Problem Solving Therapy

Program Snapshot

Evidence Ratings*

Effective	Depression and Depressive Symptoms
Effective	Self-Concept
Effective	Suicidal Thoughts and Behaviors
Promising	Social Competence
Promising	Non-Specific Mental Health Disorders and Symptoms
Promising	Self-Regulation
Ineffective	Physical Health Conditions and Symptoms
Ineffective	General Functioning and Well-Being
Ineffective	Anxiety Disorders and Symptoms

*Ratings definitions can be found in the appendix.

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Dissemination/Implementation Contact
National Network of PST Clinicians
UCSF
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Program Type
Mental health treatment

Gender
Male
Female

Age
13-17 (Adolescent)
18-25 (Young adult)
26-55 (Adult)
55+ (Older adult)

Geographic Locations
Urban
Suburban
Rural and/or frontier
Non-U.S.
Information not provided

Settings
Hospital / Medical Center
Outpatient Facility
School / Classroom
University

Race/Ethnicity
American Indian or Alaska Native
Asian or Pacific Islander
Black or African American
White
Other

Implementation/Dissemination
Implementation materials available
Dissemination materials available

Program Description

Problem-Solving Therapy (PST) is a brief, psychosocial treatment for patients experiencing depression and distress related to inefficient problem-solving skills. The PST model instructs patients on problem identification, efficient problem solving, and managing associated depressive symptoms. PST was originally developed in Britain in the 1970s and has been implemented throughout the United States and internationally.

PST is divided into three phases: Introduction/Education, Training, and Prevention. In the first phase, one or two sessions are spent getting to know the patient, the problems they are experiencing, how their symptoms interfere with daily activities, and if they need remedial, problem-orientation work. Additionally, patients become familiar with the PST process. In the second phase, sessions are spent encouraging the use of PST skills, which are centered around empowering patients to learn to solve problems on their own. The role of the clinician during this phase is to help the patient implement a patient-identified solution through the structured, sequential stages of PST process. These seven stages are 1) selecting and defining the problem, 2) establishing realistic and achievable goals for problem resolution, 3) generating alternative solutions, 4) implementing decision-making guidelines, 5) evaluation and choosing solutions, 6) implementing the preferred solutions, and 7) evaluating the outcome. In the final phase, one or two sessions are spent helping patients develop a relapse-prevention plan based on the PST format.

Overall, the number of PST sessions may range from between 4 and 12. Individual sessions are, on average, 40 minutes long; however, group sessions can last up to 90 minutes. Each PST session follows a typical structure of agenda setting, reviewing progress, engaging in the PST model problem-solving activities (described above), reviewing action plans, and wrap up.

PST has been adapted for use with a variety of patient populations, including those in primary care and those who are homebound, medically ill, and elderly. These two particular treatment models, Problem-Solving Therapy for Primary Care (PST-PC) and Problem-Solving Therapy in Home Care (PST-HC) incorporate the standard PST procedures for treatment of depression.

Evaluation Findings by Outcome

OUTCOME: DEPRESSION AND DEPRESSIVE SYMPTOMS

PROGRAM EFFECTS ACROSS ALL STUDIES	This program is effective for reducing depression and depressive symptoms. The review of the program yielded strong evidence of a favorable effect. Based on 11 studies and 23 measures, the average effect size for depression and depressive symptoms is .44 (95% CI: .36, .48). Click here to find out what other programs have found about the average effect sizes for this outcome.
KEY STUDY FINDINGS	Fourteen measures of depressive symptoms across eight studies found that participants in the intervention group reported a statistically significant improvement in the severity of symptoms from pretest to posttest, compared with participants in the control group. The studies were of 1) Turkish high school and university students with a diagnosis for major depression (Eskin, Ertekin, & Demir, 2008); 2) patients with major depressive disorder attending cancer clinics (Strong et al., 2008); 3) older adults with major depression and executive dysfunction (Areán et al., 2010); 4) older hemodialysis patients (Erdley et al., 2014); and 5) Netherlands patients with emotional symptoms (Hassink-Franke et al., 2011). There were also two studies of older adults in an acute home-care setting with severe (Gellis et al., 2007) or minor (Gellis et al., 2008) depressive symptoms, and one of older adults with cardiovascular disease receiving acute home-care services who met the criteria for subthreshold depression symptoms (Gellis et al., 2010). However, four measures across three studies found no statistically significant between-group differences in the severity of depressive symptoms. One study was

	conducted in Taiwan among Chinese general medical clinic patients with common mental disorders (Liu et al., 2007). The second was conducted in Hong Kong with older Chinese patients with psychological problems (Lam et al., 2010). The third was conducted with older veterans with symptoms of emotional distress and subsyndromal depression (Kasckow et al., 2014). Strong et al. (2008) and Areán et al. (2010) reported that depression scores decreased by at least 50% from pretest to posttest for a larger percentage of patients in the intervention group, compared with those in the control group. These studies also found that the proportion of participants who experienced remission was significantly greater in the intervention group, compared with the control group. These findings were statistically significant. However, Hassink-Franke et al. (2011) found no statistically significant between-group differences in recovery of major depressive disorder.
MEASURES	Eskin, M., Ertekin, K., & Demir, H. (2008): Beck Depression Inventory; Hamilton Depression Rating Scale Strong et al. (2008): Severity of major depressive disorder, Symptom Checklist-20 (SCL-20) Depression Scale; Major depression section of the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) Areán et al. (2010): Hamilton Depression Rating Scale Erdley et al. (2014): Beck Depression Inventory; Patient Health Questionnaire-9 (PHQ-9) Liu et al. (2007): Hamilton Rating Scale for Depression (HRSD) Lam et al. (2010): Hospital Anxiety and Depression Scale (HADS), depression score (DS) Hassink-Franke et al. (2011): Primary Health Questionnaire (PHQ); Hospital Anxiety and Depression Scale (HADS) Kasckow et al. (2014): Beck Depression Inventory; Hamilton Rating Scale for Depression (HRSD) Gellis et al. (2007): Beck Depression Inventory; Geriatric Depression Scale (GDS-15) Gellis et al. (2008): Hamilton Rating Scale for Depression (HRSD); Geratric Depression Scale (GDS-15) Gellis et al. (2010): Beck Depression Inventory; Hamilton Depression Rating Scale (HAM-D)
ADDITIONAL DETAILS	This outcome was also assessed at a 3- and 6- month follow up (Gellis et al., 2007; Gellis et al., 2008); a 6- and 12-month follow up (Strong et al., 2008); a 9-month follow up (Hassink-Franke et al., 2011); and a 12-, 26-, and 52-week follow up (Lam et al., 2010). Follow-up findings are not rated and therefore do not contribute to the final outcome rating.

OUTCOME: SELF-CONCEPT

PROGRAM EFFECTS ACROSS ALL STUDIES	This program is effective for improving personal resilience/self-concept. The review of the program yielded strong evidence of a favorable effect. Based on one study and one measure, the effect size for personal resilience/self-concept is .77 (95% CI: .17, 1.37). Click here to find out what other programs have found about the average effect sizes for this outcome.
KEY STUDY FINDINGS	In a study of Turkish high school and university students with a diagnosis for major depression, Eskin, Ertekin, and Demir (2008) found that participants in the intervention group reported a statistically significant improvement in self-esteem from pretest to posttest, compared with students in the control group.
MEASURES	Eskin, Ertekin, & Demir (2008): Rosenberg Self-Esteem Scale
ADDITIONAL DETAILS	None provided.

OUTCOME: SUICIDAL THOUGHTS AND BEHAVIORS

PROGRAM EFFECTS ACROSS ALL STUDIES	This program is effective for reducing suicidality. The review of the program yielded strong evidence of a favorable effect. Based on two studies and two measures, the average effect size for suicidality is .75 (95% CI: .26, 1.00). Click here to find out what other programs have found about the average effect sizes for this outcome.
KEY STUDY FINDINGS	Turkish high school and university students with a diagnosis for major depression who participated in the intervention reported a statistically significant decrease in suicide risk (Eskin, Ertekin, & Demir, 2008), compared with students in the control group. In another study (Stewart et al., 2009), suicidal adults who participated in the intervention reported a statistically significant decrease in suicidal ideation from pretest to posttest, compared with the control group.
MEASURES	Eskin, Ertekin, & Demir (2008): Suicide Probability Scale (SPS; Turkish version) Stewart et al. (2009): Beck Scale for Suicidal Ideation (BSS)
ADDITIONAL DETAILS	None provided.

OUTCOME: SOCIAL COMPETENCE

PROGRAM EFFECTS ACROSS ALL STUDIES	This program is promising for improving social functioning/competence. The review of the program yielded sufficient evidence of a favorable effect. Based on seven studies and eight measures, the average effect size for social functioning/competence is .33 (95% CI: .18, .41). Click here to find out what other programs have found about the average effect sizes for this outcome.
KEY STUDY FINDINGS	In a study of Turkish high school and university students with a diagnosis for major depression, Eskin, Ertekin, and Demir (2008) found that those in the intervention group reported a statistically significant improvement in assertiveness from pretest to posttest, compared with the control group (Eskin, Ertekin, & Demir, 2008). In the Netherlands study on patients with emotional symptoms, Hassink-Franke et al (2011) found that social functioning improved more in the intervention group than in the control group; this finding was statistically significant. However, in studies conducted in Hong Kong with older Chinese patients with psychological problems (Lam et al., 2010) and with homebound older adults with cardiovascular disease receiving acute home-care services and meeting criteria for subthreshold depression symptoms (Gellis et al., 2010), no statistically significant group differences for social functioning were found at posttest. In two studies of older adults with severe (Gellis et al., 2007) or minor (Gellis et al., 2008) depressive symptoms in an acute home-care setting, participants in the intervention group reported a statistically significant greater problem-solving ability, compared with the control group. However, no between-group differences for problem-solving ability were found in a study conducted in the Netherlands with patients with emotional symptoms (Hassink-Franke et al., 2011) or in a study conducted with older veterans with symptoms of emotional distress and subsyndromal depression (Kasckow et al., 2014).

MEASURES	Eskin, Ertekin, & Demir (2008): Scale for Interpersonal Behavior (SIB) Lam et al. (2010): Social Functioning Scale of the 36-item Short-Form Health Survey Questionnaire (SF-36) Hassink-Franke et al. (2011): Social Functioning Scale of the 36-item MOS Short-Form Health Survey Questionnaire (SF-36); Social Problem Solving Inventory-Revised (SPSI-R) Kasckow et al. (2014): Social Problem-Solving Inventory (SPSI) Gellis et al. (2007): Social Problem Solving Inventory-Revised (SPSI-R) Gellis et al. (2008): Social Problem Solving Inventory-Revised (SPSI-R) Gellis et al. (2010): Social Function subscale of the Medical Outcomes Study Short Form
ADDITIONAL DETAILS	This outcome was also assessed at a 3- and 6- month follow up (Gellis et al., 2007; Gellis et al., 2008); at a 9-month follow up (Hassink-Franke et al., 2011); and at a 12-, 26-, and 52-week follow up (Lam et al., 2010). Follow-up findings are not rated and therefore do not contribute to the final outcome rating.

OUTCOME: PHYSICAL HEALTH CONDITIONS AND SYMPTOMS

PROGRAM EFFECTS ACROSS ALL STUDIES	This program is ineffective for improving physical health conditions and symptoms. The review of the program yielded sufficient evidence of a negligible effect. Based on five studies and eight measures, the average effect size for physical health conditions and symptoms is -.03 (95% CI: -.13, .02). Click here to find out what other programs have found about the average effect sizes for this outcome.
KEY STUDY FINDINGS	Strong et al. (2008) found that patients in the intervention group reported a statistically significant reduction in fatigue from pretest to posttest, compared with those given usual care alone; however, they did not report a significant reduction in pain.
MEASURES	Strong et al. (2008): Fatigue and Physical Functioning scores of the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ C30) Liu et al. (2007): Physical health component (PHC) of the 36-item Short-Form Health Survey Questionnaire (SF-36) Lam et al. (2010): Physical functioning scale and general health scale of the 36-item Short-Form Health Survey Questionnaire (SF-36); single item asking respondents to rate whether the intervention lead to any improvement in their general health Hassink-Franke et al. (2011): 36-item MOS Short-Form Health Survey Questionnaire (SF-36) Kasckow et al. (2014): Physical health dimension of the Medical Outcomes SF-36 scale
ADDITIONAL DETAILS	This outcome was also assessed at 6-month follow up (Strong et al., 2008). Follow-up findings are not rated and therefore do not contribute to the final outcome rating.

OUTCOME: GENERAL FUNCTIONING AND WELL-BEING

PROGRAM EFFECTS ACROSS ALL STUDIES	This program is ineffective for improving general functioning and well-being. The review of the program yielded sufficient evidence of a negligible effect. Based on 8 studies and 23 measures, the average effect size for general functioning and well-being is .01 (95% CI: -.06, .04).

	Click here to find out what other programs have found about the average effect sizes for this outcome.
KEY STUDY FINDINGS	In a study of older veterans with symptoms of emotional distress and subsyndromal depression (Kasckow et al., 2014) and in a study of homebound older adults with cardiovascular disease receiving acute home-care services and meeting criteria for subthreshold depression symptoms (Gellis et al., 2010), participants in the intervention group reported statistically significant increases in their mental health scores, compared with those in the control group. However, there were no between-group differences for mental health scores in a study conducted in Taiwan among Chinese general–medical clinic patients with common mental disorders (Liu et al., 2007), in a study conducted in the Netherlands with patients with emotional symptoms (Hassink-Franke et al., 2011), and in a study conducted in Hong Kong among older Chinese patients with psychological problems (Lam et al., 2010). Lam et al. (2010) also found no statistically significant between-group differences in the proportion of patients who felt the intervention led to any improvement in psychological health. The study conducted by Hassink-Franke et al. (2011) found statistically significant improvements in general health perception among patients in the intervention group, compared with those in the control group. However, in the study conducted by Gellis et al. (2010), there were no statistically significant between-group differences in general health perception. Lam et al. (2010) also found no statistically significant between-group differences in general health perception or in the proportion of patients who reported that the intervention led to any improvement in general health. Hassink-Franke et al. (2011) found statistically significant improvements in quality of life in the intervention group, compared with the control group. Gellis et al. (2007) also found that among older adults with severe depressive symptoms in an acute home-care setting, intervention participants reported statistically significant higher quality-of-life scores, compared with the control group. However, among older adults with minor depression in a home-care setting, no statistically significant between-group difference was found for quality of life. Several studies found statistically significant improvements in role limitation due to emotional problems (Lam et al., 2010; Gellis et al., 2010; Hassink-Franke et al., 2011), but not for role limitation due to physical problems (Lam et al., 2010; Gellis et al., 2010). Three studies found no statistically significant between-group differences in improvement in bodily pain (Strong et al., 2008; Lam et al., 2010; Gellis et al., 2010), and two studies found no statistically significant between-group differences in improvement in vitality (Lam et al., 2010; Gellis et al., 2010).
MEASURES	Strong et al. (2008): Pain score of the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ C30) Liu et al. (2007): Mental health component (MHC) of the 36-item Short-Form Health Survey Questionnaire (SF-36) Lam et al. (2010): Role-Physical, Bodily Pain, Vitality, Role-Emotional, and Mental Health Scales of the 36-item Short-Form Health Survey Questionnaire (SF-36); single items asking respondents to rate whether the intervention led to any improvement in their general or psychological health Hassink-Franke et al. (2011): Role-Emotional, General Health Perception, and Mental Health subscales of the 36-item MOS Short-Form Health Survey

	Questionnaire (SF-36); EuroQol (EQ-5D) Kasckow et al. (2014): Mental health dimension of the Medical Outcomes SF-36 Scale Gellis et al. (2007): Quality-of-Life Index (QoLI) Gellis et al. (2008): Quality-of-Life Index (QoLI) Gellis et al. (2010): General Health, Mental Health, Bodily Pain, Role-Emotional, Role-Physical, and Vitality subscales of the Medical Outcomes Study Short Form
ADDITIONAL DETAILS	This outcome was also assessed at a 3- and 6- month follow up (Gellis et al., 2007; Gellis et al., 2008), a 6- and 12-month follow up (Strong et al., 2008), a 9-month follow up (Hassink-Franke et al., 2011), and a 12-, 26-, and 52-week follow up (Lam et al., 2011). Follow-up findings are not rated and therefore do not contribute to the final outcome rating.

OUTCOME: ANXIETY DISORDERS AND SYMPTOMS

PROGRAM EFFECTS ACROSS ALL STUDIES	This program is ineffective for reducing phobia, panic, and generalized anxiety disorders and symptoms. The review of the program yielded sufficient evidence of a negligible effect. Based on four studies and five measures, the average effect size for phobia, panic, and generalized anxiety disorders and symptoms is .05 (95% CI: -.10, .13). Click here to find out what other programs have found about the average effect sizes for this outcome.
KEY STUDY FINDINGS	Two studies found a statistically significant reduction in anxiety from pretest to posttest for the intervention group, as compared with the control group. One study was conducted among patients with major depressive disorder who were attending cancer clinics (Strong et al., 2008). The other study was conducted in the Netherlands with patients with emotional symptoms (Hassink-Franke et al., 2011), and included two different measures of anxiety. Two studies, however, found no statistically significant between-group differences in reduction in anxiety. Lam et al. (2010) conducted a study in Hong Kong among older Chinese patients with psychological problems and found that anxiety decreased from baseline to posttest for both groups; however, there was no statistically significant between-group difference. Gellis et al. (2010) conducted a study among homebound older adults with cardiovascular disease receiving acute home-care services, and meeting criteria for subthreshold depression symptoms, but found no statistically significant group differences in anxiety.
MEASURES	Strong et al. (2008): Anxiety subscale of the Symptom Checklist-90 (SCL-90) Lam et al. (2010): Hospital Anxiety and Depression Scale (HADS), anxiety score (AS) Hassink-Franke et al. (2011): Primary Health Questionnaire (PHQ); Hospital Anxiety and Depression Scale (HADS) Gellis et al. (2010): Beck Anxiety Inventory (BAI)
ADDITIONAL DETAILS	This outcome was also assessed at a 6- and 12-month follow up (Strong et al., 2008), a 9-month follow up (Hassink-Franke et al., 2011), and a 12-, 26-, and 52-week follow up (Lam et al., 2011). Follow-up findings are not rated and therefore do not contribute to the final outcome rating.

OUTCOME: NON-SPECIFIC MENTAL HEALTH DISORDERS AND SYMPTOMS

PROGRAM EFFECTS ACROSS ALL STUDIES	This program is promising for reducing unspecified and other mental health disorders. The review of the program yielded sufficient evidence of a favorable effect. Based on two studies and three measures, the average effect size for unspecified and other mental health disorders is .07 (95% CI = -.16, .19). Click here to find out what other programs have found about the average effect sizes for this outcome.
KEY STUDY FINDINGS	In a study conducted in the Netherlands among patients with emotional symptoms, the intervention group showed statistically significant better recovery rates for somatoform disorder, compared with the control group (Hassink-Franke et al., 2011). However, in a study conducted in Taiwan among Chinese general medical clinic patients with common mental disorders, there were no statistically significant between-group differences for the average score on the assessment of common mental disorders. In addition, remission rates did not differ significantly between the intervention and control groups (Liu et al., 2007).
MEASURES	Liu et al. (2007): Revised Clinical Interview Schedule (CISR) Hassink-Franke et al. (2011): Primary Health Questionnaire (PHQ)
ADDITIONAL DETAILS	None provided.

OUTCOME: SELF-REGULATION

PROGRAM EFFECTS ACROSS ALL STUDIES	This program is promising for improving self-regulation. The review of the program yielded sufficient evidence of a favorable effect. Based on one study and one measure, the effect size for self-regulation is .42 (95% CI: -.16, 1.01). Click here to find out what other programs have found about the average effect sizes for this outcome.
KEY STUDY FINDINGS	In a study of Turkish high school and university students with a diagnosis for major depression, Eskin, Ertekin, and Demir (2008) found no statistically significant difference between the intervention and control groups on pretest to posttest change in self-appraised, problem-solving ability.
MEASURES	Eskin, Ertekin, & Demir (2008): Problem-Solving Inventory (PSI)
ADDITIONAL DETAILS	None provided.

Study Evaluation Methodology

ESKIN, ERTEKIN, & DEMIR (2008)

STUDY DESIGN NARRATIVE	Participants were recruited through announcements describing the symptoms of major depression, according to the DSM-IV. The announcements were placed on the boards of 10 high schools in the city of Aydin, Turkey, and at a university campus in Ankara, Turkey. Participants were randomly assigned to the intervention group or the wait-list control group.

SAMPLE DESCRIPTION	This study included a total of 46 self-referred Turkish high school and university students (27 in the intervention group and 19 in the wait-list control group). The majority of the participants were female (70%), had an urban background (76%), perceived their family income as medium (89%), and had an average of two siblings. The average age was 19 years. Over 50% were high school students (52%) and the remainder were university students. Of participants who obtained a diagnosis for major depression, two also obtained a diagnosis for social phobia, one for posttraumatic stress disorder, one for dysthymia, and another one obtained a diagnosis for specific phobia.

STEWART ET AL. (2009)

STUDY DESIGN NARRATIVE	Participants were recruited from the Psychiatric Emergency Centres of two large public hospitals in Brisbane, Australia, where they were receiving treatment for a suicide attempt. Prior to hospital discharge, participants were recruited and randomly allocated to one of three treatment groups: cognitive behavior therapy (CBT), problem-solving treatment (PST), or treatment as usual. The current review focuses on the comparison between those receiving PST and those in the treatment-as-usual group.
SAMPLE DESCRIPTION	A total of 32 participants were included in the study (11 in the CBT group, 12 in the PST group, and 9 in the treatment-as-usual group). The ages ranged from 20 to 58, with 15 males and 17 females.

STRONG ET AL. (2008)

STUDY DESIGN NARRATIVE	Participants from a regional cancer center in Scotland were randomly assigned to receive either usual care or usual care plus the intervention, with minimization for sex, age (=39, 40–79, and =80), primary cancer site (breast, colorectal, gynecological, and other), and extent of disease (disease-free after initial treatment, local disease, and metastatic disease). Usual care for patients who attended specialist medical services included free treatment for depression either from their primary care doctor or from a hospital specialist.
SAMPLE DESCRIPTION	The study included 200 outpatients (99 received usual care and 101 received usual care plus intervention) who had cancer with a prognosis of greater than 6 months, and major depressive disorder (identified by screening). Their mean age was 57 years, and 71% were female.

AREÁN ET AL. (2010)

STUDY DESIGN NARRATIVE	This U.S.-based study used a two-site randomized controlled trial design. Participants were recruited through radio and newspaper advertisements and contact with health care providers. Eligibility and interest were determined through an initial telephone screen. After the initial screening process, eligible participants were assigned to PST or supportive therapy within each of the two sites, using random numbers in blocks of five participants.
SAMPLE DESCRIPTION	There were 221 participants across both sites (110 in the intervention group and 111 in the control group), aged 60 or older (average age 73 years), with depression of moderate severity and executive-function test scores indicating mild to moderate impairment. Approximately 27% of participants had taken antidepressants in the past. A small proportion in each group had generalized anxiety disorder. The average age of depression onset was 58 years.

ERDLEY ET AL. (2010)

STUDY DESIGN NARRATIVE	Participants were assigned by computer-generated random numbers to either the intervention group or the usual care group. Usual care consisted of routine visits from the unit's licensed social worker, as requested by patients or their nephrologists.
SAMPLE DESCRIPTION	Patients at least 60 years of age receiving maintenance hemodialysis at a single outpatient dialysis center were eligible for the study. There were 15 participants assigned to PST, and 18 to usual care. The majority of participants were male (66%),

	and the mean age was 72. The majority (86%) were white, with 7% identifying as African American, and 7% identifying as Native American.

LIU ET AL. (2007)

STUDY DESIGN NARRATIVE	Patients with common mental disorders (CMD) being managed in general medical clinics in a general hospital in Taipei were randomized to usual care, PST plus usual care, and psychiatric consultation plus usual care. Usual care consisted of patients continuing to see their treating physicians and seeing mental health professionals if needed. The comparison of interest for this review is PST plus usual care, compared with usual care alone.
SAMPLE DESCRIPTION	The sample included 254 adult patients referred for evaluation of CMD by non-psychiatric physicians (85 assigned to usual care, 84 to PST plus usual care, and 85 to psychiatric consultation plus usual care). The majority of the participants were female (81%). The mean age was 44 and the mean educational level was 11 years. The most common diagnosis was major depressive disorder (53%).

LAM ET AL. (2010)

STUDY DESIGN NARRATIVE	Through a computer-generated, permuted block randomization procedure (with block size randomized between 4 and 8), elderly Chinese patients from two government-funded general outpatient clinics in Hong Kong were assigned to either the problem-solving treatment in primary care (PST-PC) group or the placebo group. The placebo group viewed health education videos.
SAMPLE DESCRIPTION	The sample included 299 (149 in the PST-C group and 150 in the video group) Chinese patients aged 60 years or over, with positive screening scores for psychological problems by the Hospital Anxiety and Depression Scale (HADS). Participants were 57% female, with a mean age of 72.

HASSINK-FRANKE ET AL. (2011)

STUDY DESIGN NARRATIVE	Dutch general practice registrars provided either PST or usual care according to their own preference to patients with emotional symptoms. Patients were recruited by the registrars during their regular clinical work in their training practice.
SAMPLE DESCRIPTION	The sample included 202 adult patients with emotional symptoms (98 in the PST group and 104 in the usual care group). Participants were 70% female and 94% were white, with a mean age of 43.

KASCKOW ET AL. (2014)

STUDY DESIGN NARRATIVE	Participants were recruited from primary care clinics at two large metropolitan hospitals, and were randomized to either problem-solving therapy for primary care (PST-PC) or to an attention control condition consisting of dietary education (DIET).
SAMPLE DESCRIPTION	Participants included 23 veterans (10 in the PST-PC group and 13 in the DIET group), at least 50 years of age, with subsyndromal depression. The average age was 63 years, 72% were white, 28% were black, and the mean educational level was 14 years.

GELLIS ET AL. (2007)

STUDY DESIGN NARRATIVE	After completing baseline assessments, patients were assigned randomly to problem-solving therapy for home care (PST-HC) or to the usual care condition. Patients in the usual care group received standard, acute home-health-care services for their medical treatment, a referral for antidepressant medication assessment from their primary care physician, and literature about depression and its treatment.
SAMPLE DESCRIPTION	Participants included 40 (20 in the PST-HC group and 20 in the usual care group) older patients with severe depressive symptoms, recruited through home-care intake assessment screens from a university-affiliated, home-care agency. Of the 40 patients, most were white (80%), female (85%), living alone in an apartment or their own home (60%), and a majority had at least three diagnosed medical conditions (55%).

GELLIS ET AL. (2008)

STUDY DESIGN NARRATIVE	Participants were randomly assigned to receive problem-solving therapy for home care (PST-HC) or treatment-as-usual. Randomization was blocked so that assignment to the intervention and control conditions was equalized after every eighth assignment, through a computer-generated random allocation table. Treatment as usual consisted of standard, acute home-health-care services for medical treatment, a referral for antidepressant medication assessment from the primary care physician as a result of a positive depression screen, and educational literature about depression and its treatment.
SAMPLE DESCRIPTION	Participants included 62 (30 in the PST-HC group and 32 in the treatment-as-usual group) older home-care patients with severe depressive symptoms. Of the 62 patients, most were white (85%), female (88%), living alone in an apartment or their own home (80%), and diagnosed with at least three medical conditions (55%).

GELLIS ET AL. (2010)

STUDY DESIGN NARRATIVE	Participants were randomly assigned to receive either problem-solving therapy for home care (PST-HC) or usual care plus education. Randomization was completed by an independent biostatistician. Usual care plus education consisted of six routine, nurse–case manager home visits that included two educational sessions on cardiovascular disease and a depression brochure. Patients were also referred to their primary care physician for antidepressant medication assessment. Patients were called twice over the 6-week period for a brief check in.
SAMPLE DESCRIPTION	Participants included 36 (18 assigned to PST-HC and 18 to usual care plus education) homebound older adults with cardiovascular disease receiving acute home-care services, and meeting criteria for subthreshold depression symptoms. Of the 36 patients, most were white (94%), female (91%), and living alone in an apartment or their own home (89%); the participants had 12 years of education and a mean age of 76 years.

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SUPPLEMENTAL AND CITED DOCUMENTS

None provided.

OTHER STUDIES

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Resources for Dissemination and Implementation *

** Dissemination and implementation information was provided by the program developer or program contact at the time of review. Profile information may not reflect the current costs or availability of materials (including newly developed or discontinued items). The dissemination/implementation contact for this program can provide current information on the availability of additional, updated, or new materials.*

Implementation/Training and Technical Assistance Information

Problem-Solving Treatment (PST) has been used since the 1970s throughout the United States and internationally. It is designed to be provided by mental health professionals such as psychologists, psychiatrists, social workers, and mental health counselors; and primary care physicians and nurses. Implementing the intervention may take from 1–6 months. It can be delivered individually or in group settings.

Implementation requires use of the appropriate therapy manual and its applicable curriculum and introduction training. Manuals and session handouts are available online at no cost for PST, PST-Primary Care (PST-PC), Social PST for Depression and Executive Dysfunction (COPED), and Case Management PST (CM-PST). The current PST manual version has been revised for use with older patients. The PST-PC Manual Appendix includes therapist's session checklists, a Program Descriptionhandout, a patient handout on the importance of pleasurable activities, materials needed, and instructions for delivering each session. Selected handouts for treatment sessions are available online at no cost. These include the PST Problem Solving Worksheet, the PST-PC Problem Solving Worksheet, the PST-PC Problem List, the PST Homework Log, and the PST Relapse Prevention Plan. Many of the manuals and handouts are also available online in other languages, including Chinese, French, Hebrew, and Spanish.

The PST Introduction Training workshop is delivered by the University of Washington Advancing Integrated Mental Health Solutions (AIMS) Center as IMPACT care training. The 1-day workshop can be delivered on site if needed, but is available online at no cost through the University of Washington's AIMS Center. The online training is a 13-module program with 17.5 hours of content.

There are additional optional resources for training and technical assistance on PST, upon request of the program supplier. Videos of sessions during the early, middle, and end stages of treatment are available online at no cost. PST Booster trainings are available through the AIMS Center. Additional specialized PST trainings from the program supplier are available for applying PST to different audiences and for assistance with implementing the therapy.

PST therapist certification is also available from the program supplier for $4000. The certification process consists of a 3-day PST training course, guided experience in providing PST, and review of 10 audio-recorded PST sessions. PST certification is also available in Chinese and Spanish.

For treatment fidelity, patients are required to complete therapist adherence forms at the end of each session. Adherence scales for PST, PST-PC, and CM-PST are available online at no cost.

Dissemination Information

For disseminating information on PST-PC, a PST-PC Program DescriptionHandout is available online at no cost. It is included as part of the PST-PC Program Manual and Appendix. The Program Descriptionis also available in Spanish.

Summary Table of RFDI Materials

Description of item	Required or optional	Cost	Where obtained
Implementation Information			
Problem Solving Therapy (PST) for Late-Life Depression Program Manual (Adults 60 and over) For mental health professionals Available online as PDF Also available in French	Optional	Free	http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST%20manual%20NEW%202012.pdf French: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/Th%C3%A9rapie%20de%20r%C3%A9solution%20de%20probl%C3%A8me%20traduction%20version%20finale.pdf
Problem Solving Therapy for Primary Care (PST-PC) Manual For mental health professionals Available online as PDF Also available in Chinese	Optional	Free	English: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/Pst-PC%20Manual.pdf Chinese: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/Chinese%20PST-PC.pdf
PST-PC Manual Appendix For mental health professionals Available online as PDF	Optional	Free	http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST-PC%20APPENDIX.pdf
Social PST for Depression and Executive Dysfunction (COPED) Manual For mental health professionals Available online as PDF	Optional	Free	http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/Social%20Problem%20Solving%20Therapy%20ED.Final_.pdf
Case Management Problem Solving Therapy (CM-PST) Manual For mental health professionals Available online as PDF	Optional	Free	http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/CM-PST%20final.pdf
PST Problem Solving Worksheet For mental health professionals and patients Available online as PDF Also available in Hebrew	Required	Free	English: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/Problem%20Solving%20Worksheet.pdf Hebrew: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST-PC%20Handout%20in%20Hebrew.pdf
PST-PC Problem Solving Worksheet For mental health professionals and patients Included as part of PST-PC Manual Available inline as PDF Also available in Chinese and Spanish	Optional	Free	English: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST-PC%20Worksheet.pdf Chinese: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/Chinese%20PST%20Worksheet_0.pdf Spanish Version 1: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST%20worksheet_Spanish_0.pdf Spanish Version 2: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.ed

			u/files/documents/Spanish%20PST-PC%20Handout.pdf
PST-PC Problem List For mental health professionals and patients Included as part of PST-PC Manual Available online as PDF Also available in Chinese and Spanish	Optional	Free	English: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST%20Problem%20List.pdf Chinese: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/Chinese%20PST%20worksheets%20supplemental.pdf Spanish: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST.ProblemList-Spanish.pdf
PST Homework Log For mental health professionals and patients Available online as PDF	Required	Free	http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST%20Homework%20Log.pdf
PST Relapse Prevention Plan For mental health professionals and patients Available online as PDF Also available in Spanish	Required	Free	English: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST%20Relapse%20prevention%20plan.pdf Spanish Version 1: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/Relapse%20Prevention%20Plan_Spanish_0.pdf Spanish Version 2: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/Spanish_Relapse_Prevention.pdf
PST-PC Program Description Handout For mental health professional and patients Included as part of PST-PC Manual and Appendix Available online as PDF Also available in Spanish	Optional	Free	English: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST-PC%20APPENDIX.pdf
PST-PC Importance of Pleasurable Activities Handout For mental health professionals, patients, and public Included as part of PST-PC Manual and Appendix Available online as PDF Also available in Spanish	Optional	Free	English: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST-PC%20APPENDIX.pdf Spanish: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PleasantActivities_Spanish_0.pdf
PST Role Play Manual Text in Chinese For mental Health professionals Available online as PDF	Optional	Free	http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST.handout-Spanish_0.pdf
PST Introduction Session Video For mental health professionals Available online	Optional	Free	http://youtu.be/wpSIwt6G-Tw
PST Middle Session Video Parts 1 and 2 For mental health professionals Available online	Optional	Free	Part 1: http://youtu.be/5jOllifW8sE Part 2: http://youtu.be/ishiAyXXXPU
PST Termination Session Video Parts 1 and 2 For mental health professionals Available online	Optional	Free	Part1: http://youtu.be/DgH_XO7b9-4 Part 2: http://youtu.be/-AhwhCfM_Ss
PST Introduction Training Workshop For mental health professionals 1 day in-person workshop	Required	Varies	Through the University of Washington AIMS Center. Send inquiries to: uwaims@uw.edu
PST Online Introduction Training For mental health professionals A	Required	Information not available	http://impact-uw.org/training/

13-module online training programs with 17.5 hours of content			
PST Booster Training For mental health professionals	Optional	Varies	Through the University of Washington AIMS Center. Send inquiries to: uwaims@uw.edu
Specialized PST Training Workshops For mental health professionals	Optional	Varies	
PST Certification For mental health professionals 3-day course, guided PST delivery, and video review Also available in Chinese and Spanish	Optional	$4000 per person	Contact program supplier
PST Adherence Scale For mental health professionals and patients Available online	Required	Free	http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST%20Adherence%20Scale.pdf
PST-PC Adherence Scale For mental health professionals and patients Available online	Required	Free	http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST-PC%20Adherence%20Scales%20session%201%20%2B%202-6.pdf
CM-PST Adherence Scale For mental health professionals and patients Available online	Required	Free	http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/CM-PST%20Adherence%20Scale.pdf
Dissemination Information			
PST-PC Program Description Handout For mental health professional and patients Included as part of PST-PC Manual and Appendix Available online as PDF Also available in Spanish	Optional	Free	English: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PST-PC%20APPENDIX.pdf Spanish: http://pstnetwork.ucsf.edu/sites/pstnetwork.ucsf.edu/files/documents/PSTdescription_Spanish_0.pdf

Appendix

Evidence Rating Definitions

Effective The evaluation evidence has strong methodological rigor, and the short-term effect on this outcome is favorable. More specifically, the short-term effect favors the intervention group and the size of the effect is substantial.

Promising The evaluation evidence has strong methodological rigor, and the short-term effect on this outcome is favorable. More specifically, the short-term effect favors the intervention group and the size of the effect is substantial.

Ineffective The evaluation evidence has sufficient methodological rigor, but there is little to no short-term effect. More specifically, the short-term effect does not favor the intervention group and the size of the effect is negligible. Occasionally, the evidence indicates that there is a negative short-term effect. In these cases, the short-term effect harms the intervention group and the size of the effect is substantial.