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Short-Term Psychodynamic Psychotherapy for Somatic Disorders

Systematic Review and Meta-Analysis of Clinical Trials

Allan Abbass[a] Stephen Kisely[b–d] Kurt Kroenke[e]

[a]Department of Psychiatry, Centre for Emotions and Health, and Departments of [b]Community Health and Epidemiology and [c]Psychiatry, Dalhousie University, Halifax, N.S., Canada; [d]School of Medicine, Griffith University, Meadowbrook, Qld., Australia; [e]Regenstrief Institute, Indiana University School of Medicine, Indianapolis, Ind., USA

Key Words
Psychotherapy, short-term · Somatoform · Psychotherapy, psychodynamic · Psychotherapy, psychosomatic · Psychophysiologic disorders

Abstract
Background: Somatic symptom disorders are common, disabling and costly. Individually provided short-term psychodynamic psychotherapies (STPP) have shown promising results. However, the effectiveness of STPP for somatic symptom disorders has not been reviewed. ***Methods:*** We undertook a systematic review of randomized controlled trials and controlled before and after studies. The outcomes included psychological symptoms, physical symptoms, social-occupational function, healthcare utilization and treatment continuation. ***Results:*** A total of 23 studies met the inclusion criteria and covered a broad range of somatic disorders. Thirteen were RCTs and 10 were case series with pre-post outcome assessment. Of the included studies, 21/23 (91.3%), 11/12 (91.6%), 16/19 (76.2%) and 7/9 (77.8%) reported significant or possible effects on physical symptoms, psychological symptoms, social-occupational function and healthcare utilization respectively. Meta-analysis was possible for 14 studies and revealed significant effects on physical symptoms, psychiatric symptoms and social adjustment which were maintained in long-term follow-up. Random-effect modeling attenuated some of these relationships. There was a 54% greater treatment retention in the STPP group versus controls. ***Conclusion:*** STPP may be effective for a range of medical and physical conditions underscoring the role of patients' emotional adjustment in overall health. Future research should include high-quality randomized and clinical effectiveness studies with attention to healthcare use and costs.

Introduction

Half of all outpatient medical visits are related to somatic complaints, of which at least one third to one half are medically unexplained [1]. Many are individual physical symptoms, such as pain (e.g. low back, joint, chest, abdominal, headache) and nonpain (e.g. fatigue, dizziness, palpitations) complaints. Others consist of a cluster of somatic symptoms for which the etiology is poorly understood, such as irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome, temporomandibular disorder and interstitial cystitis. These functional somatic syndromes often overlap and are similar in terms of psychiatric comorbidity, functional impairment and family history [2–4].

Distressing somatic symptoms are also increased 2- to 3-fold in patients with depressive and anxiety disorders [5, 6]. More recently, it has also been shown that disease-specific somatic symptoms in patients with a variety of

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Dr. Allan Abbass
5909 Veterans Memorial Lane, Room 8203
Abbie J. Lane Building, QEII Health Sciences Center
Halifax, NS, B3H 2E2 (Canada)
Tel. +1 902 473 2514, Fax +1 902 473 4545, E-Mail allan.abbass@dal.ca

medical disorders are influenced as much by psychological factors as by the severity of the underlying medical disorder [7, 8]. While some patients with medically unexplained symptoms meet criteria for somatoform disorders, the boundaries are not always clear-cut between somatoform symptoms and the distressing and persistent somatic symptoms experienced by patients with functional somatic disorders, depression, anxiety and even some medical conditions [8].

The treatment of somatoform disorders and related conditions manifested by poorly explained somatic symptoms has been covered in several recent comprehensive reviews [9–15]. Cumulatively, these reviews confirm that 2 of the most evidence-based treatments are cognitive-behavioral therapy (CBT) and antidepressants. Too few studies of other treatments were then found to lend themselves to a meta-analysis.

Unresolved unconscious emotional issues have long been considered an important causal factor in a range of physical illnesses and somatic symptom disorders [16]. In clinical practice, psychodynamic psychotherapies focus on this unconscious process by which emotions translate into somatic symptoms, somatic focus and, indeed, objectively measurable physical sequelae.

Short-term psychodynamic psychotherapies (STPP) are a group of brief therapy methods developed over the past 50 years by proponents including Mann, Sifneos, Malan and Davanloo [17]. Some STPP methods aim for insight into various unconscious phenomena, while others seek to address alexithymia, or difficulty identifying and experiencing emotions. With these different goals, technical differences have developed over time, with some methods being more versus less focused on emotional experiencing. They share the common goals of making unconscious phenomena conscious and working through underlying conflicts.

The efficacy of STPP across a range of common mental disorders was reviewed in 2 recent meta-analyses [18, 19]. There are limitations to the generalizability of these findings to the treatment of somatic disorders. One review only included a single study with somatoform disorders [18], and the other excluded studies with formal psychotherapy treatment controls. Both reviews were restricted to RCTs of individual STPP methods. Thus, the great majority of all STPP studies for somatic symptom disorders have never been reviewed. The purpose of this paper was to critically review and meta-analyze, where appropriate, data from studies using both RCT and non-RCT designs in order to examine the effectiveness of STPP in patients with somatic symptom disorders.

Methods

Selection of Studies

We included studies of STPP therapies in somatic symptom disorders covering both medically explained and unexplained symptoms without regard to the presence of a formal psychiatric disorder to better reflect the case mix seen in general medical settings. We included both RCTs as well as before and after studies such as mirror designs of the same subjects. Studies of STPP delivered in either individual or group format were included.

Search Strategy

We searched PsycInfo from 1967 to the present, Medline from 1966 to the present and the Cochrane Library from 2005 to the present up to July 2007. Many papers had been found in a previous broad search conducted for a Cochrane review of STPP therapies for mental disorders [19]. Our strategy included broad searches with the following terms: psychotherapy, psychodynamic, dynamic or short-term therapy and clinical trial, naturalistic study, or randomized trial and 37 specific terms, such as chest pain, abdominal pain and headache. We searched for further trials by scrutinizing the reference lists of initial studies identified and other relevant review papers. We also contacted selected authors and experts. Two reviewers (A.A. and S.K.) independently extracted data. Two reviewers collated and independently assessed abstracts.

Study Description

The studies were reviewed for treatment characteristics, study methodology, sample characteristics, outcome measures, and reported results on primary indices under the categories psychological symptoms, somatic symptoms, social-occupational functioning and healthcare utilization. We specifically noted which studies were manualized, which had adherence ratings and which had blinded ratings of outcome. For RCTs, we used the Cochrane Collaboration Depression Anxiety and Neurosis (CCDAN) quality rating scale to numerically rate the study quality. This 23-item scale includes a broad range of indicators such as allocation concealment and sample size and has a maximum value of 46.

Meta-Analysis

Where appropriate, we combined the results of the studies using meta-analysis. We used Review Manager version 4.1, a statistical software package for managing and analyzing a Cochrane Collaboration systematic review, for our analysis. We divided the outcomes into short-term (up to 3 months), medium-term (3–9 months) and long-term (>9 months), and measured effect size (ES) using standardized mean differences (SMD). We defined ES as small (ES = 0.20–0.49), medium (ES = 0.5–0.79) and large (ES $\geq$0.8) [20]. We assessed significance using 95% confidence intervals (CI) and heterogeneity with the Q and I^2 statistic. A value >50% for the I^2 statistic indicates heterogeneity. We evaluated publication bias using the fail-safe N statistic. This is the number of nonsignificant studies that would be necessary to reduce the ES to a negligible value of 0.10. This was calculated applying the WinPepi statistical package [21].

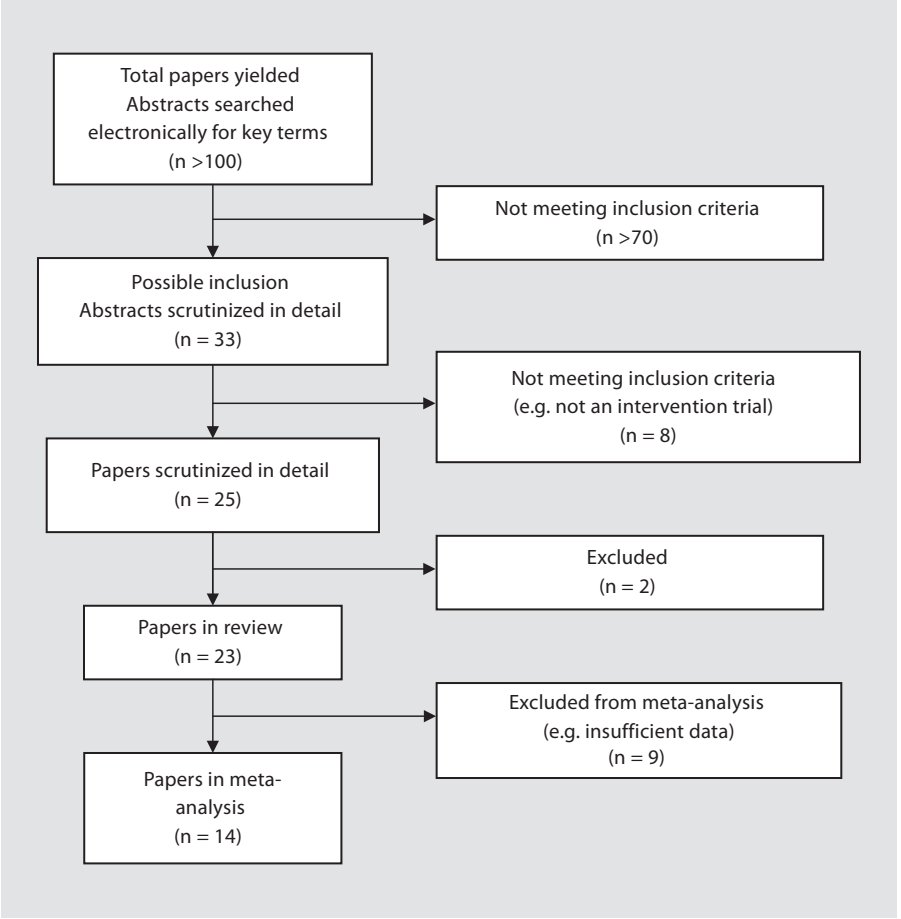

Fig. 1. Number of papers yielded by search strategy in systematic review.

Results

Study Inclusion Criteria and Characteristics

We found >100 citations of interest in the initial electronic searches, of which 33 papers were potentially relevant and subjected to strict eligibility assessment. Of these, we excluded 8 which did not meet our inclusion criteria and 2 which were duplicate publications (fig. 1). The 23 eligible studies included 13 RCTs and 10 pre-post studies. Eighteen focused on specific symptoms or symptom clusters, while 5 studied general somatic symptoms or clusters of disorders. Although 15 studies cited specific STPP models, only 6 described manualized treatments and 6 noted adherence verification. Nine had blinded ratings of outcome. The CCDAN quality ratings averaged 26.5 (SD = 7.3, range 16–36), suggesting moderate study quality. These studies were performed in 10 different countries over the past 25 years.

Patients

There were a total of 1,870 subjects (study range = 10–342), of which 873 (range = 10–87) received STPP and 535 (range = 22–257) served as controls. The investigations included a mean of 77 (SD = 63) patients. The patients averaged 41.3 years of age (SD = 10), and 57.8% (SD = 26) were female.

Conditions

The sample was comprised of 13 different medical conditions affecting various major systems including dermatological, neurological, cardiovascular, respiratory, gastrointestinal, musculoskeletal, genitourinary and immunological systems. Six studies involved patients with chronic pain. Some included somatic disorders, such as irritable bowel syndrome and chronic pain, which are known to have moderately strong associations with psychological factors. Others considered medical conditions which, though manifested by somatic symptoms,

are less clearly linked to emotional dysregulation, such as Crohn's disease, coronary artery disease, emphysema, bronchitis and Sjögren's syndrome.

Outcomes

The majority of all measured outcomes showed benefits in either RCTs or pre-post studies. Twenty-one (91.3%) reported significant (n = 17) or possible (n = 4) symptom benefits related to the main physical condition. Eleven of 12 (91.6%) observed significant (n = 9) or possible (n = 2) social-occupational function improvements. Sixteen of 21 (76.2%) found significant (n = 13) or possible (n = 3) psychological symptom benefits. Finally, 7 of 9 (77.8%) reported significant (n = 6) or possible (n = 1) reductions in healthcare utilization. An outcome possibly worse than the control was reported in only the bronchitis/emphysema study [22] on some of the symptom measures. In this study, more STPP patients had stopped smoking, perhaps leading to withdrawal, anxiety or depressive symptoms.

Long-term follow-up in this set of studies was the norm. Nineteen (82.6%) had follow-up of the treated cases. The average duration of follow-up was 19.6 months (SD = 16) with a range of 1.5 to 60 months.

Meta-Analyses

Fourteen studies provided usable data for meta-analyses. We did not include data from a 15th study [23] as this was a report on peptic ulcer from 1983, i.e. before the introduction of triple therapy for the eradication of *Helicobacter pylori*. The remainder either did not have outcomes fitting our categories or did not present data in a useable format. The numbers for individual studies vary according to the outcome (e.g. depression, anxiety, somatic and general psychiatric symptoms) and length of follow-up (e.g. short-, medium- and long-term).

With respect to short-term outcome (0–3 months), the fixed-effect model showed moderate improvements (ES = 0.58–0.78) relative to controls for general psychiatric symptoms, depression, anxiety and somatic symptoms (fig. 2). All these results were significant. The random-effect model yielded similar results except for somatic symptoms, where the difference marginally failed to reach significance (SMD = –0.79, 95% CI = –1.69 to +0.18; Z = 1.94, p = 0.051).

There were significant differences of at least moderate magnitude in the medium-term outcome for general psychiatric symptoms (SMD = –0.56, 95% CI = –0.81 to –0.31; Z = 4.35, $p < 0.0001$), depression (SMD = –0.84, 95% CI = –1.34 to –0.35; Z = 3.31, $p < 0.001$), anxiety (SMD = –1.00, 95% CI = –1.51 to –0.50; Z = 3.89, p = 0.0001) and somatic symptoms (SMD = –0.87, 95% CI = –1.37 to –0.38; Z = 3.45, $p < 0.001$) using the fixed-effect model. The random-effect model produced similar results for all outcomes.

The difference between intervention and control groups was maintained in the long-term follow-up (>9 months) for the fixed-effect model (fig. 3). There were also significant differences using the random-effect model for general psychiatric symptoms (SMD = –1.45, 95% CI = –2.87 to –0.03; Z = 2.00, p = 0.05). However, there were no significant differences after 9 months between intervention and control groups using the random-effect model for depression (SMD = –1.48, 95% CI = –3.57 to 0.61; Z = 1.32, p = 0.19), anxiety (SMD = –1.53, 95% CI = –3.42 to 0.37; Z = 1.47, p = 0.14) or somatic symptoms (SMD = –2.21, 95% CI = –5.49 to 1.07; Z = 1.32, p = 0.19).

Only 3 studies considered social adjustment or disability and the fixed-effect model showed modest, significant improvements relative to controls in the short-term (SMD = –0.65, 95% CI = –0.91 to –0.40; Z = 3.96, $p < 0.001$) and long-term outcomes (SMD = –0.69, 95% CI = –0.96 to –0.43; Z = 3.60, $p < 0.001$). The random-effect model produced identical results.

Ten studies provided data for dropout from STPP treatment versus control conditions. The rates of dropout were significantly higher in the control groups (OR = 1.54, 95% CI = 1.06–2.25; Z = 2.25, p = 0.02), suggesting STPP patients were 54% more likely to stay in treatment.

Heterogeneity

Although the number of studies that reported any given outcome was small, we calculated formal tests of heterogeneity. These were significant in the majority of all our meta-analyses. They were only nonsignificant for medium-term outcomes and social adjustment. Similarly, the I^2 statistic was consistently >50% for both short- and long-term outcomes, although less so for medium-term ones. The results of our meta-analyses should therefore be interpreted with caution.

Sensitivity Analyses

We conducted sensitivity analyses of the effect of only including RCTs [24–26, 29, 32–35, 37]. The fixed-effect model results remained significant for all outcomes. Using the random-effect model, the medium-term outcomes were unaltered, but the results were no longer significant for any of the short- or long-term outcomes.

Restricting the analyses to studies with high CCDAN scores, defined as a value greater than the midpoint of the

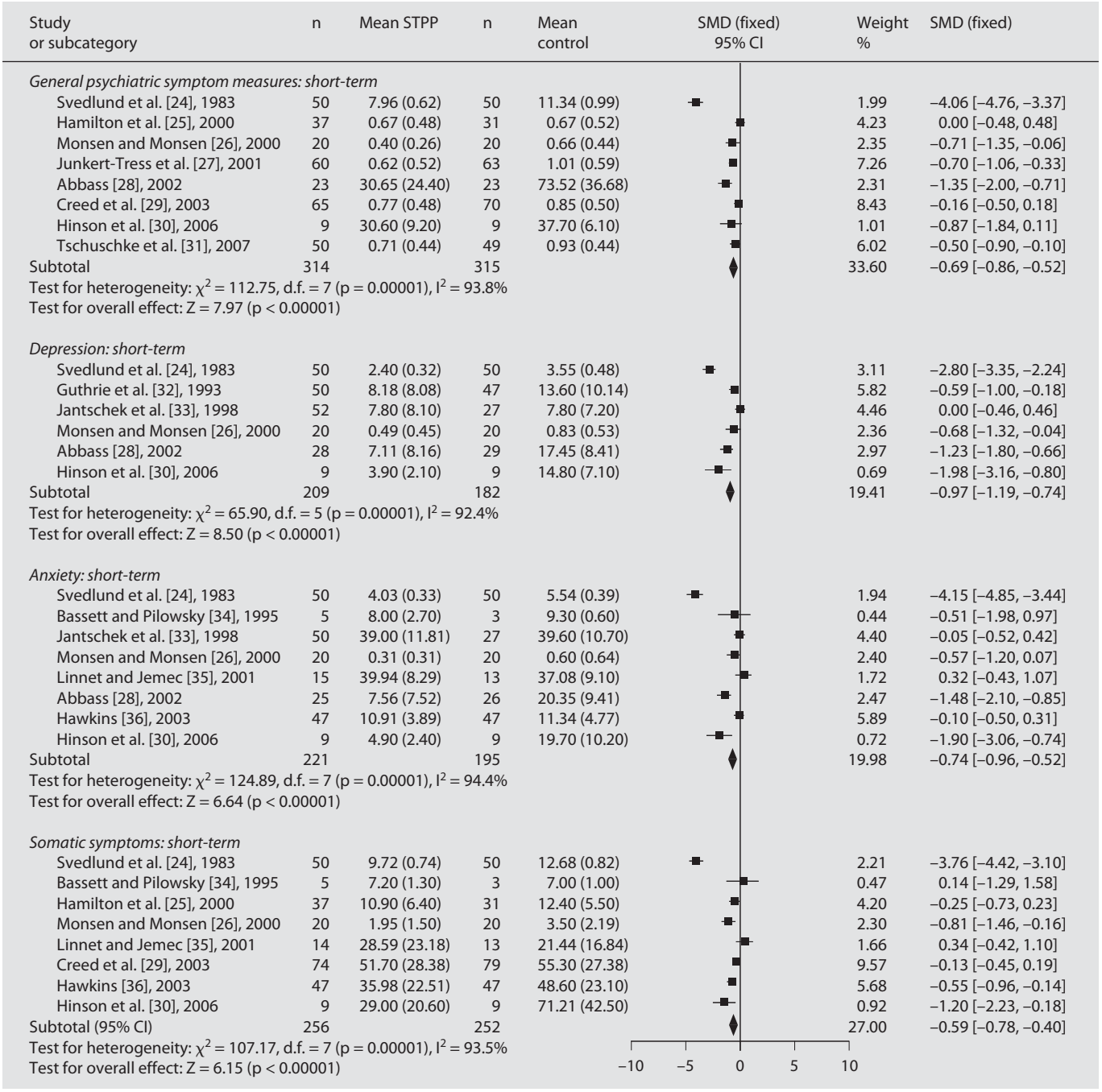

Fig. 2. Meta-analysis of short-term outcomes. Figures in parentheses are SD and values in square brackets represent 95% confidence limits.

scale (>18), gave identical results to considering only RCTs.

We also conducted a sensitivity analysis to examine the effects of emotion-focused versus insight-based, or interpersonally focused, approaches, by meta-analyzing studies that emphasized emotional experiencing in their technical description [26, 28, 30, 36, 37]. The effects using both the fixed- and random-effect models were significant with medium to large ES on all measures in the short-term (fixed-effect sizes = 0.60–1.10) and medium-

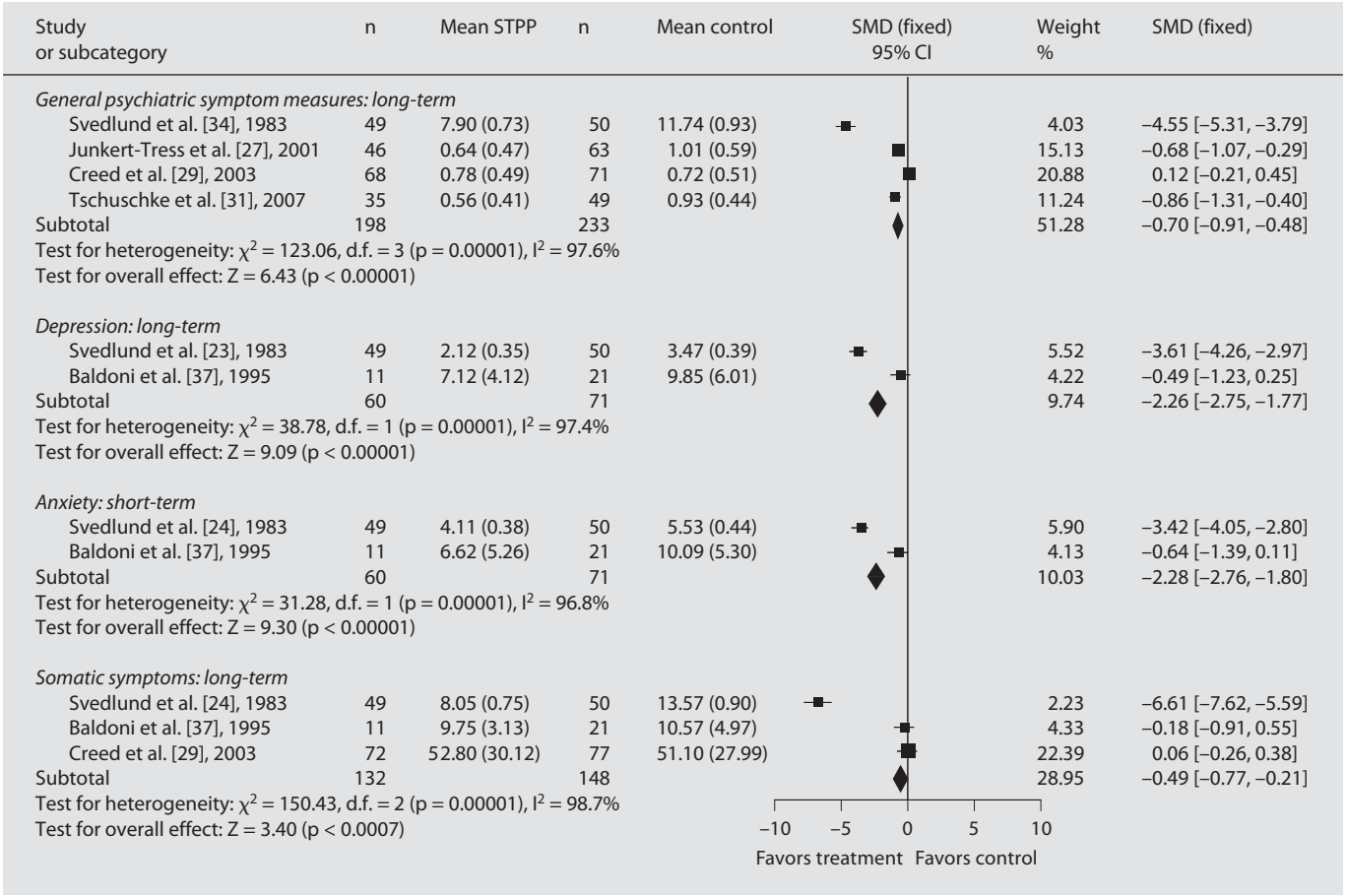

Fig. 3. Meta-analysis of long-term outcomes. Figures in parentheses are SD and values in square brackets represent 95% confidence limits.

term results (fixed-effect sizes = 0.81–1.31). There were insufficient studies to undertake meta-analyses of the long-term outcomes.

Finally, we conducted sensitivity analyses of the effect of only including studies with evaluation of therapy adherence [25–29, 33]. The fixed-effect model results remained significant for all outcomes. Using the random-effect model, the results were significant for general psychiatric symptoms (SMD = −0.54, 95% CI = −0.96 to −0.12; Z = 2.53, p = 0.01) and depression (SMD = −0.60, 95% CI = −1.09 to −0.11; Z = 2.42, p = 0.02) but not anxiety or somatic symptoms in the short-term. There were insufficient studies to undertake meta-analyses of the medium- and long-term outcomes.

Publication Bias

The fail-safe N for short-term effectiveness ranged between 41 and 56, depending on the outcome, suggesting that these findings were reasonably robust against publication bias. For medium-term outcomes, the fail-safe N was between 16 and 19, indicating that these results were more subject to publication bias. In the long-term follow-up, our findings for depression and anxiety (fail-safe Ns of 42 and 44, respectively) were more robust against publication bias than those for general psychiatric and somatic symptoms (fail-safe Ns of 14 and 12, respectively). When we calculated the fail-safe N for our sensitivity analyses, the numbers were reduced for the short-term outcomes, but there was little effect on the medium- to long-term outcomes where meta-analyses were possible. For instance, the fail-safe N for short-term effectiveness from RCTs ranged between 29 and 38.

Other Studies and Findings

Nine studies did not meet criteria for inclusion in the meta-analysis, yet provided preliminary evidence supporting STPP for a range of conditions (table 1).

Despite known bacteriological causes of ulcer, Sjodin [23] found that STPP brought sustained gains compared to medical treatment as usual in ulcer patients.

Bassler et al. [45] studied a 12-week inpatient treatment program for chronic 'psychogenic' pain that included individual and group STPP. Sixty percent of the patients reported amelioration of pain symptoms. Those who intellectualized and rationalized more had less response to treatment, highlighting the purported role of emotional experiencing in bringing symptom amelioration.

Case series for physical symptoms yielded improvement rates of 76–90% [42–44]. Ventegodt et al. [47], using a combination of STPP and 'body work', found significant symptom improvements in a mixed group of physically ill patients, although a large portion of the sample was lost to follow-up.

Two studies [38, 41] examined the impact of STPP on alexithymia. Beresnevaite [41] found that reductions in alexithymia were associated with fewer cardiac events in 2-year follow-up of patients with coronary artery disease. While the treatment and control groups did not significantly differ in degree of alexithymia at posttreatment, the STPP group had no hospitalizations plus reduced reports of angina whereas the controls had 4 hospitalizations for angina. Poulsen [38] found that rheumatoid arthritis and Sjögrens' syndrome patients treated with group STPP had lower alexithymia ratings compared to controls at posttreatment, but they did not have pretreatment measurements.

Reduced hospitalization rates compared to controls were reported in studies of STPP for coronary artery disease [41] (χ^2, $p < 0.01$), Crohn's disease [39] ($p = 0.03$) and chronic respiratory disease [22] (χ^2, $p < 0.001$). Two trials reported trends toward reduced surgical procedures in ulcer disease [23] ($p = 0.07$) and in Crohn's disease [33], where 15% of the STPP patients vs. 26% of the controls required surgery ($p = 0.27$).

Discussion

Within the limitations of study quality and the effects of heterogeneity on statistical interpretability, the evidence from this review suggests that STPP methods show promise as adjunctive or solo treatments for a range of somatic problems [48]. In addition to reducing physical and psychological symptoms, these brief treatments appeared to improve treatment compliance as well as social-occupational function and reduce healthcare utilization. These improvements were noted in the majority of studies as measured by blinded clinicians, unblinded clinicians, and patient self-ratings.

These results compare favorably to a similarly conducted review of CBT for somatic disorders [10]. This trial included 29 RCT and 2 non-RCT studies of diverse conditions with a variety of CBT methods and group and individual formats. In this review, only 9 stated they used manuals and 7 had adherence ratings. They found definite or possible symptom benefits in 82%, functional benefits in 73% and psychological benefits in 46% of the included studies.

Likewise, 91.3% of the STPP studies showed at least some benefit (on ≥ 1 parameter) for these patient populations, compared to 69% of the antidepressant research in a systematic review of 94 randomized trials [9]. Moreover, the antidepressant studies were only short-term, with a median duration of 9 weeks, compared to the long-term follow-up in the majority of the STPP studies. Recent literature syntheses confirm that CBT and antidepressants are among the most evidence-based treatments for somatic symptom disorders [13, 14]. Our findings suggest STPP may be another valuable therapeutic option.

Emotional factors, including reduced alexithymia, building awareness of unconscious processes and emotional experiencing are possible or probable treatment factors rendering these therapies effective. This notion is bolstered by our subanalysis showing strong effects when studying the more emotion-focused STPP models. This finding concurs with a recent meta-analysis of 10 STPP studies of diverse conditions according to which outcome correlated with emotional focus [49]. Comparative evaluations of the more emotion-focused versus insight-based models are warranted to test the hypothesis that emotional experiencing has a central healing effect in these somatic disorders, as this research suggests.

The somewhat positive results of this review should be interpreted within the following limitations. First, the included studies were of variable methodological quality, conducted with a broad range of scientific rigor. Second, there is a high probability of selection bias in some of the studies, although in the 13 RCTs the use of randomization should have mitigated between-group differences as a confounder. Third, there is possible reporting bias, where striking positive (stopping smoking) or negative events (vagotomy surgery) would be more likely reported

Table 1. STPP study designs and outcomes

Authors	Subjects at baseline		Age years	Female %	STPP model	Number of sessions	Follow-up months	Control	Outcomes (somatic/ S-O function/psychological/healthcare utilization)			
	total	STPP										
Randomized trials												
Rosser et al. [22], 1983 Chronic bronchitis and emphysema	33	16	66	38	Malan	8	6	medical treatment	+/0/–	+/0	0/–	+
Svedlund et al. [24], 1983 Irritable bowel syndrome	101	50	24	70	Malan	≤10	15	medication, anxiolytics	+	+	+	+
Sjodin [23], 1983 Ulcer disease	103	50	45.5	39	Malan	≤10	3, 12	medication	+	+	+	0
Basssett and Pilowsky [34], 1985 Chronic pain	22	14	40.8	17	not defined	12	6, 12	supportive cognitive therapy	0	+/0	0	
Poulsen [36], 1991 Rheumatoid arthritis, Sjögren's syndrome	46	23	51.9	90	group-analytic	12	9	no treatment	+		+/0	
Guthrie et al. [32], 1993 Refractory irritable bowel syndrome	102	53	47	86	Hobson	7	3	supportive therapy	+	+	+	+
Baldoni et al. [37], 1995 Urethral syndrome/pelvic pain	36	13		00	Davanloo, Malan	14–16	6, 48	treatment as usual	+	+	+	
Jantschek et al. [33], 1998 Keller et al. [39], 2004 Deter et al. [40], 2007 Crohn's disease	108	71	16–55	NA	Luborsky, relaxation	10+	6, 12, 24	medical treatment	0	0	0	+
Hamilton et al. [25], 2000 Chronic functional dyspepsia	77	37	40	59.5	Hobson	8	12	supportive therapy	+		+/0	0
Monsen and Monsen [26], 2000 Chronic pain	40	20	45.5	35	affect-focused	33	12	treatment as usual	+	+	+	
Beresnevaite [41], 2000 Coronary heart disease	40	20	51.8	5	group	16	6, 12, 24	education group	+/0		+	+/0
Linnet and Jemec [35], 2001 Atopic dermatitis	32	16	28.3	23	Malan	15.5	12	medical treatment	0		0	
Creed et al. [29], 2003 Irritable bowel syndrome	257	85	18–65	NA	Hobson	8	12	treatment as usual	+/0	+	+/0	+
Pre-post studies												
Barnat [42], 1981 Refractory headache		79	36	75.9	individual STPP	5			+			+
Sifneos [43], 1973 Physical symptoms		14			Sifneos				+			
Nielsen et al. [44], 1988 Physical symptoms		10	33.4	70	Sifneos, Malan	22	24		+		+	
Bassler et al. [45], 1994 Chronic pain		50	36.2	68	individual, group	12	1.5		+		+	
Junkert-Tress et al. [27], 2001 Somatoform mixed		87	36	55	Strupp, Binder		60		+		+	
Abbass [28], 2002, [46], 2003 Somatoform mixed		33	40.6	63.6	Davanloo	18.6	12, 36		+	+	+	+
Hawkins [36], 2003 Chronic pain		47	46	64	Davanloo, group	8			+		0	
Hinson et al. [30], 2006 Movement disorders		10	31	77.7	Davanloo	12			+	+	+	
Tschuschke et al. [31], 2007 Somatoform disorders		50	42.5	62	STPP Group	20	6, 12		+		+	
Ventegodt et al. [47], 2007 Chronic pain		31			STPP, body work	20	12		+	+	+	

S-O = Social-occupational. +, O and – denote STPP superior to, equal to or inferior to control or pretreatment primary measures. Blank spaces denote no data provided or not applicable.

in only some studies. Fourth, most of the treatments were neither manualized nor adherence rated to ensure treatment standardization. Fifth, only 4 and 5 of the studies in the meta-analysis had medium- and long-term follow-ups, respectively. Finally, the heterogeneity in most meta-analyses, the loss of significance in some cases using random-effect modeling and the inclusion of only 14 studies suggest that the meta-analysis results need to be interpreted with caution.

This heterogeneity may have arisen from both clinical or methodological diversity, or both, among the trials [47]. In this study clinical variation could be explained by the diversity of the psychotherapeutic interventions that were included in the review (e.g. group versus individual therapy formats), as well as of subjects in terms of diagnoses (e.g. Crohn's disease versus movement disorders) and socio-demographics (e.g. age and gender). Methodological diversity could be explained by differences between the studies in terms of design (e.g. randomized versus nonrandomized designs) or in the way the outcomes were defined and measured. We attempted to minimize heterogeneity in several ways. Firstly, we did not report combined ES for short-, medium- and long-term outcomes but reported the results for depression, anxiety and somatic symptoms separately. Secondly, we undertook sensitivity analyses restricted to randomized controlled trials, higher-quality studies and adherence-rated therapies. Thirdly, we also reported random-effect meta-analyses, which incorporate heterogeneity in their calculation.

One strength of the reviewed research is the diversity of study centers and the inclusion of both RCTs as well as case series and naturalistic studies. The latter studies offer evidence that some patients with this range of conditions can benefit in real-world settings with improvements in psychological functioning, physical symptoms and healthcare utilization. The finding that a broad range of conditions may benefit from this treatment suggests STPP may provide a general health benefit.

Greater retention rates with STPP and reduced healthcare utilization are important findings. Conditions such as movement disorders, chronic pain and headache are often treated with medications and physical procedures as first-line agents. Given the availability of brief psychotherapeutic interventions, STPP therapy might be one option clinicians could consider before embarking on more invasive or long-term alternatives.

Within the limitations of methodological and other problems within this group of studies, STPP may provide benefits across a range of physical and somatic symptom disorders. Future research should include more rigorous methods and study specific conditions while using treatment manuals with adherence ratings. Combinations of RCT and naturalistic studies measuring healthcare utilization and mortality rates are also warranted. STPP can be considered as a solo treatment for some somatic conditions and an adjunct for other physical conditions that may improve treatment retention and outcome.

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