, Emmelkamp et al. (2006) compared CBT to psychodynamic psychotherapy and a waitlist condition in the treatment of AVPD. The authors reported CBT as more effective than waiting-list control and psychodynamic psychotherapy. However, the study suffers from several methodological shortcomings (Leichsenring & Leibing, 2007). In contrast to CBT, for example, no disorder-specific manual was used for PDT. Some outcome measures applied by Emmelkamp et al. (2006) were specifically tailored to effects for CBT (e.g., to beliefs). Furthermore an arbitrary level of significance ($p = 0.10$) was set by the authors so that a usually not significant difference ($p = 0.09$) achieved significance in favor of CBT. At follow-up, no differences between CBT and PDT were found in primary outcome measures. In addition, Emmelkamp et al. reported that PDT was not superior to the waiting list group. This was true, but may be attributed to the small sample size and low power of the study. Furthermore, CBT was superior to the waiting list group in only two of six measures (Leichsenring & Leibing, 2007). Thus, design, statistical analyses and reporting of results raise serious concerns about an investigator allegiance effect (Luborsky et al., 1999).

Heterogeneous Samples of Patients with Personality Disorders

Winston et al. (1994) compared psychodynamic psychotherapy with brief adaptive psychotherapy or waiting list patients in a heterogeneous group of patients with personality disorders. Most of the patients showed a Cluster C personality disorder. Patients with paranoid, schizoid, schizotypal, borderline, narcissistic personality disorders were excluded. Mean treatment duration was 40 weeks. In both treatment groups, patients showed significantly more improvements than the patients on the waiting list. No differences in outcome were found between the two forms of psychotherapy. Hellerstein et al. (1998) compared psychodynamic psychotherapy to brief supportive therapy in a heterogeneous sample of patients with personality disorders. Again, most of the patients showed a Cluster C personality disorder. The authors reported similar degrees of improvement both at termination and at six-month follow-up. However, the studies by Winston et al. (1994) and Hellerstein et al. (1998) were not sufficiently powered to detect possible differences (see Table 1 for sample sizes). Abbass, Sheldon, Gyra, and Kalpin (2008) compared psychodynamic psychotherapy (intensive short-term dynamic psychotherapy [ISTDP]) with a minimal contact group in a heterogeneous group of patients with personality disorders. The most common Axis II diagnoses were borderline (44%), obsessive compulsive (37%) and avoidant personality disorder (33%). Average treatment duration was 27.7 sessions. Psychodynamic psychotherapy was significantly superior to the control condition in all primary outcome measures. When control patients were treated, they experienced benefits similar to the initial treatment group. In the long-term follow-up, two years after the end of treatment, the whole group maintained their gains and had an 83% reduction of personality disorder diagnoses. In addition, treatment costs were thrice offset by reductions in medication and disability payments. This preliminary study of ISTDP suggests it is efficacious and cost-effective in the treatment of personality disorders.

At present, two meta-analyses on the effects of psychodynamic psychotherapy in personality disorders are available (Leichsenring & Leibing, 2003; Town, Abbass, & Hardy, 2011). A meta-analysis addressing the effects of psychodynamic psychotherapy and CBT in personality disorders reported that psychodynamic psychotherapy yielded large effects sizes not only for comorbid symptoms, but also for core personality pathology (Leichsenring & Leibing, 2003). This was true especially for BPD. A more

recent meta-analysis by Town et al. (2011) included seven RCTs on short-term psychodynamic psychotherapy in personality disorders. The authors drew the preliminary conclusion that psychodynamic psychotherapy may be considered an efficacious empirically supported treatment option for a wide range of personality disorders, producing significant and medium to long-term improvements for a large percentage of patients.

Complex Mental Disorders

The majority of available RCTs addressing the efficacy of psychodynamic psychotherapy are focusing on short-term treatments. Evidence, however, demonstrates that short-term treatments are not sufficiently helpful for a considerable proportion of patients with more complex mental disorders, such as personality disorders or other chronic mental disorders (Kopta, Howard, Lowry, & Beutler, 1994). Some studies suggest that longer-term psychotherapy may be helpful for these patients (Linehan, Tutek, Heard, & Armstrong, 1994; Bateman & Fonagy, 1999; Linehan et al., 2006; Clarkin et al., 2007). A meta-analysis of long-term psychodynamic psychotherapy (LTPP) included 11 randomized controlled trials and 12 observational studies (Leichsenring & Rabung, 2008). According to the results, LTPP (defined as lasting at least one year or 50 sessions) yielded large and stable effects in patients with complex mental disorders (defined as personality disorders, multiple mental disorders, and chronic mental disorders). For overall outcome, the effect sizes even increased significantly between termination of treatment and follow-up. The comparison of RCTs vs. observational studies revealed no significant differences in outcome, suggesting that the outcome data of the RCTs included in this meta-analysis were representative for clinical practice. On the other hand, the results also showed that the data of the observational studies did not systematically over- or underestimate the effects of LTPP. When LTPP was compared to other methods of psychotherapy that were predominantly less intensive or shorter-term, it proved to be significantly superior with regard to overall outcome, target problems, and personality functioning. This meta-analysis was critically discussed by CBT researchers (Bhar et al., 2010). In a detailed response, the authors of that meta-analysis addressed the critique (Leichsenring & Rabung, 2011a). In order to consider some of the critiques of the 2008 meta-analysis (Leichsenring & Rabung, 2008), an update of that meta-analysis was carried out (Leichsenring & Rabung, 2011b). In this update, only controlled studies were included and only between-group effect

sizes were reported. Furthermore, only active treatments were permitted as control conditions. The updated meta-analysis corroborated the results of the 2008 meta-analysis (Leichsenring & Rabung, 2008). LTPP was superior to shorter forms of interventions in complex mental disorders (Leichsenring & Rabung, 2011b). However, it seems to be hard for representatives of other therapeutic approaches to accept this result. In an attempt to test whether the results of the above mentioned meta-analyses on LTPP can be replicated, Smit et al. (2012) reported that they could not confirm the results. The meta-analysis by Smit et al., however, used inclusion criteria that deviated from that of the previous meta-analyses on LTPP (Leichsenring & Rabung, 2008). As a result, they in fact compared LTPP to other forms of long-term psychotherapy (Leichsenring, Abbass, Luyten, Hilsenroth, & Rabung, 2012). Smit et al. (2012) did not find significant differences in efficacy between LTPP and other forms of long-term psychotherapy. This result, however, does not contradict the results of the previous meta-analyses (Leichsenring & Rabung, 2008, 2011b), which compared LTPP to shorter forms of therapy. In addition, the meta-analysis by Smit et al. (2012) showed severe methodological flaws. Some of the studies included by Smit et al., for example, do not fulfill the inclusion criteria used by the authors themselves (Leichsenring et al., 2012). In addition, two studies included by Smit et al. (2012) as representing LTPP did not, in fact, examine (long-term) psychodynamic psychotherapy (Leichsenring et al., 2012). Furthermore, the meta-analysis by Smit et al. (2012) is characterized by several additional methodological flaws—for a detailed review see Leichsenring et al. (2012). In sum, the meta-analysis by Smit et al. (2012) seems to be highly biased against psychodynamic psychotherapy. Nevertheless, further studies are required to allow for more refined analyses addressing the effects of LTPP in specific complex disorders, including comparisons to other specific forms of therapies.

Meta-analytic Results for Psychodynamic Psychotherapy across Mental Disorders

In a meta-analysis of psychodynamic psychotherapy across mental disorders we found psychodynamic psychotherapy was superior to wait list or treatment as usual, and it was equally effective to other psychotherapies (Leichsenring, Rabung, & Leibing, 2004). We found large effect

sizes for psychodynamic psychotherapy in target problems, general psychiatric problems, and social functioning. These effects were stable at follow-up and tended to increase. This meta-analysis was criticized by some CBT proponents as well (Bhar & Beck, 2009) We have responded to this critique showing that it is not supported by any data (Leichsenring, Salzer, et al., 2011). In addition, this critique itself suffered from serious methodological shortcomings. Tolin (2010) presented a meta-analysis that addressed the efficacy of cognitive behavior therapy compared to other forms of psychotherapy. He reported CBT to be superior to psychodynamic psychotherapy. This meta-analysis, however, suffers from several methodological shortcomings.

- Some recent meta-analyses did not find superiority of CBT to other forms of psychotherapy, including psychodynamic psychotherapy (e.g., Leichsenring et al., 2004; Cuijpers et al., 2008). Tolin (2010) did not mention these results. Tolin should have discussed why his results clearly deviated from that of these previous meta-analyses. One reason could be that only high quality studies were included in those meta-analyses that did not find CBT to be superior to other forms of psychotherapy (Leichsenring et al., 2004).
- Several RCT's of psychodynamic psychotherapy were not included, e.g., the studies by Garner et al. (1993), Crits-Christoph et al. (1999, 2001), Dare et al. (2001), Muran et al. (2005), Clarkin et al. (2007), Milrod et al. (2007), and Leichsenring et al. (2009). It is not clear why the author did not include these studies. Thus, it is questionable whether the results are representative of the available studies of psychodynamic psychotherapy.
- Contrary to Tolin's (2010) own intention to only include bona fide treatments, this meta-analysis included studies in which the non-CBT comparison conditions represented "intent to fail" conditions (i.e., poorly implemented conditions over which the favored therapy is intended to prevail), e.g., the study by Durham et al. (1994) comparing CBT with short term psychodynamic psychotherapy. From a methodological point of view, studies like this represent an "isolated evaluation" described by Scriven (1991) as not a "comparative evaluation." As Tolin correctly points out (p. 711) "intent to fail" conditions (isolated evaluations) only control for the common or unspecific treatment effects.

- For post-therapy data, the superiority of CBT over alternative treatments corresponded only to small between-group effects sizes of d = 0.22 (Table 3, p. 715). For the comparison of CBT and PDT, Tolin (2010) reported a d of 0.28. It is not clear what the clinical significance of these small differences is. For different areas of outcome, all the differences in favor of CBT (Table 5, p. 716) were small (0.11–0.27).
- According to Tolin's own analysis, most of the results in favor of CBT compared to psychodynamic psychotherapy were not robust against file drawer effects (p. 713).[3] This is true for all post-therapy comparisons and one-year follow-up comparisons. Only for the six-month comparisons were the results robust (p. 715).
- In presenting and discussing the results the author did not take into account the small effect sizes in favor of CBT and the fact that only some of the results were robust against file drawer effects.
- Tolin attempted to take investigator allegiance effects into account. However, the procedures applied are not convincing.
  ○ It is not clear whether the data that he received about the investigator allegiance are representative of the studies he included.
  ○ The author asked the principal investigators to self-rate their investigator allegiance. It is unclear whether this self-rated assessment is reliable and valid. Self-ratings of investigator allegiance can be expected to be biased.
  ○ For this reason the results based on this self-report measure are questionable. Thus, an effect of the investigator allegiance on the results cannot really be ruled out by the procedures applied by the author.
  ○ The author did find a significant correlation between outcome effect sizes and the principal investigators' investigator allegiance rating (for the therapists and the research team, the correlations were not significant).
  ○ The author used the investigator allegiance self-ratings as covariates in a regression analysis and found the effect sizes unchanged. However, the effects of the therapist and team allegiance self-ratings may conceal the effects of the investigator allegiance. It would be interesting to see the effect sizes if only the principal

---

[3] File drawer effect: unpublished studies that may change the results of a meta-analysis.

investigators' allegiance is controlled for. Tolin did not present these results.

- The methodological quality of studies was rated using criteria proposed by Jadad et al. (1996) and by Foa and Meadows (1997). However, the author did not report who rated the methodological quality. Were the raters trained? Was the reliability of the ratings assessed? What was the reliability of the ratings? In addition, it would be interesting to see the quality ratings for studies comparing CBT with interpersonal therapy, psychodynamic psychotherapy, supportive therapy, and others separately. Were there significant differences, for example, between studies comparing CBT with interpersonal therapy, compared to studies comparing CBT with psychodynamic psychotherapy?

- Tolin (2010) assessed the relative efficacy of CBT for several conditions, i.e., for different mental disorders (Table 4 in his article). Why did he carry out statistical analysis lumping depressive and anxiety disorders together? Thus, it is unclear if these results refer to depressive disorders, to anxiety disorders, or to both of them. In Table 4, results for anxiety and depressive disorders are listed separately. As stated by Tolin (p. 715), these results are not robust against file drawer effects.

- With regard to the statistical analysis carried out by Tolin, several issues may be critically discussed.
  ○ Tolin transformed results of dichotomous variables into odds ratios, which he converted into Cohen's d. Which procedures were applied here (formulas for converting)?
  ○ As a measure of effect size, the author calculated Cohen's d statistic. Apparently, the results presented in Tables 3, 4, and 5 in his article represent Cohen's d. Thus, these effect sizes seem to be not based on the random effects model. What are the results if the effect sizes are based on the random effects model? They can be expected to deviate from Cohen's d.
  ○ It is not clear how Tolin carried out tests of significance for Cohen's d. Do the tests of significance reported refer to Cohen's d, or to effect sizes assessed by the random effects model?
  ○ Tolin carried out a number of tests of significance. Did he adjust for type I error inflation, or did they carry out power analysis according to the procedures described, for example, by Cohen? Some of the significant results may be due to chance. What is the statistical power of the results the author reported?

○ Tolin assessed the heterogeneity by use of the Q-statistic. In addition to Q, the author should have calculated the I^2 statistic (Huedo-Medina, Sanchez-Meca, Marin-Martinez, & Botella, 2006).[4]

To sum up, this meta-analysis is affected by several methodological flaws making the results questionable. The shortcomings described above raise serious questions of an investigator allegiance effect. A serious bias in favor of CBT cannot be ruled out.

In a recent review, Shedler (2010) came to the conclusion that effect sizes of PDT are as large as those reported for other forms of psychotherapy that are regarded as "empirically supported." In addition, he found that effects of PDT were stable or tended to improve after the end of treatment.

In a quality-based review of randomized controlled trials, Gerber et al. (2011) found PDT to be at least as efficacious as another active treatment in 34 of 39 studies (87%). In comparison, with inactive conditions, PDT was superior in 18 of 24 adequate comparisons (75%).

In another quality-based review of randomized controlled trials, Thoma et al. (2012) examined the methodological quality of RCTs of CBT in depression. Contrary to their expectation, the authors found no significant differences in methodological quality between RCTs of CBT in depression and RCTs of PDT. Taking the frequently put forward criticism of the methodological quality of studies of PDT into account (e.g., Bhar et al., 2010), the result reported by Thoma et al. (2012) is of some importance. In another context, we showed that often double standards were applied when studies of PDT were criticized by representatives of other approaches (Leichsenring & Rabung, 2011a).

Discussion

Under the requirements of the criteria proposed by the Task Force modified by Chambless and Hollon (1998), several RCTs are presently available

---

[4] The Q statistic is defined as the sum of the squared deviations of each study's effect estimate, weighting the contribution of each by its inverse variance. The Q statistic follows a chi-square distribution. The I^2 statistic indicates the extent of true heterogeneity, dividing the difference between the result of the Q test and its degrees of freedom by the Q value itself and multiplying it by 100.

that provide evidence for the efficacy of psychodynamic psychotherapy in specific mental disorders. There is evidence for the efficacy of PDT in depressive disorders, prolonged or complicated grief, anxiety disorders, posttraumatic stress disorder, eating disorders, somatic symptom disorders, substance related disorders, and personality disorders, including both less severe (Cluster C) and severe personality disorders (borderline personality disorder). For posttraumatic stress disorder, only one RCT exists (Brom et al., 1989). Thus, we urgently need further studies showing that PDT is effective in complex posttraumatic stress disorders, i.e., in patients suffering from childhood abuse. With regard to personality disorders, no RCTs exist for Cluster A personality disorders (e.g., paranoid, schizoid) and for some relevant Cluster B personality disorders (e.g., narcissistic). This is true, however, for CBT as well. In addition further RCTs of long-term psychodynamic psychotherapy, especially in complex mental disorders, are required.

In the studies reviewed here, psychodynamic psychotherapy was either more effective than placebo therapy, supportive therapy, or treatment as-usual, or no differences between psychodynamic psychotherapy and CBT, or between psychodynamic psychotherapy and pharmacotherapy, were found. These results are consistent with one of our meta-analyses of psychodynamic psychotherapy cited above (Leichsenring et al., 2004).

In a few studies, psychodynamic psychotherapy was superior to a method of CBT (Milrod et al., 2007); in another study psychodynamic psychotherapy was superior to CBT in some outcome measures (Clarkin et al., 2007). However, most of the studies that found no differences in efficacy between psychodynamic psychotherapy and another bona fide treatment were not sufficiently powered. As reported above, testing for non-inferiority (i.e., equivalence) requires $n_1 = n_2 = 86$ patients to detect an at least medium differences (effect size $d = 0.5$) between two treatments with a sufficient power ($\alpha = 0.05$, two tailed test, $1\text{-}\beta = 0.90$; Cohen, 1988). At present, only three RCT comparing psychodynamic psychotherapy with a bona fide treatment fulfill this criterion (Crits-Christoph et al., 1999; Knekt, Lindfors, Harkanen, et al., 2008; Leichsenring et al., 2013). The issue of small sample size studies, however, is not specific to studies of psychodynamic psychotherapy, since many studies of CBT are also not sufficiently powered (Leichsenring & Rabung, 2011a).

For comparisons of psychodynamic psychotherapy with bona fide therapies, the between-group effect sizes were found to be small (Leichsenring et al., 2004; Leichsenring, Salzer, et al., 2011, 2013). Thus, it is an open question of research whether more highly powered studies would find significant differences. Furthermore, the question has to be addressed whether these (possibly small) differences are clinically relevant or significant (Jacobson & Truax, 1991).

It is important, however, to realize which mental disorders lack any RCTs of psychodynamic psychotherapy. This is true, for example, for dissociative disorders and for some specific forms of personality disorders (e.g., narcissistic). For PTSD, only one RCT is presently available (Brom et al., 1989).

Some studies reported differences, at least in some measures, in favor of CBT. This is true, for example, for the studies on bulimia nervosa by Fairburn et al. (1986) and Garner et al. (1993), and for the studies on generalized anxiety disorder (Leichsenring et al., 2009) and social phobia (Leichsenring, Salzer, et al., 2013). For the study on generalized anxiety disorder (Leichsenring et al., 2009), we discussed above whether a stronger focus on the process of worrying would possibly improve the results of psychodynamic psychotherapy. In general, more research should address the question whether the efficacy of psychodynamic psychotherapy can be improved by putting a stronger focus on the specific mechanisms that maintain the psychopathology of the respective disorder. Mentalization-based therapy (MBT) or TFP may serve as good examples for psychodynamic treatments that focus on the assumed processes or deficits maintaining a disorder.

According to the results of this review, further research of psychodynamic psychotherapy in specific mental disorders is necessary, including studies of both the outcome and the active ingredients of psychodynamic psychotherapy in these disorders. Not only measures on symptoms and DSM criteria of a disorder should be applied, but also measures more specific to psychodynamic psychotherapy. Future studies should also examine if there are specific gains achieved only by psychodynamic psychotherapy, i.e., the question of "added value." Furthermore, those methods of therapy that have proved to work under experimental conditions of RCTs need to be studied for their effectiveness in the field (effectiveness studies). The perception that PDT lacks empirical support is not consistent with available empirical evidence and may reflect selective dissemination of research findings (Shedler, 2010).

REFERENCES

Abbass, A., & Driessen, E. (2010). The efficacy of short-term psychodynamic psychotherapy for depression: A summary of recent findings. *Acta Psychiatrica Scandinavica*, *121*(5), 398–399.

Abbass, A., Kisely, S., & Kroenke, K. (2009). Short-term psychodynamic psychotherapy for somatic disorders. Systematic review and meta-analysis of clinical trials. *Psychotherapy & Psychosomatics*, *78*(5), 265–274.

Abbass, A., Sheldon, A., Gyra, J., & Kalpin, A. (2008). Intensive short-term dynamic psychotherapy for DSM-IV personality disorders: A randomized controlled trial. *Journal of Nervous & Mental Diseases*, *196*(3), 211–216.

Baardseth, T, Goldberg, S. B., Pace, B. T., Wislocki, A. P., Frost, N. D., Siddiqui, J. R., ... Wampold, B. E. (2013). Cognitive-behavioral therapy versus other therapies: Redux. *Clinical Psychology Review*, *33*, 395–405.

Bachar, E., Latzer, Y., Kreitler, S., & Berry, E. M. (1999). Empirical comparison of two psychological therapies. Self psychology and cognitive orientation in the treatment of anorexia and bulimia. *Journal of Psychotherapy Practice & Research*, *8*(2), 115–128.

Barber, J. P., Barrett, M. S., Gallop, R., Rynn, M. A., & Rickels, K. (2012). Short-term dynamic psychotherapy versus pharmacotherapy for major depressive disorder: A randomized, placebo-controlled trial. *Journal of Clinical Psychiatry*, *73*(1), 66–73.

Barkham, M., Rees, A., Shapiro, D. A., Stiles, W. B., Agnew, R. M., Halstead, J., ... Harrington, V. M. (1996). Outcomes of time-limited psychotherapy in applied settings: replicating the Second Sheffield Psychotherapy Project. *Journal of Consulting & Clinical Psychology*, *64*(5), 1079–1085.

Bateman, A., & Fonagy, P. (1999). Effectiveness of partial hospitalization in the treatment of borderline personality disorder: a randomized controlled trial. *American Journal of Psychiatry*, *156*(10), 1563–1569.

Bateman, A., & Fonagy, P. (2001). Treatment of borderline personality disorder with psychoanalytically oriented partial hospitalization: An 18-month follow-up. *American Journal of Psychiatry*, *158*(1), 36–42.

Bateman, A., & Fonagy, P. (2009). Randomized controlled trial of outpatient mentalization-based treatment versus structured clinical management for borderline personality disorder. *American Journal of Psychiatry*, *166*(12), 1355–1364.

Benish, S. G., Imel, Z. E., & Wampold, B. E. (2008). The relative efficacy of bona fide psychotherapies for treating post-traumatic stress disorder: A meta-analysis of direct comparisons. *Clinical Psychology Review*, *28*(5), 746–758.

Bhar, S. S., & Beck, A. T. (2009). Treatment integrity of studies that compare short-term psychodynamic psychotherapy with cognitive-behavior therapy. *Clinical Psychology: Science & Practice*, *16*(3), 370–378.

Bhar, S. S., Thombs, B. D., Pignotti, M., Bassel, M., Jewett, L., Coyne, J. C., & Beck, A. T. (2010). Is longer-term psychodynamic psychotherapy more effective than shorter-term therapies? Review and critique of the evidence. *Psychotherapy & Psychosomatics*, *79*(4), 208–216.

Bögels, S. M., Wijts, P., Oort, F. J., & Sallaerts, S. J. (2014). Psychodynamic psychotherapy versus cognitive behavior therapy for social anxiety disorders: An efficacy and partial effectiveness trial. *Depression and Anxiety*. Advance online publication.

Bressi, C., Porcellana, M., Marinaccio, P. M., Nocito, E. P., & Magri, L. (2010). Short-term psychodynamic psychotherapy versus treatment as usual for depressive and anxiety disorders: A randomized clinical trial of efficacy. *Journal of Nervous & Mental Diseases*, *198*(9), 647–652.

Brom, D., Kleber, R. J., & Defares, P. B. (1989). Brief psychotherapy for posttraumatic stress disorders. *Journal of Consulting & Clinical Psychology*, *57*(5), 607–612.

Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. *Journal of Consulting & Clinical Psychology*, *66*(1), 7–18.

Clarkin, J. F., Levy, K. N., Lenzenweger, M. F., & Kernberg, O. F. (2007). Evaluating three treatments for borderline personality disorder: a multiwave study. *American Journal of Psychiatry*, *164*(6), 922–928.

Clarkin, J. F., Yeomans, F. E., & Kernberg, O. F. (1999). *Psychotherapy of borderline-personality*. New York, NY: Wiley.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Creed, F., Fernandes, L., Guthrie, E., Palmer, S., Ratcliffe, J., Read, N., . . . Tomenson, B. (2003). The cost-effectiveness of psychotherapy and paroxetine for severe irritable bowel syndrome. *Gastroenterology*, *124*(2), 303–317.

Crits-Christoph, P., Connolly Gibbons, M. B., Narducci, J., Schamberger, M., & Gallop, R. (2005). Interpersonal problems and the outcome of interpersonally oriented psychodynamic treatment of GAD. *Psychotherapy: Theory, Research, Practice, Training*, *42*, 211–224.

Crits-Christoph, P., Siqueland, L., Blaine, J., Frank, A., Luborsky, L., Onken, L. S., . . . Beck, A. T. (1999). Psychosocial treatments for cocaine dependence: National Institute on Drug Abuse Collaborative Cocaine Treatment Study. *Archives of General Psychiatry*, *56*(6), 493–502.

Crits-Christoph, P., Siqueland, L., McCalmont, E., Weiss, R. D., Gastfriend, D. R., Frank, A., . . . Thase, M. E. (2001). Impact of psychosocial treatments on associated problems of cocaine-dependent patients. *Journal of Consulting & Clinical Psychology*, *69*(5), 825–830.

Crits-Christoph, P., Wolf-Palacio, D., Ficher, M., & Rudick, D. (1995). Brief supportive-expressive psychodynamic therapy for generalized anxiety disorder.

In J. Barber & P. Crits-Christoph (Eds.), *Dynamic therapies for psychiatric disorders (Axis I)* (pp. 43–83). New York, NY: Basic Books.

Cuijpers, P., van Straten, A., Andersson, G., & van Oppen, P. (2008). Psychotherapy for depression in adults: A meta-analysis of comparative outcome studies. *Journal of Consulting & Clinical Psychology*, *76*(6), 909–922.

Dare, C., Eisler, I., Russell, G., Treasure, J., & Dodge, L. (2001). Psychological therapies for adults with anorexia nervosa: Randomised controlled trial of outpatient treatments. *British Journal of Psychiatry*, *178*, 216–221.

Doering, S., Horz, S., Rentrop, M., Fischer-Kern, M., Schuster, P., Benecke, C., . . . Buchheim, P. (2010). Transference-focused psychotherapy v. treatment by community psychotherapists for borderline personality disorder: randomised controlled trial. *Brithish Journal of Psychiatry*, *196*(5), 389–395.

Driessen, E., Cuijpers, P., de Maat, S. C., Abbass, A. A., de Jonghe, F., & Dekker, J. J. (2010). The efficacy of short-term psychodynamic psychotherapy for depression: A meta-analysis. *Clinical Psychology Review*, *30*(1), 25–36.

Durham, R. C., Murphy, T., Allan, T., Richard, K., Treliving, L. R., & Fenton, G. W. (1994). Cognitive therapy, analytic psychotherapy and anxiety management training for generalised anxiety disorder. *British Journal of Psychiatry*, *165*(3), 315–323.

Ehlers, A., Bisson, J., Clark, D. M., Creamer, M., Pilling, S., Richards, D., . . . Yule, W. (2010). Do all psychological treatments really work the same in posttraumatic stress disorder? *Clinical Psychology Review*, *30*(2), 269–276.

Emmelkamp, P. M., Benner, A., Kuipers, A., Feiertag, G. A., Koster, H. C., & van Apeldoorn, F. J. (2006). Comparison of brief dynamic and cognitive-behavioural therapies in avoidant personality disorder. *British Journal of Psychiatry*, *189*, 60–64.

Fairburn, C. G. (2005). Evidence-based treatment of anorexia nervosa. *International Journal of Eating Disorders*, *37*(Suppl.), S26–S30.

Fairburn, C. G., Kirk, J., O'Connor, M., & Cooper, P. J. (1986). A comparison of two psychological treatments for bulimia nervosa. *Behaviour Research & Therapy*, *24*(6), 629–643.

Fairburn, C. G., Norman, P. A., Welch, S. L., O'Connor, M. E., Doll, H. A., & Peveler, R. C. (1995). A prospective study of outcome in bulimia nervosa and the long-term effects of three psychological treatments. *Archives of General Psychiatry*, *52*(4), 304–312.

Foa, E. B., & Meadows, E. A. (1997). Psychosocial treatments for posttraumatic stress disorder: a critical review. *Annual Review of Psychology*, *48*, 449–480.

Fonagy, P., Roth, A., & Higgitt, A. (2005). Psychodynamic psychotherapies: evidence-based practice and clinical wisdom. *Bulletin of the Menninger Clinic*, *69*(1), 1–58.

Gabbard, G. O. (2004). *Long-term psychodynamic psychotherapy*. Washington, DC: American Psychiatric Publishing.

Gallagher-Thompson, D., Hanley-Peterson, P., & Thompson, L. W. (1990). Maintenance of gains versus relapse following brief psychotherapy for depression. *Journal of Consulting & Clinical Psychology*, *58*(3), 371–374.

Gallagher-Thompson, D., & Steffen, A. M. (1994). Comparative effects of cognitive-behavioral and brief psychodynamic psychotherapies for depressed family caregivers. *Journal of Consulting & Clinical Psychology*, *62*(3), 543–549.

Garner, D. M., Rockert, W., Davis, R., Garner, M. V., Olmsted, M. P., & Eagle, M. (1993). Comparison of cognitive-behavioral and supportive-expressive therapy for bulimia nervosa. *American Journal of Psychiatry*, *150*(1), 37–46.

Gerber, A. J., Kocsis, J. H., Milrod, B. L., Roose, S. P., Barber, J. P., Thase, M. E., . . . Leon, A. C. (2011). A quality-based review of randomized controlled trials of psychodynamic psychotherapy. *American Journal of Psychiatry*, *168*(1), 19–28.

Giesen-Bloo, J., van Dyck, R., Spinhoven, P., van Tilburg, W., Dirksen, C., van Asselt, T., . . . Arntz, A. (2006). Outpatient psychotherapy for borderline personality disorder: Randomized trial of schema-focused therapy vs. transference-focused psychotherapy. *Archives of General Psychiatry*, *63*(6), 649–658.

Gowers, S., Norton, K., Halek, C., & Crisp, A. H. (1994). Outcome of outpatient psychotherapy in a random allocation treatment study of anorexia nervosa. *International Journal of Eating Disorders*, *15*(2), 165–177.

Gregory, R. J., Chlebowski, S., Kang, D., Remen, A. L., Soderberg, M. G., Stepkovitch, J., & Virk, S. (2008). A controlled trial of psychodynamic psychotherapy for co-occurring borderline personality disorder and alcohol use disorder. *Psychotherapy: Theory, Research, Practice, Training*, *45*(1), 28–41.

Gunderson, J. G., & Gabbard, G. O. (1999). Making the case for psychoanalytic therapies in the current psychiatric environment. *Journal of the American Psychoanalytic Association*, *47*(3), 679–704.

Guthrie, E., Creed, F., Dawson, D., & Tomenson, B. (1991). A controlled trial of psychological treatment for the irritable bowel syndrome. *Gastroenterology*, *100*(2), 450–457.

Hamilton, J., Guthrie, E., Creed, F., Thompson, D., Tomenson, B., Bennett, R., . . . Liston, R. (2000). A randomized controlled trial of psychotherapy in patients with chronic functional dyspepsia. *Gastroenterology*, *119*(3), 661–669.

Hellerstein, D. J., Rosenthal, R. N., Pinsker, H., Samstag, L. W., Muran, J. C., & Winston, A. (1998). A randomized prospective study comparing supportive and dynamic therapies: Outcome and alliance. *Journal of Psychotherapy Practice & Research*, *7*(4), 261–271.

Horowitz, L. M., Alden, L. E., Wiggins, J. S., & Pincus, A. L. (2000). *Inventory of Interpersonal Problems: Manual*. Odessa, FL: Psychological Corp.

Huedo-Medina, T. B., Sanchez-Meca, J., Marin-Martinez, F., & Botella, J. (2006). Assessing heterogeneity in meta-analysis: Q statistic or I2 index? *Psychological Methods*, *11*(2), 193–206.

Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting & Clinical Psychology*, *59*(1), 12–19.

Jadad, A. R., Moore, R. A., Carroll, D., Jenkinson, C., Reynolds, D. J., Gavaghan, D. J., & McQuay, H. J. (1996). Assessing the quality of reports of randomized clinical trials: Is blinding necessary? *Controlled Clinical Trials*, *17*(1), 1–12.

Johansson, R., Ekbladh, S., Hebert, A., Lindstrom, M., Moller, S., Petitt, E., … Andersson, G. (2012). Psychodynamic guided self-help for adult depression through the Internet: A randomised controlled trial. *PLoS One*, e38021.

Kernberg, O. F. (1996). A psychoanalytic model for the classification of personality disorders. In M. Achenheil, B. Bondy, R. Engel, M. Ermann, & N. Nedopil (Eds.), *Implications of psychopharmacology to psychiatry* (pp. 66–78). New York, NY: Springer.

Knekt, P., Lindfors, O., Harkanen, T., Valikoski, M., Virtala, E., Laaksonen, M. A., … Renlund, C. (2008). Randomized trial on the effectiveness of long- and short-term psychodynamic psychotherapy and solution-focused therapy on psychiatric symptoms during a 3-year follow-up. *Psychological Medicine*, *38*(5), 689–703.

Knekt, P., Lindfors, O., Laaksonen, M. A., Raitasalo, R., Haaramo, P., & Jarvikoski, A. (2008). Effectiveness of short-term and long-term psychotherapy on work ability and functional capacity: A randomized clinical trial on depressive and anxiety disorders. *Journal of Affective Disorders*, *107*(1–3), 95–106.

Knijnik, D. Z., Kapczinski, F., Chachamovich, E., Margis, R., & Eizirik, C. L. (2004). Psicoterapia psicodinâmica em grupo para fobia social generalizada [Psychodynamic group treatment for generalized social phobia]. *Revista Brasileira de Psiquiatria*, *26*(2), 77–81.

Kopta, S. M., Howard, K. I., Lowry, J. L., & Beutler, L. E. (1994). Patterns of symptomatic recovery in psychotherapy. *Journal of Consulting & Clinical Psychology*, *62*(5), 1009–1016.

Leichsenring, F. (2001). Comparative effects of short-term psychodynamic psychotherapy and cognitive-behavioral therapy in depression: A meta-analytic approach. *Clinical Psychology Review*, *21*(3), 401–419.

Leichsenring, F. (2004). Randomized controlled versus naturalistic studies: A new research agenda. *Bulletin of the Menninger Clinic*, *68*(2), 137–151.

Leichsenring, F. (2005). Are psychodynamic and psychoanalytic therapies effective?: A review of empirical data. *International Journal of Psychoanalysis*, *86*(3), 841–868.

Leichsenring, F., Abbass, A., Luyten, P., Hilsenroth, P., & Rabung, S. (2012). *The emerging evidence for long-term psychodynamic therapy*. Unpublished manuscript.

Leichsenring, F., & Leibing, E. (2003). The effectiveness of psychodynamic ther-
apy and cognitive behavior therapy in the treatment of personality disorders:
A meta-analysis. *American Journal of Psychiatry*, *160*(7), 1223–1232.

Leichsenring, F., & Leibing, E. (2007). Cognitive-behavioural therapy for avoidant
personality disorder. *British Journal of Psychiatry*, *190*, 80.

Leichsenring, F., Leibing, E., Kruse, J., New, A., & Leweke, F. (2011). Borderline
personality disorder. *Lancet*, *377*(9759), 74–84.

Leichsenring, F., & Rabung, S. (2008). Effectiveness of long-term psychodynamic
psychotherapy: A meta-analysis. *Journal of the American Medical Association*,
300(13), 1551–1565.

Leichsenring, F., & Rabung, S. (2011a). Double standards in psychotherapy re-
search. *Psychotherapy & Psychosomatics*, *80*(1), 48–51.

Leichsenring, F., & Rabung, S. (2011b). Long-term psychodynamic psychotherapy
in complex mental disorders: Update of a meta-analysis. *British Journal of
Psychiatry*, *199*(1), 15–22.

Leichsenring, F., Rabung, S., & Leibing, E. (2004). The efficacy of short-term psy-
chodynamic psychotherapy in specific psychiatric disorders: A meta-analysis.
Archives of General Psychiatry, *61*(12), 1208–1216.

Leichsenring, F., Salzer, S., Hilsenroth, M., Leibing, E., Leweke, F., & Rabung,
S. (2011). Treatment integrity: An unresolved issue in psychotherapy research.
Current Psychiatry Reviews, *7*, 313–321.

Leichsenring, F., Salzer, S., Jaeger, U., Kächele, H., Kreische, R., Leweke, F., . . .
Leibing, E. (2009). Short-term psychodynamic psychotherapy and cognitive-
behavioral therapy in generalized anxiety disorder: A randomized, controlled
trial. *American Journal of Psychiatry*, *166*(8), 875–881.

Leichsenring, F., Salzer, S., Beutel, M. E., Herpertz, S., Hiller, W., Hoyer, J., . . .
Leibing, E. (2013). Psychodynamic therapy and cognitive therapy in social
anxiety disorder : A multicenter randomized controlled trial. *American Journal
of Psychiatry*, *170*(7), 759–767.

Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., Heard,
H. L., . . . Lindenboim, N. (2006). Two-year randomized controlled trial and
follow-up of dialectical behavior therapy vs. therapy by experts for suicidal
behaviors and borderline personality disorder. *Archives of General Psychiatry*,
63(7), 757–766.

Linehan, M. M., Tutek, D. A., Heard, H. L., & Armstrong, H. E. (1994). Inter-
personal outcome of cognitive behavioral treatment for chronically suicidal
borderline patients. *American Journal of Psychiatry*, *151*(12), 1771–1776.

Luborsky, L. (1984). *Principles of psychoanalytic psychotherapy: Manual for
supportive-expressive treatment*. New York, NY: Basic Books.

Luborsky, L., Diguer, L., Seligman, D., Rosenthal, R., Krause, E. D., Johnson, S.,
. . . Schweizer, E. (1999). The researcher's own therapy llegiances: A "wild card"

in comparisons of treatment efficacy. *Clinical Psychology: Science & Practice*, *6*(1), 95–106.

Maina, G., Forner, F., & Bogetto, F. (2005). Randomized controlled trial comparing brief dynamic and supportive therapy with waiting list condition in minor depressive disorders. *Psychother Psychosom*, *74*(1), 43–50.

Malan, D. H. (1976). *Toward the validation of dynamic psychotherapy*. New York, NY: Plenum.

McCallum, M., & Piper, W. E. (1990). A controlled study of effectiveness and patient suitability for short-term group psychotherapy. *International Journal of Group Psychotherapy*, *40*(4), 431–452.

Milrod, B., Leon, A. C., Busch, F., Rudden, M., Schwalberg, M., Clarkin, J., ... Shear, M. K. (2007). A randomized controlled clinical trial of psychoanalytic psychotherapy for panic disorder. *American Journal of Psychiatry*, *164*(2), 265–272.

Monsen, K., & Monsen, T. J. (2000). Chronic pain and psychodynamic body therapy. *Psychotherapy: Theory, Research, Practice, Training*, *37*, 257–269.

Munroe-Blum, H., & Marziali, E. (1995). A controlled trial of short-term group treatment for borderline personality disorder. *Journal of Personality Disorders*, *9*, 190–198.

Muran, J. C., Safran, J. D., Samstag, L. W., & Winston, A. (2005). Evaluating an alliance-focused treatment for personality disorders. *Psychotherapy: Theory, Research, Practice, Training*, *42*, 532–545.

Piper, W. E., McCallum, M., Joyce, A. S., Rosie, J. S., & Ogrodniczuk, J. S. (2001). Patient personality and time-limited group psychotherapy for complicated grief. *International Journal of Group Psychotherapy*, *51*(4), 525–552.

Roth, A. D., & Parry, G. (1997). The implications of psychotherapy research for clinical practice and service development: Lessons and limitations. *Journal of Mental Health*, *6*, 367–380.

Rothwell, P. M. (2005). External validity of randomised controlled trials: "To whom do the results of this trial apply?" *Lancet*, *365*(9453), 82–93.

Salminen, J. K., Karlsson, H., Hietala, J., Kajander, J., Aalto, S., Markkula, J., ... Toikka, T. (2008). Short-term psychodynamic psychotherapy and fluoxetine in major depressive disorder: A randomized comparative study. *Psychotherapy & Psychosomatics*, *77*(6), 351–357.

Salzer, S., Winkelbach, C., Leweke, F., Leibing, E., & Leichsenring, F. (2011). Long-term effects of short-term psychodynamic psychotherapy and cognitive-behavioural therapy in generalized anxiety disorder: 12-month follow-up. *Canadian Journal of Psychiatry*, *56*(8), 503–508.

Sandahl, C., Herlitz, K., Ahlin, G., & Rönnberg, S. (1998). Time-limited group psychotherapy for moderately alcohol dependent patients: A randomized controlled clinical trial. *Psychotherapy Research*, *8*, 361–378.

Sattel, H., Lahmann, C., Gundel, H., Guthrie, E., Kruse, J., Noll-Hussong, M., . . . Henningsen, P. (2012). Brief psychodynamic interpersonal psychotherapy for patients with multisomatoform disorder: randomised controlled trial. *British Journal of Psychiatry*, *200*(1), 60–67.

Scriven, M. (1991). *Evaluation thesaurus*. Newbury Park, CA: Sage.

Shapiro, D. A., Barkham, M., Rees, A., Hardy, G. E., Reynolds, S., & Startup, M. (1994). Effects of treatment duration and severity of depression on the effectiveness of cognitive-behavioral and psychodynamic-interpersonal psychotherapy. *Journal of Consulting & Clinical Psychology*, *62*(3), 522–534.

Shapiro, D. A., & Firth, J. A. (1985). *Exploratory therapy manual for the Sheffield Psychotherapy Project* (SAPU Memo 733). Sheffield, UK: University of Sheffield.

Shapiro, D. A., Rees, A., Barkham, M., Hardy, G., Reynolds, S., & Startup, M. (1995). Effects of treatment duration and severity of depression on the maintenance of gains after cognitive-behavioral and psychodynamic-interpersonal psychotherapy. *Journal of Consulting & Clinical Psychology*, *63*(3), 378–387.

Shedler, J. (2010). The efficacy of psychodynamic psychotherapy. *American Psychologist*, *65*(2), 98–109.

Silverberg, F. (2005). *Make the leap: A practical guide to breaking the patterns that hold you back*. New York, NY: Marlowe & Co.

Smit, Y., Huibers, M. J., Ioannidis, J. P., van Dyck, R., van Tilburg, W., & Arntz, A. (2012). The effectiveness of long-term psychoanalytic psychotherapy: A meta-analysis of randomized controlled trials. *Clinical Psychology Review*, *32*(2), 81–92.

Svartberg, M., Stiles, T. C., & Seltzer, M. H. (2004). Randomized, controlled trial of the effectiveness of short-term dynamic psychotherapy and cognitive therapy for cluster C personality disorders. *American Journal of Psychiatry*, *161*(5), 810–817.

Tasca, G. A., Ritchie, K., Conrad, G., Balfour, L., Gayton, J., Lybanon, V., & Bissadac, H. (2006). Attachment scales predict outcome in a randomized controlled trial of two group therapies for binge eating disorder: An aptitude by treatment interaction. *Psychotherapy Research*, *16*(1), 106–121.

Thoma, N. C., McKay, D., Gerber, A. J., Milrod, B. L., Edwards, A. R., & Kocsis, J. H. (2012). A quality-based review of randomized controlled trials of cognitive-behavioral therapy for depression: An assessment and metaregression. *American Journal of Psychiatry*, *169*(1), 22–30.

Thompson, L. W., Gallagher, D., & Breckenridge, J. S. (1987). Comparative effectiveness of psychotherapies for depressed elders. *Journal of Consulting & Clinical Psychology*, *55*(3), 385–390.

Tolin, D. F. (2010). Is cognitive-behavioral therapy more effective than other therapies? A meta-analytic review. *Clinical Psychology Review*, *30*(6), 710–720.

Town, J. M., Abbass, A., & Hardy, G. (2011). Short-term psychodynamic psychotherapy for personality disorders: A critical review of randomized controlled trials. *Journal of Personality Disorders*, *25*, 723–740.

Wallerstein, R. S. (1989). The Psychotherapy Research Project of the Menninger Foundation: An overview. *Journal of Consulting & Clinical Psychology*, *57*(2), 195–205.

Wampold, B. E., Imel, Z. E., Laska, K. M., Benish, S., Miller, S. D., Fluckiger, C., ... Budge, C. (2010). Determining what works in the treatment of PTSD. *Clinical Psychology Review*, *30*(8), 923–933.

Wampold, B. E., Minami, T., Baskin, T. W., & Callen Tierney, S. (2002). A meta-(re)analysis of the effects of cognitive therapy versus "other therapies" for depression. *Journal of Affective Disorders*, *68*(2–3), 159–165.

Westen, D., Novotny, C. M., & Thompson-Brenner, H. (2004). The empirical status of empirically supported psychotherapies: Assumptions, findings, and reporting in controlled clinical trials. *Psychological Bulletin*, *130*(4), 631–663.

Winston, A., Laikin, M., Pollack, J., Samstag, L. W., McCullough, L., & Muran, J. C. (1994). Short-term psychotherapy of personality disorders. *American Journal of Psychiatry*, *151*(2), 190–194.

Woody, G., Luborsky, L., McLellan, A. T., & O'Brien, C. P. (1990). Corrections and revised analyses for psychotherapy in methadone maintenance patients. *Archives of General Psychiatry*, *47*(8), 788–789.

Woody, G. E., Luborsky, L., McLellan, A. T., O'Brien, C. P., Beck, A. T., Blaine, J., ... Hole, A. (1983). Psychotherapy for opiate addicts. Does it help? *Archives of General Psychiatry*, *40*(6), 639–645.

Woody, G. E., McLellan, A. T., Luborsky, L., & O'Brien, C. P. (1995). Psychotherapy in community methadone programs: A validation study. *American Journal of Psychiatry*, *152*(9), 1302–1308.

Falk Leichsenring, D.Sc., is a professor for psychotherapy research at the University of Giessen. He is psychologist, psychoanalyst, and training analyst. He has published extensively on psychotherapy research, including questions of methodology and philosophy of science.

Susanne Klein, M.Sc., earned her master's in psychology at the University of Innsbruck, Austria (2010). In 2011, she joined the team of psychotherapy research at the Department of Psychosomatics and Psychotherapy at the University of Giessen, Germany. She has been working as a research assistant on the social phobia psychotherapy research network (SOPHO-NET).

Simone Salzer, D.Sc., is a post-doc researcher at the Clinic of Psychosomatic Medicine and Psychotherapy, University of Goettingen, Germany. She is a psychologist, currently in psychoanalytic training, and her research focuses on the efficacy and effectiveness of psychodynamic therapies.