

# The Efficacy of Short-term Psychodynamic Psychotherapy in Specific Psychiatric Disorders

## A Meta-analysis

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**Background:** The efficacy of psychodynamic therapy is controversial. Previous meta-analyses have reported discrepant results.

**Objective:** To test the efficacy of short-term psychodynamic psychotherapy (STPP) in specific psychiatric disorders by performing a meta-analysis of more recent studies. We assessed outcomes in target problems, general psychiatric symptoms, and social functioning.

**Design:** We identified studies of STPP published between January 1, 1970, and September 30, 2004, by means of a computerized search using MEDLINE, PsycINFO, and Current Contents. Rigorous inclusion criteria, included randomized controlled trials, use of treatment manuals and ensurance of treatment integrity, therapists experienced or specifically trained in STPP, treatment of patients with specific psychiatric disorders, reliable and valid diagnostic measures, and data necessary to calculate effect sizes. Studies of interpersonal therapy were excluded. Seventeen studies fulfilled the inclusion criteria. The information was extracted by 3 raters. Effect sizes were calculated for target problems, general psychiatric symptoms, and social functioning using the data published in the original studies. To examine the stabil-

ity of outcome, we assessed effect sizes separately for end of therapy and follow-up assessment. The effect sizes of STPP were compared with those of waiting-list control patients, treatments as usual, and other forms of psychotherapy.

**Results:** Short-term psychodynamic psychotherapy yielded significant and large pretreatment-posttreatment effect sizes for target problems (1.39), general psychiatric symptoms (0.90), and social functioning (0.80). These effect sizes were stable and tended to increase at follow-up (1.57, 0.95, and 1.19, respectively). The effect sizes of STPP significantly exceeded those of waiting-list controls and treatments as usual. No differences were found between STPP and other forms of psychotherapy.

**Conclusions:** Short-term psychodynamic psychotherapy proved to be an effective treatment in psychiatric disorders. However, further research of STPP in specific psychiatric disorders is needed, including a study of the active ingredients of STPP. Effectiveness studies should be included.

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**T**HE PLACE OF PSYCHOANALYTIC and psychodynamic treatments within psychiatry is controversial.<sup>1-4</sup> For long-term psychoanalytic psychotherapy and psychoanalysis, convincing outcome research is urgently needed.<sup>1,2</sup> In the field of short-term psychodynamic psychotherapy (STPP), more evidence of efficacy is available. Various meta-analyses have addressed the efficacy of STPP.<sup>5-7</sup> Svartberg and Stiles<sup>6</sup> found STPP to be superior to a no-treatment control condition, but inferior to alternative psychotherapies. According to Crits-Christoph,<sup>5</sup> STPP achieved large effect sizes compared with untreated waiting-list control patients and was found to be equally effective as other forms of treatment such

as cognitive-behavioral therapy (CBT) or psychopharmacological treatment. Although the effect sizes of STPP assessed by Anderson and Lambert<sup>7</sup> were a bit lower than those reported by Crits-Christoph, their results corroborated the findings of Crits-Christoph.<sup>5</sup> One factor that heavily influences the outcome of a meta-analysis is the selection and the quality of the studies included.<sup>8</sup> Unlike Svartberg and Stiles,<sup>6</sup> Crits-Christoph<sup>5</sup> and Anderson and Lambert<sup>7</sup> included studies of interpersonal therapy (IPT) as representative of STPP. However, the relation of IPT to STPP is controversial.<sup>9</sup> According to empirical results, IPT seems to be very close to CBT.<sup>10</sup>

Furthermore, the methodological quality of the studies included in a meta-analysis plays an important role. As Messer

and Warren<sup>11,12</sup> have pointed out, many studies included in the meta-analysis of Svartberg and Stiles<sup>6</sup> showed severe conceptual and methodological flaws. This is also true for the meta-analysis of Grawe et al,<sup>13,14</sup> which compared STPP and CBT. To avoid these flaws, Crits-Christoph<sup>5</sup> included in his meta-analysis only studies that fulfilled rigorous inclusion criteria (eg, use of therapy manuals, experienced therapists, minimum number of sessions). Wampold et al<sup>15</sup> assessed the efficacy of bona fide treatments and did not find differences between different methods of psychotherapy. Up to the present, 2 disorder-specific meta-analyses of STPP have been published. The meta-analysis of Leichsenring,<sup>16</sup> which used criteria similar to those of Crits-Christoph,<sup>5</sup> found STPP and CBT to be equally effective in the treatment of depression. For the treatment of personality disorders, significant and large effect sizes for STPP and CBT were found in the meta-analysis of Leichsenring and Leibing.<sup>17</sup>

Randomized controlled studies (RCTs) are regarded as the gold standard for the demonstration that a treatment is effective. This applies not only to psychotherapy research but to the realm of evidence-based medicine in general.<sup>18-22</sup> This assumption is reflected in the criteria proposed by the Task Force on Promotion and Dissemination of Psychological Procedures of Division 12 (Clinical Psychology) of the American Psychological Association for the definition of empirically supported treatments.<sup>23</sup> According to these criteria, empirical support for psychotherapeutic methods can only be provided by RCTs in which a therapy group is compared with a control condition (waiting list or placebo group) or with an already established therapy.<sup>8,23,24</sup> Furthermore, the use of therapy manuals and the treatment of a specific disorder are required.

Since the publication of the meta-analyses of Svartberg and Stiles,<sup>6</sup> Crits-Christoph,<sup>5</sup> Grawe et al,<sup>13</sup> and Anderson and Lambert<sup>7</sup> and the report of the Task Force,<sup>23</sup> several studies of STPP have been published that have not yet been included in meta-analyses of STPP. The most recent study included by Anderson and Lambert was published in 1993, ie, more than 10 years ago.<sup>25</sup> For this reason, we conducted a new meta-analysis that included the more recent studies of STPP. As the results of a meta-analysis depend on the quality of the studies included, we applied rigorous inclusion criteria.

This meta-analysis addressed the following questions: (1) What is the evidence of improvement in target problems, general psychiatric symptoms, and social functioning after STPP? (2) Do the effects of STPP exceed the effects of untreated control groups and treatment-as-usual (TAU) groups? (3) Are there differences in efficacy between STPP and other forms of psychotherapy? (4) How stable are the effects of STPP? and (5) Is there a correlation between outcome and duration of treatment?

## METHODS

### DEFINITION OF STPP

Apart from conceptual and technical differences, there are some therapeutic elements that the different models of STPP have in common.<sup>11,12</sup> With regard to formal characteristics, they are time limited (usually 16-30 sessions with a range of 7-40 ses-

sions) and performed in a face-to-face setting, with 1 or 2 sessions a week.<sup>12,26-28</sup> Therapies including 6 or fewer sessions are regarded as ultrabrief.<sup>28</sup> The therapeutic techniques of STPP are elaborations and modifications of general principles of psychodynamic psychotherapy. Short-term psychodynamic psychotherapy is characterized by the following features.<sup>12</sup> First, therapists are usually relatively active and foster the development of a therapeutic alliance and a positive transference. Second, STPP focuses on specific conflicts or themes that are formulated early in therapy. Third, attention is paid to adherence to the focus, the setting of achievable goals, and termination issues. The focus is on the patients' experiences here and now, including their symptoms. With regard to transference, the emphasis is more on the here-and-now dimension, ie, on the present relationship between the patient and the psychotherapist, which is not necessarily traced back to the past. In a review of empirical studies, Blagys and Hilsenroth<sup>29</sup> identified 7 features that were observed significantly more frequently in STPP compared with CBT, including focus on affect, resistance, identification of consistent patterns (of relationships, feelings, and behaviors), past experiences, interpersonal experiences, the therapeutic relationship, and wishes, dreams, or fantasies.

### SELECTION OF STUDIES

We collected studies of STPP that were published between January 1, 1970, and September 30, 2004, by performing a computerized search using MEDLINE, PsycINFO, and Current Contents. The following key words were used: *psychodynamic therapy*, *psychoanalytically oriented therapy*, *psychoanalytic therapy*, and *randomized controlled trial*. A total of 141 partly overlapping journal articles were found. The only studies included in the meta-analysis fulfilled the following methodological requirements: (1) a randomized controlled design was applied; (2) a specific form of STPP as represented in a treatment manual or manual-like guide was applied, and treatment integrity was ensured; (3) therapists were specifically trained and/or experienced in STPP techniques; (4) patients with specific psychiatric disorders were treated (no mixed samples or analogue studies); (5) the patient sample was clearly described; (6) diagnostic procedures and outcome measures for which reliability and validity have been demonstrated were used; and (7) data were reported that are necessary to calculate pre-treatment-posttreatment effect sizes.

Contrary to the meta-analyses of Crits-Christoph<sup>5</sup> and Anderson and Lambert,<sup>7</sup> studies of IPT were not included (eg, Elkin et al<sup>30</sup> and Willley et al<sup>31</sup>), because the relation of IPT to STPP is controversial, and empirical results suggest that IPT is very close to CBT.<sup>9</sup> Thus, this review includes only studies for which there is a general agreement that they represent models of STPP. As it is questionable to aggregate the results of very different outcome measures that refer to different areas of psychological functioning, we assessed the efficacy of STPP separately for target symptoms, general psychiatric symptoms (ie, comorbid symptoms), and social functioning.<sup>32</sup> This procedure is analogous to the meta-analysis of Crits-Christoph.<sup>5</sup> As outcome measures of target problems, we included patient ratings of target problems and measures referring to the symptoms that are specific to the patient group under study, eg, measures of anxiety for studies investigating treatments of anxiety disorders.<sup>33</sup> For the efficacy of STPP in general psychiatric symptoms, broad measures of psychiatric symptoms such as the Symptom Checklist-90 and specific measures that do not refer specifically to the disorder under study were included; eg, the Beck Depression Inventory applied in patients with personality disorders.<sup>34,35</sup> For the assessment of social functioning, the Social Adjustment Scale and similar measures were included.<sup>36</sup>

## ASSESSMENT OF EFFECT SIZES

We calculated within-group effect sizes for all studies using the Cohen *d* statistic. For each measure, we subtracted the post-treatment mean from the pretreatment mean and divided the difference by the pretreatment standard deviation of the measure.<sup>37</sup> If there was more than 1 patient group, we calculated a pooled baseline standard deviation, as suggested by Rosenthal.<sup>38</sup> If necessary, signs were reversed so that a positive effect size always indicated improvement. We assessed effect sizes separately for measures of target problems, general psychiatric symptoms, and social functioning. Whenever multiple measures were applied in a study, we assessed the effect size for each measure separately and calculated the mean effect size to assess the overall outcome of the study in the respective area of functioning. We computed effect sizes that were unweighted and those weighted by the sample size to yield unbiased estimators of effect sizes.<sup>38,39</sup> To examine the stability of psychotherapeutic effects, we assessed effect sizes separately for assessments at termination of therapy and follow-up.

Furthermore, between-group effect sizes were assessed according to the method described by Cohen<sup>37</sup> by calculating the difference between preoutcome and postoutcome (follow-up) measures of the STPP group minus the difference between pre-assessment and postassessment (follow-up) measures of the comparison group, divided by the pooled standard deviation before therapy. These between-group effect sizes give the difference in the magnitude of change between STPP and the comparison group in units of standard deviation. An effect size of zero indicates that STPP and comparison groups are equal in therapeutic effect. All calculations were made so that a positive effect size indicates superiority of STPP.

The first rater extracted the following information from the articles: (1) name of the authors, (2) year of publication, (3) psychiatric disorder treated with STPP, (4) model of STPP, (5) duration of STPP, (6) comparison group, (7) sample size in each group, and (8) means and standard deviations for each outcome measure. This information was checked by the second rater, and disagreements were resolved by consensus, including the ratings of the third rater.

## RESULTS

### DESCRIPTION OF STUDIES

Seventeen studies of STPP met the inclusion criteria.<sup>40-57</sup> The studies are described in **Table 1** (data necessary for the assessment of effect sizes were provided by Susan Bögels, PhD [written communication, January 23, 2004]; Paul Crits-Christoph, PhD [written communication, November 11, 2003]; and P. J. Cooper, PhD, and Helena Romaniuk, PhD [written communication, November 24, 2003]).

### OVERLAP WITH OTHER META-ANALYSES

Of the 17 studies that were identified, 13 (76%) have not yet been included in other meta-analyses of STPP. Only 2 of the 19 studies that Svartberg and Stiles<sup>6</sup> included in their meta-analysis met our inclusion criteria.<sup>45,54</sup> Of the 26 studies in the meta-analysis of Anderson and Lambert,<sup>7</sup> 4 could be included.<sup>41,54-56</sup> Of the 11 studies included by Crits-Christoph,<sup>5</sup> we included 4.<sup>41,54-56</sup> Crits-Christoph<sup>5</sup> and Anderson and Lambert<sup>7</sup> included studies of IPT, which we excluded. Only 2 studies of the meta-analysis of Leichsenring<sup>16</sup>

were included,<sup>52,54</sup> and only 1 study<sup>50</sup> of the meta-analysis of Leichsenring and Leibling.<sup>17</sup> Accordingly, only a limited portion of the studies that were included in previous meta-analyses of STPP was included in our meta-analysis. Thus, most of the studies included in our meta-analysis have not been included in the previous meta-analyses.

### Models of STPP

In the 17 studies included in our meta-analysis, different models of STPP were applied (Table 1). The most frequently applied concepts of STPP were the methods developed by Luborsky,<sup>65</sup> Horowitz,<sup>73</sup> Shapiro and Firth,<sup>66</sup> and Davanloo.<sup>27</sup>

### Therapy Duration

In the 17 studies of STPP, the number of sessions conducted ranged from 7 to 40. Short therapies of 7 sessions were performed in the study of Hamilton et al,<sup>48</sup> whereas longer therapies were performed in the studies of Winston et al<sup>55</sup> and Svartberg et al,<sup>53</sup> who studied the treatment of personality disorders (Table 1). The mean number of sessions of STPP was 20.97 (SD, 10.90).

### DURATION OF FOLLOW-UP

Mean length of follow-up was about 1 year (mean, 61.42 weeks; SD, 71.26 weeks).

### PSYCHIATRIC DISORDERS

In the studies selected, the following psychiatric disorders were treated with STPP: major depression (2 studies), maternal depression (1), posttraumatic stress disorder (1), bulimia nervosa (2), anorexia nervosa (1), opiate dependence (2), cocaine dependence (1), cluster C personality disorders (3), borderline personality disorder (1), somatoform pain disorder (1), chronic functional dyspepsia (1), and social phobia (1).<sup>40-57</sup> It is desirable to perform meta-analyses of STPP separately for specific psychiatric disorders, eg, for somatoform disorders or anxiety disorders. However, the number of RCTs of STPP is not yet large enough for that purpose. Nevertheless, it is still useful at the present state of research to evaluate the efficacy of STPP in psychiatric disorders in general, ie, across different psychiatric disorders.

### EFFECT SIZES OF STPP

Within-group effect sizes of STPP, other forms of psychotherapy, TAU, and waiting list are presented in **Table 2**.

### Target Problems

Short-term psychodynamic psychotherapy yielded an effect size of 1.39 after therapy and of 1.57 at follow-up (Table 2). To determine whether the effect sizes were different from zero, we performed unpaired, 2-tailed *t* tests. Both effect sizes differed significantly from zero ( $t_{16}=6.94$  [ $P<.001$ ] and  $t_{15}=7.10$  [ $P<.001$ ], respectively). The limits of a 95% confidence interval (CI) were 0.97 and 1.82

**Table 1. Studies of STPP**

Source	Psychiatric Disorder	No. of Patients		Concept of STPP	No. of STPP Sessions
		STPP Group	Comparison Group		
<b>Compared With Other Psychotherapy</b>					
Bögels et al, <sup>40</sup> 2003, and S Bögels, P Wijts, and S Sallaerts, unpublished data, January 2004	Generalized social phobia	22	CBT (n = 27)	Malan <sup>58</sup>	36
Brom et al, <sup>41</sup> 1989	PTSD	29	CBT (n = 31); HT (n = 29)	Horowitz <sup>59</sup>	Mean, 18.8
Cooper et al, <sup>42</sup> 2003	Maternal depression	40	CBT (n = 41); NDC (n = 42)	Cramer et al <sup>60</sup>	10 in 10 wk
Crits-Christoph et al, <sup>43,44</sup> 1999 and 2001	Cocaine dependence	124	CBT and group DC (n = 91); individual DC (n = 92); group DC (n = 96)*	Mark and Luborsky <sup>61</sup> with group DC	36 Individual and 24 group in 4 mo
Fairburn et al, <sup>45</sup> 1986	Bulimia nervosa	11	CBT (n = 11)	Rosen, <sup>62</sup> Bruch, <sup>63</sup> and Stunkard <sup>64</sup>	19
Garner et al, <sup>46</sup> 1993	Bulimia nervosa	25	CBT (n = 25)	Luborsky <sup>65</sup>	19
Hamilton et al, <sup>48</sup> 2000	Chronic functional dyspepsia	37	ST (n = 36)	Shapiro and Firth <sup>66</sup>	7
Hellerstein et al, <sup>49</sup> 1998	Personality disorders	25	Brief ST (n = 24)	Davanloo, <sup>27</sup> Laikin and Winston <sup>67</sup>	Mean, 28.5
Munroe-Blum and Marziali, <sup>51</sup> 1995	Borderline personality disorder	31	Group IPT (n = 25)	Kernberg <sup>68</sup>	17
Shapiro et al, <sup>52</sup> 1994	Depression	58	CBT (n = 59)	Shapiro and Firth <sup>66</sup>	8 vs 16
Svartberg et al, <sup>53</sup> 2004	Cluster C personality disorders	25	CBT (n = 25)	Malan, <sup>58</sup> McCullough-Vaillant <sup>69</sup>	40
Thompson et al, <sup>54</sup> 1987	Depression	24	CBT (n = 27); BT (n = 25)	Horowitz and Kaltreider <sup>72</sup>	16-20
Winston et al, <sup>55</sup> 1994	Personality disorders	25	Brief APT (n = 30)	Davanloo <sup>27</sup>	40
Woody et al, <sup>56</sup> 1990	Opiate dependence	31	CBT and DC (n = 34); DC (n = 35)*	Luborsky <sup>65</sup> with DC	12
Woody et al, <sup>57</sup> 1995	Opiate dependence	57	DC (n = 27)	Luborsky <sup>65</sup>	26
Cooper et al, <sup>42</sup> 2003	Maternal depression	40	Routine primary care (n = 42)	Cramer et al <sup>60</sup>	10 in 10 wk
Gowers et al, <sup>47</sup> 1994	Anorexia nervosa	20	TAU (n = 20)	Crisp <sup>70</sup>	12
<b>Compared With Waiting-List Control Group</b>					
Monsen and Monsen, <sup>50</sup> 2000	Somatoform pain disorder	20	TAU/no therapy (n = 20)	Monsen and Monsen <sup>71</sup>	33
Bögels et al, <sup>40</sup> 2003, and S Bögels, P Wijts, and S Sallaerts, unpublished data, January 2004	Generalized social phobia	22	n = 27	Malan <sup>58</sup>	36
Brom et al, <sup>41</sup> 1989	PTSD	29	n = 23	Horowitz <sup>59</sup>	Mean, 18.8
Thompson et al, <sup>54</sup> 1987	Depression	24	n = 19	Horowitz and Kaltreider <sup>72</sup>	16-20
Winston et al, <sup>55</sup> 1994	Personality disorders	25	n = 26	Davanloo <sup>27</sup>	40

Abbreviations: APT, adaptive psychotherapy; BT, behavioral therapy; CBT, cognitive behavioral therapy; DC, drug counseling; HT, hypnotherapy; IPT, interpersonal therapy; NDC, nondirective counseling; PTSD, posttraumatic stress disorder; ST, supportive therapy; STPP, short-term psychodynamic psychotherapy; TAU, treatment as usual.

\*As suggested by 1 of the anonymous reviewers, manual-guided DC was regarded as a form of psychotherapy rather than TAU.

at the posttherapy assessment and 1.10 and 2.04 at the follow-up assessment. Adjustment for sample size<sup>38,39</sup> yielded nearly identical results (1.37,  $t_{16}=7.00$  [ $P<.001$ ] and 1.54,  $t_{15}=7.15$  [ $P<.001$ ], respectively).

### General Psychiatric Symptoms

Short-term psychodynamic psychotherapy yielded an effect size of 0.90 after therapy and of 0.95 at follow-up. Both effect sizes differed significantly from zero ( $t_{14}=7.25$  [ $P<.001$ ] and  $t_{12}=6.90$  [ $P<.001$ ], respectively). The lim-

its of a 95% CI were 0.64 and 1.17 at the postassessment measurement and 0.65 and 1.25 at the follow-up assessment. Adjustment for sample size again yielded nearly identical effect sizes of 0.89 ( $t_{14}=7.29$  [ $P<.001$ ]) and 0.93 ( $t_{12}=6.95$  [ $P<.001$ ]).

### Social Functioning

Short-term psychodynamic psychotherapy yielded an effect size of 0.80 after therapy and of 1.19 at follow-up. Both effect sizes differed significantly from zero ( $t_{10}=7.29$

**Table 2. Effect Sizes of STPP, CBT, Other Forms of Psychotherapy, TAU, and Waiting-List Controls**

Treatment/Control Group	No. of Studies	Effect Sizes	
		Mean (SD)	Range
<b>STPP</b>			
Target problems (pre-post)	17	1.39 (0.83)	0.21 to 3.60
Target problems (pre-fu)	16	1.57 (0.88)	0.40 to 3.60
General psychiatric symptoms (pre-post)	15	0.90 (0.48)	0.41 to 1.90
General psychiatric symptoms (pre-fu)	13	0.95 (0.50)	0.32 to 1.80
Social functioning (pre-post)	11	0.80 (0.37)	0.20 to 1.55
Social functioning (pre-fu)	8	1.19 (0.72)	0.50 to 2.75
<b>CBT</b>			
Target problems (pre-post)	11	1.38 (0.49)	0.47 to 2.21
Target problems (pre-fu)	9	1.33 (0.41)	0.81 to 1.96
General psychiatric symptoms (pre-post)	10	1.04 (0.52)	0.38 to 1.81
General psychiatric symptoms (pre-fu)	8	0.97 (0.63)	0.23 to 1.86
Social functioning (pre-post)	8	0.92 (0.29)	0.45 to 1.31
Social functioning (pre-fu)	5	1.05 (0.39)	0.37 to 1.36
<b>Other psychotherapies</b>			
Target problems (pre-post)	9	1.14 (0.79)	0.07 to 2.00
Target problems (pre-fu)	9	1.13 (0.88)	-0.10 to 2.14
General psychiatric symptoms (pre-post)	8	0.82 (0.84)	0.07 to 2.80
General psychiatric symptoms (pre-fu)	8	0.74 (0.88)	-0.12 to 2.80
Social functioning (pre-post)	4	1.10 (1.15)	0.37 to 2.80
Social functioning (pre-fu)	4	0.79 (1.16)	0.00 to 2.80
<b>TAU</b>			
Target problems (pre-post)	3	0.55 (0.56)	0.19 to 1.20
Target problems (pre-fu)	3	0.84 (0.78)	0.20 to 1.71
General psychiatric symptoms (pre-post)	1	0.22	0.22
General psychiatric symptoms (pre-fu)	1	0.24	0.24
Social functioning (pre-post)	1	0.38	0.38
Social functioning (pre-fu)	1	0.95	0.95
<b>Waiting list</b>			
Target problems (pre-post)	4	0.27 (0.33)	0.00 to 0.72
Target problems (pre-fu)		NA	NA
General psychiatric symptoms (pre-post)	4	0.12 (0.13)	-0.04 to 0.24
General psychiatric symptoms (pre-fu)		NA	NA
Social functioning (pre-post)	2	0.21 (0.23)	0.04 to 0.37
Social functioning (pre-fu)		NA	NA

Abbreviations: CBT, cognitive-behavioral therapy; NA, not available; pre-fu, pretherapy vs follow-up assessments; pre-post, pretherapy vs posttherapy assessments; STPP, short-term psychodynamic psychotherapy; TAU, treatment as usual.

[ $P < .001$ ] and  $t_7 = 4.65$  [ $P = .002$ ], respectively). The limits of a 95% CI were 0.56 and 1.05 at the posttherapy assessment and 0.58 and 1.79 at the follow-up assessment. Again, adjustment for sample size yielded nearly identical effect sizes of 0.79 ( $t_{10} = 7.28$ ; [ $P < .001$ ]) and 1.16 ( $t_7 = 4.64$  [ $P = .002$ ]).

#### STABILITY OF EFFECT SIZES

To assess the stability of effects, we compared the pretherapy and posttherapy effect sizes with the pre-follow-up effect sizes for only those studies that in-

cluded follow-up assessments. For STPP, the pre-follow-up effect sizes were stable (target problems, 1.44 vs 1.57; general psychiatric symptoms, 0.91 vs 0.95; social functioning, 0.89 vs 1.19). This was also true for CBT (target problems, 1.37 vs 1.33; general psychiatric symptoms, 1.01 vs 0.97; social functioning, 0.97 vs 1.05).

#### EFFECT SIZES OF NO TREATMENT

Four studies provided data for waiting-list control patients (Table 1). No treatment yielded small effect sizes that ranged from 0.12 to 0.27 (Table 2). Because of the small number of studies ( $n = 4$ ), we did not perform tests of significance for the between-group effect sizes of STPP and no treatment.

#### EFFECT SIZES OF TAU PATIENTS

Three studies provided data for TAU (Table 1). We decided to regard the control condition of the study of Gowers et al<sup>47</sup> as TAU rather than as no treatment, because some of these patients had "received extensive treatment elsewhere." Treatment as usual yielded effect sizes that ranged from 0.22 to 0.95 (Table 2). Again, we did not perform tests of significance for the between-group effect sizes of STPP and TAU because of the small number of studies ( $n = 3$ ).

#### STPP VS NO TREATMENT AND TAU

To compare STPP with no treatment and TAU, we tested whether the between-group effect sizes between STPP on the one hand and no treatment and TAU on the other significantly differed from zero ( $t$  tests for independent samples). According to the results, STPP was significantly superior to no treatment and TAU with regard to target problems, general psychiatric symptoms, and social functioning (Table 3). Because of the small number of studies, these tests were performed only for the posttherapy effect sizes. The between-group effect sizes were large for target problems and medium to large for general psychiatric symptoms and social functioning (Table 3).

#### STPP VS OTHER FORMS OF PSYCHOTHERAPY

Fifteen studies included a comparison of STPP with other forms of psychotherapy (Table 1). For these comparisons we calculated between-group effect sizes (Table 3). They ranged from 0.02 to 0.23, thus corresponding to small effect sizes according to Cohen.<sup>37</sup> To test for differences between STPP and other forms of psychotherapy in these 15 studies, we performed multiple analyses of variance (MANOVA).<sup>74</sup> In a first MANOVA, we compared the pretherapy-posttherapy effect sizes between STPP and other forms of psychotherapy in target symptoms, general psychiatric symptoms, and social functioning. In a second MANOVA, we compared the pre-follow-up effect sizes between STPP and other forms of psychotherapy on the 3 outcome variables. Both MANOVAs yielded an insignificant result at the posttherapy assessment (Wilks  $\Lambda = 0.92$ ;  $F_{3,15} = 0.49$  [ $P = .69$ ])

and at follow-up (Wilks  $\Lambda=0.89$ ;  $F_{3,13}=0.53$  [ $P=.67$ ]). According to these results, STPP and other forms of psychotherapy did not differ significantly concerning their effect sizes at the end of therapy or at follow-up.

### THERAPY DURATION AND EFFECT SIZES

We tested whether the effect sizes of STPP correlate with the duration of therapy (number of sessions). For STPP, all Spearman rank correlations with any outcome measure were insignificant (for all,  $r_s \leq 0.21$  [ $P=.64$ ]).

### COMMENT

The place of psychoanalytic and psychodynamic treatments within psychiatry is controversial. This meta-analysis addressed the efficacy of STPP in specific psychiatric disorders. At present, the number of RCTs is not yet large enough to perform meta-analyses of STPP for specific psychiatric disorders separately. For this reason, our meta-analysis addressed the question of how effective STPP is in general in the treatment of psychiatric disorders. We studied the effects in target problems, general psychiatric problems, and social functioning.

The data presented herein corroborate the results reported by Crits-Christoph,<sup>5</sup> Anderson and Lambert,<sup>7</sup> and Leichsenring.<sup>16</sup> However, this meta-analysis adds to the literature for several reasons. First, more rigorous inclusion criteria were applied. As a consequence, only a minority of studies included in previous meta-analyses were regarded as adequate for inclusion in this meta-analysis. Second, studies of IPT were not included because the relation of IPT to STPP is controversial. Empirical results seem to support the exclusion of IPT from a meta-analysis of STPP.<sup>10</sup> Thus, the database of this meta-analysis is different from those of previous meta-analyses. Third, 76% of more recently published studies included in this meta-analysis had not yet been included in other meta-analyses of STPP. Fourth, the stability of effects of STPP was assessed by studying the pre-treatment and posttreatment effects and the effects yielded in follow-up studies.

According to the results, STPP yielded significant and large effect sizes. With regard to between-group effect sizes, which allow for a stricter test of efficacy and are more appropriate to the fact that only RCTs were included, STPP was significantly superior to no treatment and TAU. No difference was found between STPP on the one hand and CBT or other psychotherapies on the other concerning changes in target problems, general psychiatric problems, and social functioning. These results differ in part from those reported by Svartberg and Stiles,<sup>6</sup> who found STPP to be superior to no-treatment controls but inferior to alternative psychotherapies.<sup>6</sup> The discrepant results can be explained by the selection of studies. In our meta-analysis, only studies were included that fulfilled rigorous inclusion criteria that, among other things, ensured that STPP was delivered competently. The results of this meta-analysis are consistent with those of the meta-analysis of Wampold et al,<sup>15</sup> who did not find differences between bona fide methods of psycho-

**Table 3. Between-Group Effect Sizes of STPP vs Other Forms of Psychotherapy and STPP vs TAU and Waiting-List Controls**

Outcome Area	Between-Group Effect Sizes (No. of Studies)	
	STPP vs Other Psychotherapies	STPP vs Waiting-List Controls/TAU
Target problems (pre-post)	0.04 (15)	1.17 (7)*
Target problems (pre-fu)	0.23 (14)	0.94 (3)†
General psychiatric symptoms (pre-post)	-0.04 (14)	0.70 (5)*
General psychiatric symptoms (pre-fu)	0.08 (12)	0.64 (1)†
Social functioning (pre-post)	-0.22 (10)	0.59 (4)‡
Social functioning (pre-fu)	0.02 (7)	0.87 (1)†

Abbreviations: pre-post, pretherapy vs posttherapy assessment; pre-fu, pretherapy vs follow-up assessments; STPP, short-term psychodynamic psychotherapy; TAU, treatment as usual.

\* $P < .01$  ( $t$  test for independent samples).

†No tests of significance were performed because of the small number of studies.

‡ $P < .05$  ( $t$  test for independent samples).

therapy. The insignificant differences in effect size between STPP and other forms of psychotherapy found in this meta-analysis correspond in magnitude quite well to the data reported by Grissom,<sup>75</sup> who found a mean difference in effect size of 0.23 between different forms of psychotherapy.

Effect sizes can be transformed into percentages of nonoverlap.<sup>37,76,77</sup> According to these results, patients treated with STPP are better off with regard to their target problems than 92% of the patients before therapy. At follow-up, which was on average 13 months after termination of therapy, they were better off than 95% of the patients. As an effect size of 1.00 corresponds to a success rate of 72%, clearly more than 72% of the patients were successfully treated with STPP.<sup>77</sup> These results are highly relevant for clinical practice. This is true for another result as well. Comparing the effect sizes yielded at the end of therapy and follow-up, the effects of STPP proved to be stable and even tended to increase. This result is consistent with that reported by Anderson and Lambert,<sup>7</sup> who found a slight superiority of STPP at follow-up assessment. The effects of CBT also were maintained to a high degree at follow-up.

For a valid evaluation of the efficacy of STPP, follow-up assessments seem to be necessary, as can be illustrated by the following example. In 2 RCTs, significant improvements in bulimia nervosa after STPP were found.<sup>45,46,78</sup> In the central measures specific to bulimia nervosa (ie, bulimic episodes and self-induced vomiting), STPP was as effective as CBT.<sup>45,46,78</sup> Apart from this, CBT was superior to STPP on some other measures of psychopathology.<sup>45,46</sup> However, a follow-up study of the sample of Fairburn et al<sup>45</sup> that used a longer follow-up period found that both forms of therapy (STPP and CBT) proved to be equally effective and partly superior to a behavioral form of therapy.<sup>78</sup> Results like this can only be detected by long-term follow-up studies.

In this meta-analysis, TAU yielded effect sizes between those of psychotherapy and no treatment. These results are consistent with the overall findings according to which “the ranking for therapeutic success is generally therapy, placebo, and control (do nothing or wait).”<sup>75</sup> Treatment as usual generally can be expected to be superior to placebo and inferior to psychotherapy. The relatively large effect sizes of TAU found in this meta-analysis can be attributed to the study of Gowers et al,<sup>47</sup> which reported large effect sizes in target problems (1-year follow-up, 1.20; 2-year follow-up, 1.71) and measures of social functioning (2-year follow-up, 0.95). These large effect sizes achieved by TAU may be explained by the fact that some of the control patients of this study had “received extensive treatment elsewhere.”<sup>47(p165)</sup> In this study, patients with anorexia nervosa were treated, and outcome was assessed by weight gain and physical, nutritional, social, and sexual adjustment and mental state (Morgan and Russel scores). In this case, an “extensive” TAU, as described by the authors, can be expected to be relatively effective.

The studies reviewed herein refer to RCTs of STPP in specific psychiatric disorders (Table 1). However, for some specific psychiatric disorders, there are no RCTs of STPP at all. This is true for dissociative disorders, and for some specific forms of personality disorders (eg, compulsive, avoidant, and narcissistic). This is also true for CBT; however, to our knowledge, there are no studies of CBT in the treatment of dissociative and conversion disorder. With regard to personality disorders, only studies of CBT in avoidant and borderline personality disorder exist.<sup>79,80</sup> Furthermore, for some forms of anxiety disorders, RCTs of STPP are needed. For panic disorder and agoraphobia, only RCTs in which STPP was combined with pharmacological treatment exist.<sup>81-83</sup> This is also surprising, as anxiety is one of the central concepts of psychoanalytic and psychodynamic theory and therapy.<sup>84</sup> With regard to generalized anxiety disorder, the study of Durham et al<sup>85</sup> comparing STPP and CBT did not fulfill the inclusion criteria of this meta-analysis (no manual for STPP, no specific training of therapists, no checks of adherence to and competence for STPP). In addition, STPP and CBT were not equally carefully performed. In that study, STPP served as a kind of control group or a “straw man.” As Smith et al<sup>86</sup> put it:

A comparison therapy might be set up as a kind of straw man over which the favored therapy would prevail. The comparison therapy (often an ‘insight therapy’) would be treated with fairly obvious disdain and would be given not much opportunity for success.

This is known as the investigator-allegiance effect.<sup>86,87</sup> Furthermore, studies of STPP in children and adolescents are urgently needed.<sup>88</sup> Studies of STPP can be one aspect of what Kazdin<sup>88</sup> called a research agenda for child and adolescent psychotherapy.

In the studies reviewed herein, different models of STPP were applied. It is an interesting question, if and how they empirically differ, as “brand names of therapy can be misleading.”<sup>10</sup> Studies addressing this problem are relevant for consideration if some of the different models of STPP are close enough to be lumped together. Ablon and Jones<sup>10</sup>

recently compared CBT and IPT as they were performed in the National Institute of Mental Health Treatment of Depression Study. According to the results, both forms of therapy adhered most strongly to the ideal prototype of CBT. In addition, adherence to the CBT prototype yielded more positive correlations with outcome measures across both types of treatment. However, STPP was not included in this comparison. Thus, it is not clear how STPP, CBT, and IPT empirically differ with regard to therapist behavior. Comparing prototypic sessions of different variants of STPP empirically would be a very interesting and promising project of research. Other forms of therapy (eg, CBT) should be included.

The studies evaluated in this meta-analysis did not include comparisons with pharmacological treatments. There are only a few randomized controlled studies that examined the effects of a combination of STPP and pharmacological treatments. In the RCT of Zitrin et al<sup>82</sup> and Klein et al,<sup>81</sup> STPP and CBT were combined with imipramine hydrochloride in the treatment of phobias. According to the results, STPP and CBT were equally effective in the treatment of agoraphobia, mixed phobia, and simple phobia.<sup>81</sup> In this study, however, no manual of STPP was used. In the study of Wiborg and Dahl,<sup>83</sup> STPP combined with clomipramine hydrochloride was more successful in the treatment of panic disorder at follow-up than an exclusive treatment with clomipramine. In this study, 80% of the sample had panic disorder and agoraphobia. In 2 studies, the combined treatment of STPP and antidepressives was more successful than the pharmacological treatment alone.<sup>89,90</sup> However, in the study reported by de Jonghe et al,<sup>89</sup> and Kool et al,<sup>91</sup> this was true only for patients with a comorbid personality disorder. In the mega-analysis of DeRubeis et al,<sup>92</sup> CBT was as effective as pharmacological therapy in the treatment of severe depression. According to the mega-analysis of Thase et al,<sup>93</sup> the combined treatment of psychotherapy (CBT or IPT) and antidepressives was more successful in severe depression than was psychotherapy alone. In milder depression, psychotherapy and the combined treatment were equally effective. With regard to STPP, further studies of STPP are necessary that examine the combined treatment compared with STPP alone and pharmacological treatment alone.

According to the results of this and other meta-analyses, STPP is an effective treatment of psychiatric disorders and yields stable results. Further research should study not only the effects of STPP in specific psychiatric disorders but also the active ingredients of STPP. In addition, the active ingredients of STPP should be compared with other forms of therapy, eg, CBT. Furthermore, effectiveness studies should address whether the methods of therapy that have proved to work in RCTs are effective in the field. Data on health economics also should be included.

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