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Psychodynamic psychotherapy: A systematic review of techniques, indications and empirical evidence

Falk Leichsenring* and Eric Leibing
University of Goettingen, Germany

Purpose. Psychodynamic psychotherapy is one of the most frequently applied methods of psychotherapy in clinical practice. However, it is the subject of controversial discussion, especially with regard to empirical evidence. In this article we aim to give an up-to-date description of the treatment and to review the available empirical evidence. Evidence is reviewed for both efficacy and mechanisms of change of short- and moderate-term psychodynamic psychotherapy. Furthermore, results of effectiveness studies of long-term psychoanalytic therapy are reviewed.

Methods. With regard to efficacy, a protocol for a Cochrane review for (short-term) psychodynamic psychotherapy is available specifying inclusion criteria for efficacy studies.

Results. Twenty-three randomized controlled trials of manual-guided psychodynamic psychotherapy applied in specific psychiatric disorders provided evidence that psychodynamic psychotherapy is superior to control conditions (treatment-as-usual or wait list) and, on the whole, as effective as already established treatments (e.g. cognitive-behavioural therapy) in specific psychiatric disorders. With regard to process research, central assumptions of psychodynamic psychotherapy were confirmed by empirical studies.

Conclusions. Further research should include both efficacy studies (on specific forms of psychodynamic psychotherapy in specific mental disorders) and effectiveness studies complementing the results from experimental research settings. Future process research should address the complex interactions among interventions, patient's level of functioning, helping alliance and outcome.

In clinical practice, psychodynamic psychotherapy is one of the most commonly used methods of psychotherapy (Goisman, Warshaw, & Keller, 1999). However, this form of treatment is the subject of controversial discussion, especially with regard to empirical evidence (Task Force on Promotion and Dissemination of Psychological Procedures, 1995). In this review article, an up-to-date description of this frequently used treatment

*Correspondence should be addressed to Falk Leichsenring, Clinic of Psychosomatics and Psychotherapy, University of Goettingen, von Sieboldstr. 5, D- 37075 Goettingen, Germany (e-mail: fleichs@gwgd.de).

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is given. Psychotherapeutic techniques, major indications and empirical evidence is presented. The focus is on empirically supported models of psychodynamic psychotherapy for adult patients. With regard to efficacy, the paper focuses on randomized controlled trials (RCTs) of psychodynamic psychotherapy in specific psychiatric disorders. However, RCTs serve only a limited function in the research cycle as they are carried out under controlled experimental conditions (e.g. Blatt, 1995; Blatt & Zuroff, 2005; Leichsenring, 2004; Roth & Parry, 1997; Seligman, 1995). For this reason, results of studies that were carried out under the conditions of clinical practice (effectiveness studies) will also be reviewed.

Definition of psychodynamic psychotherapy: The supportive – interpretive continuum

Psychodynamic psychotherapy serves as an umbrella concept (Henry, Strupp, Schacht, & Gaston, 1994). It encompasses treatments that operate on a continuum of supportive-interpretive psychotherapeutic interventions (Gabbard, 2004; Gill, 1951; Henry *et al.*, 1994; Luborsky, 1984; Schlesinger, 1969; Wallerstein, 1989). The concept of a supportive–interpretive (or supportive–expressive) continuum of psychotherapeutic interventions is empirically based on the data of the psychotherapy research project of the Menninger Foundation (Gill, 1951; Luborsky, 1984; Wallerstein, 1989). Interpretive interventions (e.g. interpretation) aim to enhance the patient's insight about repetitive conflicts sustaining his or her problems (Gabbard, 2004). Supportive interventions aim to strengthen abilities that are temporarily not accessible to a patient due to acute stress (e.g. traumatic events) or that have not been sufficiently developed (e.g. impulse control in borderline personality disorder). The establishment of a helping (or therapeutic) alliance is regarded as an important component of supportive interventions (Luborsky, 1984). Transference defined as the repetition of past experiences in present interpersonal relations constitutes another important dimension of the therapeutic relationship. In psychodynamic psychotherapy, transference is regarded as a primary source of understanding and therapeutic change (Gabbard, 2004; Gabbard & Westen, 2003; Luborsky, 1984). The emphasis that psychodynamic psychotherapy puts on the relational aspects of transference is a key technical difference to cognitive-behavioral therapies (Cutler, Goldyne, Markowitz, Devlin, & Glick, 2004). 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 problem is, the more supportive and the less expressive interventions are required and vice versa (Gill, 1951; Luborsky, 1984; Schlesinger, 1969). For example, patients suffering from a borderline personality disorder may need more supportive interventions in order to maintain self-esteem, a sense of reality or other ego-functions. Healthy subjects in an acute crisis or after a traumatic event may need more supportive interventions as well (e.g. stabilization, providing a safe and supportive environment). Thus, a broad spectrum of psychiatric 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 (Bateman & Fonagy, 1999, 2001; Clarkin, Yeomans, & Kernberg, 1999; Gill, 1951; Luborsky, 1984; Schlesinger, 1969). Psychodynamic psychotherapy can be carried out both as a short-term (time-limited) and as a long-term open-ended treatment. Open-ended psychotherapy in which treatment duration is not *a priori* fixed is not identical to unlimited psychotherapy

(Luborsky, 1984). Short-term treatments are time-limited, usually lasting between 7 and 24 sessions (e.g. Gabbard, 2004; Messer, 2001). Duration of long-term treatment ranges from several months to several years (Gabbard, 2004; Luborsky, 1984). Manual-guided models of psychodynamic psychotherapy are available (e.g. Bateman & Fonagy, 1999; Busch, Milrod, Cooper, & Shapiro, 1996; Clarkin *et al.*, 1999; Horowitz & Kaltreider, 1979; Luborsky, 1984; Piper, McCullum, Joyce, & Ogrodniczuk, 2001; Shapiro *et al.*, 1994; Strupp & Binder, 1984). Treatment manuals describe the interventions specific to the respective approach and its indications. They facilitate both the implementation of the treatment into clinical practice and its empirical test. The various models of psychodynamic psychotherapy and comparisons between them have been described in several overviews (e.g. Barber & Crits-Christoph, 1995; Messer & Warren, 1995).

Empirical evidence 1: Efficacy of psychodynamic psychotherapy

A Cochrane review for (short-term) psychodynamic psychotherapy is available that specifies criteria for efficacy studies (Abbass, Hancock, Henderson, & Kisley, 2004). These criteria are largely consistent with those applied in a recent meta-analysis and in two reviews of psychodynamic psychotherapy (Fonagy, Roth, & Higgitt, 2005; Leichsenring, 2005; Leichsenring, Rabung, & Leibing, 2004). According to these reviews, 24 methodological adequate RCTs of psychodynamic psychotherapy in specific psychiatric disorders are presently available. Of these 24 studies, 23 yielded evidence for the efficacy of psychodynamic psychotherapy: With a few exceptions, psychodynamic psychotherapy was either significantly superior to a control condition (treatment-as-usual or wait list) or as effective as an already established treatment (usually cognitive-behavioral therapy) in the treatment of specific psychiatric disorders.

Efficacy of short-term psychodynamic psychotherapy

Fifteen of the presently available RCTs refer to short-term psychodynamic psychotherapy. All of them provided evidence for the efficacy of short-term psychodynamic psychotherapy. They refer to the following mental disorders:

- major depressive disorder (Barkham *et al.*, 1996; Gallagher-Thompson, Hanley-Peterson, & Thompson, 1990; Gallagher-Thompson & Steffen, 1994; Shapiro *et al.*, 1994; Shapiro, Rees, Barkham, & Hardy, 1995; Thompson, Gallagher, & Steinmetz-Breckenridge, 1987);
- minor depressive disorders (Maina, Forner, & Bogetto, 2005);
- borderline personality disorder (Munroe-Blum & Marziali, 1995);
- bulimia nervosa (Fairburn, Kirk, O'Connor, & Cooper, 1986; Fairburn *et al.*, 1995; Garner *et al.*, 1993);
- anorexia nervosa (Gowers, Norton, Halek, & Vrisp, 1994);
- somatoform disorders (Creed *et al.*, 2003; Guthrie, Creed, Dawson, & Tomenson, 1991; Hamilton *et al.*, 2000);
- post-traumatic stress disorder (Brom, Kleber, & Defares, 1989);
- alcohol dependence (Sandahl, Herlitz, Ahlin, & Rönnberg, 1998);
- opiate dependence (Woody, Luborsky, McLellan, & O'Brien, 1990).

A (randomized controlled) feasibility study of supportive–expressive psychotherapy in generalized anxiety disorder was carried out by Crits-Christoph *et al.* (2005). In the

RCT studying the treatment of opiate dependence (Woody, Luborsky, McLellan, & O'Brien, 1995), psychodynamic psychotherapy was added to drug counselling and was found to be superior to drug counselling alone. This also applies to a study referring to the longer-term treatment of opiate dependence that is reported below (Woody *et al.*, 1995).

Efficacy of longer-term psychodynamic psychotherapy

Gabbard (2004) defined treatments with a duration longer than 24 sessions or 6 months as long-term – being fully aware of the arbitrariness of setting such a cut-off point. Of the presently available 24 RCTs 9 refer to treatments longer than 24 sessions with treatment durations between 25 and 46 sessions or with a treatment duration of 1 year or 18 months, respectively. It is of note, however, that the maximum duration of treatment was 18 months, thus, long-term psychoanalytic therapy of several years was not included. Eight of these nine RCTs provided evidence for the efficacy of longer-term psychodynamic psychotherapy in the following psychiatric disorders:

- social phobia (Bögels, Wijts, & Sallaerts, 2003);
- bulimia nervosa (Bachar, Latzer, Kreitler, & Berry, 1999);
- anorexia nervosa (Dare, Eisler, Russel, Treasure, & Dodge, 2001);
- borderline personality disorder (Bateman & Fonagy, 1999, 2001; Clarkin, Levy, Lenzenweger, & Kernberg, 2004);
- Cluster C personality disorders (Svartberg, Stiles, & Seltzer, 2004);
- somatoform pain disorder (Monsen & Monsen, 2000);
- opiate dependence (Woody *et al.*, 1995).

In only one RCT was longer-term psychodynamic psychotherapy not superior to a control condition (Crits-Christoph *et al.*, 1999, 2001). In that study psychodynamic psychotherapy of up to 36 individual sessions was combined with 24 sessions of group drug counselling in the treatment of cocaine dependence. The combined treatment yielded significant improvements and was as effective as CBT which was combined with group drug counselling as well. However, both CBT and psychodynamic psychotherapy plus group drug counselling was not more effective than group drug counselling alone. Furthermore, individual drug counselling 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.*, 2001).

Effectiveness

The exclusive position of RCTs as a method for demonstrating that a treatment works has recently been queried (e.g. Blatt & Zuroff, 2005; Leichsenring, 2004; Roth & Parry, 1997; Seligman, 1995). RCTs are carried out under controlled experimental (laboratory) conditions, thus, their results cannot be generalized to routine clinical practice. Furthermore, the methodology of RCTs is not appropriate for long-term psychoanalytic therapy. It is not possible, for example, to carry out a psychotherapeutic treatment for several years according to a treatment manual (e.g. Seligman, 1995). Equally credible control conditions can also not be realized. Contrary to RCTs, effectiveness studies are

carried out under the conditions of clinical practice (e.g. Seligman, 1995). Several effectiveness studies, which used reliable and valid outcome measures, have provided evidence that psychoanalytic therapy yields significant improvements in patients with complex (i.e. multi-morbid) mental disorders. Large effect sizes (Cohen, 1988) with regard to symptoms, interpersonal problems, social adjustment, inpatient days and other outcome criteria were reported, for example, by Dührssen and Jorswieck (1965), Leichsenring, Biskup, Kreische, and Staats (2005), Luborsky *et al.* (2001), Rudolf *et al.* (2004), Rudolf, Manz, and Öri (1994) and Sandell *et al.* (2000). In several quasi-experimental studies, psychoanalytic therapy was superior to treatment-as-usual or shorter psychodynamic therapy (Dührssen & Jorswieck, 1965; Rudolf *et al.*, 2004, 1994; Sandell *et al.*, 2000). In a re-evaluation of the Menninger Psychotherapy Research Project, Blatt and Shahar (2004) addressed the question of the unique nature and effectiveness of psychoanalysis. According to their results, psychoanalysis contributed significantly to the development of adaptive interpersonal capacities and to the reduction of maladaptive interpersonal behaviour, especially with more self-reflective (introjective) patients. Supportive–expressive therapy, by contrast, only yielded a reduction of maladaptive interpersonal behaviour and only with dependent, unreflective patients.

Empirical evidence 2: Research on treatment fidelity, psychodynamic interventions and transference

In order to objectivize psychodynamic psychotherapy, methods have been developed to reliably assess psychotherapeutic interventions, helping alliance, repetitive conflicts, central relationship themes (transference) or insight (Barber, Foltz, Crits-Christoph, & Chittams, 2004; Crits-Christoph, Connolly, & Shaffer, 1999; Crits-Christoph & Luborsky, 1988; Crits-Christoph, Cooper, & Luborsky, 1988; Curtis, Silberschatz, Sampson, Weiss, & Rosenberg,1988; Gill & Hoffman, 1982; Luborsky, 1984, 1990; Luborsky, Crits-Christoph, Mintz, & Auerbach, 1988; Luborsky, Crits-Christoph, Alexander, Marguolis, & Cohen, 1983; Piper *et al.*, 2001; Psychodynamic Diagnostic Manual Work Groups of APsaA, IPA, Division 39-APA, AAPDP, NMCOP, 2006; Shapiro *et al.*, 1994). By using these methods, research has provided evidence that can be summarized as follows:

(1) Assessing the interventions actually applied in the treatments by blinded evaluators, psychodynamic psychotherapy can be discriminated with sufficient accuracy from other forms of psychotherapy, such as cognitive-behavioral therapy or interpersonal therapy (Barber *et al.*, 2004; Luborsky, 1984; Luborsky, Woody, McLellan, & Rosenzweig, 1982; Piper *et al.*, 2001).
(2) There is evidence that the outcome of psychodynamic psychotherapy is significantly related to psychotherapeutic techniques and therapist skilfulness (Crits-Christoph & Connolly, 1999): 'purity' of technique (Luborsky, McLellan, Woody, O'Brian, & Auerbach, 1985), accuracy of interpretation (Christoph *et al.*, 1988; Messer, Tishby, & Spillman, 1992) and the competent delivery of interpretive techniques (Barber, Luborsky, & Crits-Christoph, 1996) significantly predicted outcome of psychodynamic psychotherapy. These findings suggest that specific techniques of psychodynamic psychotherapy as contrasted to the non-specific factors of psychotherapy (e.g. paying attention) significantly account for the

outcome of psychodynamic psychotherapy (Crits-Christoph & Connolly, 1999). However, other factors contribute to outcome as well, e.g. patient variables such as the patient's psychological health-sickness or non-specific factors (Luborsky *et al.*, 1988, 1985). Furthermore, there is evidence for an interaction of technique, outcome and patient variables. For example, frequency of transference interpretations in short-term psychodynamic psychotherapy seems to be associated with both poor outcome and poor therapeutic alliance in more severely disturbed patients (Connolly *et al.*, 1999; Piper, Azim, Joyce, & McCallum, 1991; Piper, Azim, Joyce, McCallum, & Nixon *et al.*, 1991; Piper *et al.*, 2001). These patients seem to benefit more from supportive interventions (Piper *et al.*, 2001). Further research should address the complex interactions among interventions, patient's level of functioning, helping alliance and outcome (Luborsky, Barber, & Crits-Christoph, 1990).

(3) Using reliable measures of transference empirical studies provided evidence that specific changes in transference patterns (mediating factor) are significantly related to outcome of psychodynamic psychotherapy (Crits-Christoph & Luborsky, 1990; O'Connor, Edelstein, Berry, & Weiss, 1994). Improved patients showed greater change in their transference pattern than unimproved patients. However, even in successful therapies, the transference pattern was still evident, but under better control and mastery (Crits-Christoph & Luborsky, 1990; Luborsky *et al.*, 1990).

(4) There is evidence that the helping alliance is a significant, but modest predictor of treatment outcome in psychodynamic psychotherapy (Barber, Connolly, Crits-Christoph, Gladis, & Siqueland, 2000; Beutler, Malik, & Alomohamed, 2004; Crits-Christoph & Connolly, 1999; Horvath, 2005; Messer, 2001; Stiles, Agnew-Davies, Hardy, Barkham, & Shapiro, 1998). After all, the impact of the helping alliance on outcome seems to be smaller than expected, and also to be dependent on patient group, treatment models and time of assessment (Barber *et al.*, 2000, 2001; Beutler *et al.*, 2004; Christoph *et al.*, 1988; Horvath, 2005). Future research should address the question whether the helping alliance is in itself a curative factor or whether it serves as the basis necessary for other therapeutic elements to become beneficial (Horvath, 2005).

Discussion

Although frequently applied in clinical practice, psychodynamic psychotherapy is the subject of controversial discussion. According to the results of the available RCTs, there is evidence that psychodynamic psychotherapy is superior to control conditions and, on the whole, as effective as cognitive-behavioral therapy in specific psychiatric disorders (e.g. Leichsenring *et al.*, 2004). However, evidence is limited for several reasons. For some psychiatric disorders, there are no RCTs of psychodynamic psychotherapy at all, for example for panic disorder, obsessive-compulsive disorder or some specific personality disorders (e.g. narcissistic personality disorder). Furthermore, different models of psychodynamic psychotherapy were applied in the available RCTs, for example the models of Luborsky (1984), Malan (1976) or Kernberg (Clarkin *et al.*, 1999). It is not clear whether the results of one model can be generalized to others models of psychodynamic psychotherapy. Further studies of specific models of psychodynamic psychotherapy in specific psychiatric disorders are required to confirm and extend the results.

For research on long-term psychotherapy, effectiveness studies are required. Several effectiveness studies provided evidence that long-term psychoanalytic psychotherapy yielded statistically and clinically significant improvements in patients with complex (i.e. multi-morbid) mental disorders. Furthermore, there is evidence that long-term psychoanalytic psychotherapy is superior to shorter or more supportive forms of psychodynamic therapy (Blatt & Shahar, 2004; Rudolf *et al.*, 2004; Sandell *et al.*, 2000). The study by Blatt and Shahar (2004) provided evidence for differential effectiveness.

Further research should include both RCTs (on specific forms of psychodynamic psychotherapy in specific mental disorders) and effectiveness studies complementing the results from research settings. The National Institute of Mental Health in the US has specifically called for more effectiveness research (Krupnick *et al.*, 1996).

Apart from efficacy, psychotherapy, in general, and psychodynamic psychotherapy, in particular, has been shown to be a cost-effective treatment (Beutler *et al.*, 2004; Creed *et al.*, 2003; Gabbard, Lazar, Hornberger, & Spiegel, 1997; Guthrie *et al.*, 1999).

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