Update on Empirically Validated Therapies, II

Dianne L. Chambless, Mary J. Baker, Donald H. Baucom, Larry E. Beutler, Karen S. Calhoun, Paul Crits-Christoph, Anthony Daiuto, Robert DeRubeis, Jerusha Detweiler, David A. F. Haaga, Suzanne Bennett Johnson, Susan McCurry, Kim T. Mueser, Kenneth S. Pope, William C. Sanderson, Varda Shoham, Timothy Stickle, David A. Williams, and Sheila R. Woody

This report provides the second update on our progress in developing a list of empirically supported psychological treatments for specific target populations. Incidental to a survey conducted by the Division 12 Task Force on Promotion and Dissemination of Psychological Procedures, we developed a rudimentary, preliminary list of examples of evidence-based treatments meeting criteria (see Table 1) created by the task force for evaluating the status of empirical support for psychological interventions. At Division 12's request, the Task Force on Psychological Interventions has engaged in an on-going endeavor to review the psychological treatment literature in the search for psychosocial interventions that meet these criteria. This task is far from complete, and we expect the task force to continue to issue annual reports for the foreseeable future. In the interest of space, we will not repeat here the rationale for this endeavor nor limitations we have previously discussed at length. We urge the interested reader to see our prior publications for such background (Chambless et al., 1996; Task Force, 1995).

The content of this list is restricted in at least two notable ways: First, our focus is on what is often termed *efficacy* rather than *effectiveness.* That is, we concentrate here on demonstrations that a treatment is beneficial for patients or clients in well-controlled treatment studies. Effectiveness studies are of importance as well; these include studies of how well an efficacious treatment can be transported from the research clinic to community and private practice settings. Once the task force has more comprehensively covered the efficacy literature, we expect to broach the subject of effectiveness. Second, our focus has primarily been on interventions with adults, and a separate report will be issued by the Division 12 Task Force on Effective Psychosocial Interventions: A Life Span Perspective. That task force, which has concentrated much of its efforts on treatment of children and prevention research, will publish a series of papers in a special issue of the *Journal of Child Clinical Psychology* as well as other outlets.

The task force has been asked for more information about its procedures for identifying treatments and determining whether they meet our criteria for efficacy, and we have seen evidence of considerable misunderstanding about how we operate (e.g., Silverman, 1996). Space does not permit more than a brief description here, and we refer the reader to Beutler (in press), Chambless et al. (1996), and Chambless and Hollon (in press) for more detail. Treatments have been identified as potential candidates for the list in a number of ways: (a) we

Author Notes

Although this paper originated as an effort of the Division 12 Task Force on Psychological Interventions, we are publishing it as individuals rather than representatives of the Division. This is to make clear that this report does not constitute nor is it intended to be viewed as a clinical guideline, standard, or official policy statement of either the Division of Clinical Psychology or of the American Psychological Association. We have listed the task force chair as the first author; otherwise authors are listed alphabetically. Members of the Task Force on Psychological Interventions are Larry E. Beutler, Karen S. Calhoun, Dianne L. Chambless (Chair), Suzanne Bennett Johnson, Susan McCurry, Kim T. Mueser, Nathan Perry (ex officio), Kenneth S. Pope, William C. Sanderson, Varda Shoham, and Sheila R. Woody. Special advisory members are Paul Crits-Christoph and David A. Williams.

The authors thank all those who wrote us to suggest treatments for the list and who sent constructive feedback on our work. Suggestions for the future work of the task force should be sent to the incoming chair, Paul Pilkonis, WPIC, 3811 O'Hara Street, Pittsburgh, PA 15213, or (Internet) pilkonispa@msx.upmc.edu. Correspondence concerning the present paper should be sent to the outgoing task force chair, Dianne Chambless, Dept. of Psychology, UNC-CH, Chapel Hill, NC 27599-3270, or (Internet) chambles@email.unc.edu.

Table 1

CRITERIA FOR EMPIRICALLY-VALIDATED TREATMENTS

Well-Established Treatments

I. At least two good between group design experiments demonstrating efficacy in one or more of the following ways:
   A. Superior (statistically significantly so) to pill or psychological placebo or to another treatment.
   B. Equivalent to an already established treatment in experiments with adequate sample sizes.

OR

II. A large series of single case design experiments (n >9) demonstrating efficacy. These experiments must have:
   A. Used good experimental designs and
   B. Compared the intervention to another treatment as in IA.

FURTHER CRITERIA FOR BOTH I AND II:

III. Experiments must be conducted with treatment manuals.

IV. Characteristics of the client samples must be clearly specified.

V. Effects must have been demonstrated by at least two different investigators or investigating teams.

Probably Efficacious Treatments

I. Two experiments showing the treatment is superior (statistically significantly so) to a waiting-list control group.

OR

II. One or more experiments meeting the Well-Established Treatment Criteria IA or IB, III, and IV, but not V.

OR

III. A small series of single case design experiments ($\underline{n} \geq 3$) otherwise meeting Well-Established Treatment

have asked for nominations from the field via the APA *Monitor*, the Division 12 *Clinical Psychologist*, and Internet lists serving the Society for Psychotherapy Research and the Society for a Science of Clinical Psychology, and our own published reports, among other sources; (b) we scan the journals publishing psychotherapy research ourselves monthly; and (c) we have conducted literature reviews on specific topics using services such as *PsychLit* and *MedLine* and checking the reference sections of papers and reviews we have encountered in this process. For example, for the review of procedures for smoking cessation and treatment of pain conducted for this report (by DAFH and DAW) over 1000 abstracts were reviewed to identify studies that appeared likely to meet our criteria.

Once a potential treatment is identified, a reviewer takes responsibility for evaluating the literature on its efficacy and often recruits colleagues to assist in the review and consults with other experts in that field. The reviewer then reports back to the group at large with a recommendation. Points of disagreement are debated and clarified until a consensus is reached or, more rarely, a vote is taken. Once we cite a treatment, we continue to review additional evidence we find in subsequent years and may decide to remove a treatment from the list or change its classification on the basis of new information, or upon the discovery that we have erred. It is impossible for us to cite all of the studies that we review in this publication format. Rather, we select representative studies to cite for efficacy evidence. When the evidence for a particular treatment is mixed, the reviewer is charged with determining whether the clear preponderance of the evidence is positive. If not, we choose to err on the side of caution by not listing the treatment. In reaching this decision, the reviewer typically seeks input from other members of the group and weighs the quality of the methodology in determining which

studies' data have more credence. Elsewhere Chambless and Hollon (in press) have detailed the guidelines we follow in deciding on the strength of an efficacy study's methodology. In sum, we review many more treatments than we list. Additional information on some of the points that figured in our decisions about individual treatments may be found in the upcoming special section on empirically supported therapies in the *Journal of Consulting and Clinical Psychology.*

Foci for this Update

Since our last update (Chambless et al., 1996) we have continued to refine our list of interventions for the anxiety disorders, depression, and other problems already covered in the past. However, the greatest changes in this edition come from major efforts to review the literatures on couples and family therapies for psychological disorders (DHB, AD, KTM, VS, TS), treatment of the severely mentally ill (KTM), and delimited areas of health psychology interventions including smoking cessation programs (DAFH) and treatment of pain patients (DAW).

Couples Treatments for Psychological Disorders

We have previously reviewed the literature for treatment of marital distress. The focus here is on couples interventions for psychological disorders experienced by an individual. Typically these treatment programs involve the spouse as part of a broader program designed to alleviate symptoms. Couples therapy is rarely the sole intervention. Probably efficacious treatments were located for alcohol dependence, agoraphobia, and female sexual dysfunctions. We were surprised to find how few studies in the sex therapy literature provided supportive evidence meeting our particular criteria. In some cases this was because the early, classic studies in the field do not meet our present-day criteria for methodological rigor. The dearth of evidence-based treatments for men is particularly striking.

Interventions for Severely Mentally Ill Patients

Family intervention programs for schizophrenia. Unlike many of the treatments that we list, intervention programs for families of schizophrenic patients are far from stand-alone treatments. Rather, the question is whether family programs add to standard approaches including medication monitoring, case management, and other treatment programs for the individual patient. The various efficacious behavioral/psychoeducational family intervention programs share many common components with small differences. Data from at least 9 controlled trials demonstrate the solid finding that, during a 2-year period of monitoring, patients are less likely to relapse if their families participate in such behavioral and psychoeducationally oriented programs than if they do not (30% vs 65%, on average). Null results are rare, but it is perhaps noteworthy that, in one such case (Telles et al., 1995), the investigators had a unique sample of low income Latino immigrants to the US. These findings require replication but suggest that a different treatment approach may need to be designed for Latino families. However, they should not be taken to mean that, generally speaking, the results of family intervention programs are limited to one ethnic group or another. Positive results come from studies in the US (where a large proportion of patients were African American), Great Britain, and China. For simplicity, in Table 2 we cite two studies relying on the same treatment manual. Note that other investigators have obtained comparable effects with different manuals that share the above-mentioned features.

Other Interventions. Two other probably efficacious interventions have been identified for severely mentally ill patients. In each case, the intervention targets not the positive symptoms of schizophrenia, but the patient's life functioning — employment or social adjustment. See Table 2. A particular comment on supported employment (SE) for severe mental illness is warranted. We had some internal debate about classifying SE as a psychological intervention rather than an alternative method of configuring rehabilitation services. We concluded that SE principles specify individualized treatment programming that differs fundamentally from traditional rehabilitation approaches. Further, SE programs are typically integrated with clinical services and run by members of the clinical treatment team, and interventions include provision of support such as problem solving about how to handle conflict with a co-worker.

Health Psychology Interventions

Interventions for chronic pain conditions. The evaluation of psychological interventions for chronic pain conditions is made especially complex by its integration into medical health care settings where it is typically part of, rather than the whole, treatment approach. Hence, in many cases the question examined is whether the psychological procedure adds to the efficacy of standard medical care, and our listings should not be taken to imply that the psychological intervention would be efficacious as a stand-alone treatment. We focused on treatments designed to be delivered as individual or group psychotherapy or psychoeducational programs by a professional in face-to-face contact with the patient. Given the enormity of the pain literature, we have not yet reviewed it all. Notable omissions are tension headache, interventions for acute pain whether postoperative or attendant to medical procedures, and pain associated with cancer. For this review, we concentrated on identifying treatments with demonstrated

efficacy in one or more of the following: reducing reported pain, increasing physical functioning, and improving cognitive-affective components of pain. A number of probably efficacious treatments and one new well-established treatment were identified. See Table 2.

Smoking cessation programs. There is a broad array of psychological interventions designed to promote smoking cessation. Our review focuses solely on those programs in which the intervention was conducted in individual or group psychotherapy sessions. Two additional noteworthy delimiters are: (a) we concentrated on complete abstinence from smoking 1 year after treatment as the outcome variable of interest, and (b) we required that abstinence be corroborated by biochemical tests. One side effect of these decision rules was that some treatments extensively researched in the 1960s-1980s, before biochemical verification was common, are not included in our review. In some cases, such treatments appear to be efficacious if one relies upon self-report data (e.g., rapid-paced aversive smoking, see review by Law & Tang, 1995). In addition, the major emphases in the smoking cessation field are no longer interventions fit for individual or group psychotherapy, but self-help, mass media and community campaigns, primary prevention, and nicotine replacement (Lichtenstein & Glasgow, 1992). Nonetheless, because smoking is such an important health problem, and because our focus is largely on interventions the individual practitioner can provide, we believe it is important to list efficacious treatments meeting our criteria. See Table 2.

Conclusion

One of the greatest challenges in preparing this report is maintaining a consistent approach to our decisions about a broad range of problems and treatments. The criteria presented in Table 1 fit some areas (e.g., the standard individual outpatient psychotherapy trial) more comfortably than others (e.g., complex and flexible interventions with populations requiring multiple interventions, typical in health psychology or work with the severely mentally ill). At times this leads to internal disagreement about the terms and criteria we have used since the inception of the EVT list. Although we have chosen to maintain the decision rules we established in our 1995 report, some of the difficulties this decision raises are worth mentioning.

To be classified as *well-established* according to our criteria, a treatment must have demonstrated that its benefits exceed those of some alternative treatment or placebo condition controlling for attention and expectancy (or that they equal the benefits from another well-established treatment), that is, that the effects of the treatment be *specific* (see Chambless & Hollon, in press). Additionally, we require that this efficacy have been demonstrated by at least two independent research teams. This last point has caused no dissent. However, our group members do hold different views about whether specificity should be necessary for us to consider a treatment well-established. Some consider the question of the mechanism by which treatment works to be separate from efficacy considerations, whereas others believe it is essential for psychological interventions meeting or exceeding the standards for pharmacological interventions to be identified and highlighted. That is, comparisons to a waiting list control for the passage of time and the effects of assessment, but they do not control for so-called nonspecific factors like expectancy of change and contact with a supportive professional. We have considered adopting the three-part scheme suggested by Chambless and Hollon (in press), in which treatments are categorized as possibly efficacious (not replicated yet), efficacious (better than no treatment in at least two independent studies), and efficacious and specific (better than an alternative treatment or placebo). For now, we have delayed making this decision so that we might move forward on a broader EVT list, rather than revisiting the work we have already done.

"One of the greatest challenges in preparing this report is maintaining a consistent approach to our decisions about a broad range of problems and treatments."

These decision rules have more impact on the classification of some treatments than others. For example, as noted earlier, in treatment of schizophrenia there are nine studies by a number of different research teams showing that behavioral/psychoeducational family interventions are beneficial in reducing relapse. Yet we list these interventions as probably efficacious instead of well-established because investigators have rarely included a control treatment for the family intervention. Rather, family intervention plus standard treatment is compared to standard treatment alone. This same design is common in health psychology research where a psychological intervention may be added to medical procedures, and the question tested is whether the psychological treatment adds to the efficacy of treatment as usual. Thus, we encourage readers to keep the operational definitions of our categories of probable and well-established efficacy in mind when put-

ting this EVT list to use. Otherwise, they may give short shrift to interventions with a solid base of comparisons to no treatment or as an addition to treatment as usual.

Also omitted from our list are multi-component treatments which are formed by adding a new component to another treatment already well-established in efficacy when the combined treatment does not exceed the original treatment in efficacy. Examples include cognitive-behavioral marital therapy (e.g., Baucom et al., 1990), in which a cognitive component has been added to behavioral marital therapy with no incremental benefit, and spouse-assisted exposure for obsessive-compulsive disorder in which the introduction of the spouse as a partner and coach in treatment sessions did not increase the benefits derived from exposure alone (e.g., Emmelkamp et al., 1990). Some of us argued that these treatments should be listed as efficacious because the compound treatment is as efficacious, even though not more efficacious, than the established treatment. The majority of us, however, concluded that such listings would not be parsimonious and could be misleading. An example drawn from the literature on combined psychological and pharmacological interventions may clarify our reasoning. When given in low doses, the tranquilizer diazepam does not interfere with the outcome of exposure treatment for agoraphobia (Wardle et al., 1994), nor does it increase exposure's efficacy. Should we then say that diazepam plus exposure is an efficacious treatment for agoraphobia? We think not.

The Task Force on Psychological Interventions undertakes construction of this list in the belief that clinical psychologists and clinical psychology training programs may be assisted thereby in identifying treatments they wish to learn more about to enhance their skills or training program. We welcome feedback about this work and suggestions (preferably with reprints or citations) of treatments that might qualify for the EVT list. ■

Table 2

EXAMPLES OF EMPIRICALLY VALIDATED TREATMENTS

Well-Established Treatments	Citation for Efficacy Evidence
ANXIETY AND STRESS:	
Cognitive behavior therapy for panic disorder with and without agoraphobia	Barlow et al. (1989) Clark et al. (1994)
Cognitive behavior therapy for generalized anxiety disorder	Butler et al. (1991) Borkovec et al. (1987)
Exposure treatment for agoraphobia	Trull et al. (1988)
*Exposure/guided mastery for specific phobia	Bandura et al. (1969) Öst et al. (1991)
Exposure and response prevention for obsessive-compulsive disorder	van Balkom et al. (1994)
Stress Inoculation Training for Coping with Stressors	Saunders et al. (1996)
DEPRESSION:	
*Behavior therapy for depression	Jacobson et al. (1996) McLean & Hakstian (1979)

Table 2 (continued)

Well-Established Treatments	Citation for Efficacy Evidence
Cognitive therapy for depression	Dobson (1989)
Interpersonal therapy for depression	DiMascio et al. (1979) Elkin et al. (1989)
HEALTH PROBLEMS:	
Behavior therapy for headache	Blanchard et al. (1980) Holroyd & Penzien (1990)
Cognitive-behavior therapy for bulimia	Agras et al. (1989) Thackwray et al. (1993)
*Multi-component cognitive-behavior therapy for pain associated with rheumatic disease	Keefe et al. (1990a,b) Parker et al. (1988)
*Multi-component cognitive-behavior therapy with relapse prevention for smoking cessation	Hill et al. (1993) Stevens & Hollis (1989)
PROBLEMS OF CHILDHOOD:	
Behavior modification for enuresis	Houts et al. (1994)
Parent training programs for children with oppositional behavior	Walter & Gilmore (1973) Wells & Egan (1988)
MARITAL DISCORD:	
Behavioral marital therapy	Azrin et al. (1980a) Jacobson & Follette (1985)

Table 2 (continued)

Probably Efficacious Treatments	Citation for Efficacy Evidence
ANXIETY:	
Applied relaxation for panic disorder	Öst (1988)
Applied relaxation for generalized anxiety disorder	Barlow et al., 1992 Borkovec & Costello, 1993
*Cognitive behavior therapy for social phobia	Heimberg et al. (1990) Feske & Chambless (1995)
*Cognitive therapy for OCD	van Oppen et al. (1995)
*Couples communication training adjunctive to exposure for agoraphobia	Arnow et al. (1985)
*EMDR for civilian PTSD	Rothbaum (in press) Wilson et al. (1995)
Exposure treatment for PTSD	Foa et al. (1991) Keane et al. (1989)
*Exposure treatment for social phobia	Feske & Chambless (1995)
Stress Inoculation Training for PTSD	Foa et al. (1991)
Relapse prevention program for obsessive-compulsive disorder	Hiss et al. (1994)
*Systematic desensitization for animal phobia	Kirsch et al. (1983) Öst (1978)
*Systematic desensitization for public speaking anxiety	Paul (1967) Woy & Efran (1972)
*Systematic desensitization for social anxiety	Paul & Shannon (1966)
CHEMICAL ABUSE AND DEPENDENCE:	
Behavior therapy for cocaine abuse	Higgins et al. (1993)
Brief dynamic therapy for opiate dependence	Woody et al. (1990)

Table 2 (continued)

Probably Efficacious Treatments	Citation for Efficacy Evidence
*Cognitive-behavioral relapse prevention therapy for cocaine dependence	Carroll et al. (1994)
Cognitive therapy for opiate dependence	Carroll et al. (1994)
Cognitive-behavior therapy for benzodiazepine withdrawal in panic disorder patients	Otto et al. (1993) Spiegel et al. (1994)
*Community Reinforcement Approach for alcohol dependence	Azrin (1976) Hunt & Azrin (1973)
*Cue exposure adjunctive to inpatient treatment for alcohol dependence	Drummond & Glautier (1994)
*Project CALM for mixed alcohol abuse and dependence (behavioral marital therapy plus disulfiram)	O'Farrell et al. (1985) O'Farrell et al. (1992)
*Social skills training adjunctive to inpatient treatment for alcohol dependence	Eriksen et al. (1986)
DEPRESSION:	
Brief dynamic therapy	Gallagher-Thompson & Steffen (1994)
Cognitive therapy for geriatric patients	Scogin & McElreath (1994)
Reminiscence therapy for geriatric patients	Arean et al. (1993) Scogin & McElreath (1994)
Self-control therapy	Fuchs & Rehm (1977) Rehm et al. (1979)
*Social problem-solving therapy	Nezu (1986) Nezu & Perri (1989)
HEALTH PROBLEMS:	
Behavior therapy for childhood obesity	Epstein et al. (1994) Wheeler & Hess (1976)
*Cognitive-behavior therapy for binge eating disorder	Telch et al. (1990) Wilfley et al. (1993)
*Cognitive-behavior therapy adjunctive to physical therapy for chronic pain	Nicholas et al. (1991)

Table 2 (continued)

Probably Efficacious Treatments	Citation for Efficacy Evidence
*Cognitive-behavior therapy for chronic low back pain	Turner & Clancy (1988)
*EMG biofeedback for chronic pain	Flor & Birbaumer (1993) Newton-John et al. (1995)
*Hypnosis as an adjunct to cognitive-behavior therapy for obesity*Interpersonal therapy for binge-eating disorder	Bolocofsky et al. (1985) Wilfley et al. (1993)
*Interpersonal therapy for bulimia	Fairburn et al. (1993)
*Multi-component cognitive therapy for irritable bowel syndrome	Lynch & Zamble (1989) Payne & Blanchard (1995)
*Multi-component cognitive-behavior therapy for pain of sickle cell disease	Gil et al. (1996)
*Multi-component operant-behavioral therapy for chronic pain	Turner & Clancy (1988) Turner et al. (1990)
*Scheduled, reduced smoking adjunctive to multi-component behavior therapy for smoking cessation	Cinciripini et al. (1994) Cinciripini et al. (1995)
*Thermal biofeedback for Raynaud's syndrome	Freedman et al. (1983)
*Thermal biofeedback plus autogenic relaxation training for migraine	Blanchard et al. (1978) Sargent et al. (1986)
MARITAL DISCORD:	
*Emotionally focused couples therapy for moderately distressed couples	James (1991) Johnson & Greenberg (1985)
Insight-oriented marital therapy	Snyder et al. (1989, 1991)
PROBLEMS OF CHILDHOOD:	
Behavior modification of encopresis	O'Brien et al. (1986)
*Cognitive-behavior therapy for anxious children (overanxious, separation anxiety, and avoidant disorders)	Kendall (1994) Kendall et al. (1997)
*Exposure for simple phobia	Menzies & Clarke (1993)
Family anxiety management training for anxiety disorders	Barrett et al. (1996)

Table 2 (continued)

Probably Efficacious Treatments	Citation for Efficacy Evidence
SEXUAL DYSFUNCTION:	
*Hurlbert's combined treatment approach for female hypoactive sexual desire	Hurlbert et al. (1993)
*Masters & Johnson's sex therapy for female orgasmic dysfunction	Everaerd & Dekker (1981)
*Zimmer's combined sex and marital therapy for female hypoactive sexual desire	Zimmer (1987)
OTHER:	
Behavior modification for sex offenders	Marshall et al. (1991)
Dialectical behavior therapy for borderline personality disorder	Linehan et al. (1991)
*Family intervention for schizophrenia	Falloon et al. (1985) Randolph et al. (1994)
Habit reversal and control techniques	Azrin et al. (1980b) Azrin et al. (1980c)
*Social skills training for improving social adjustment of schizophrenic patients	Marder et al. (1996)
*Supported employment for severely mentally ill clients	Drake et al. (1996)

Note: Studies cited for efficacy evidence are linked to specific treatment manuals or to procedures well described in the study's report. The operational definition of the treatment is to be found in those manuals; the labels used here do not suffice to identify the particular treatment judged to be efficacious.

* Indicates a treatment added or a recommendation altered since the publication of Chambless et al. (1996). Two treatments have been deleted, not because of negative evidence, but because, unlike the other treatments, we do not have specific target problems identified yet for these approaches: token economy (target problem not specified) and behavior modification for people with developmental disabilities (target unspecified References).

References

Agras, W.S., Schneider, J.A., Arnow, B., Raeburn, S.D., & Telch, C.F. (1989). Cognitive-behavioral and response-prevention treatments for bulimia nervosa. ***Journal of Consulting and Clinical Psychology, 57*****,** 215-221.

Arean, P.A., Perri, M.G., Nezu, A.M., Schein, R.L., Christopher, F., & Joseph, T.X. (1993). Comparative effectiveness of social problem-solving therapy and reminiscence therapy as treatments for depression in older adults. *Journal of Consulting and Clinical Psychology, 61*, 1003-1010.

Arnow, B.A., Taylor, C.B., Agras, W.S., & Telch, M.J. (1985). Enhancing agoraphobia treatment outcome by changing couple communication patterns. *Behavior Therapy, 16*, 452-467.

Azrin, N.H. (1976). Improvements in the CR approach to alcoholism. *Behaviour Research and Therapy, 14*, 339-348.

Azrin, N. H., Bersalel, A., Bechtel, R., Michalicek, A., Mancera, M., Carroll, D., Shuford, D., & Cox, J. (1980a). Comparison of reciprocity and discussion-type counseling for marital problems. *American Journal of Family Therapy, 8*, 21-28.

Azrin, N. H., Nunn, R. G., & Frantz, S. E. (1980b). Habit reversal vs. negative practice treatment of nailbiting. *Behaviour Research and Therapy, 18*, 281-285.

Azrin, N. H., Nunn, R. G., & Frantz-Renshaw, S. (1980c). Habit reversal treatment of thumbsucking. *Behaviour Research and Therapy, 18*, 395-399.

Bandura, A., Blanchard, E.B., & Ritter, B. (1969). Relative efficacy of desensitization and modeling approaches for inducing behavioral, affective, and attitudinal change. *Journal of Personality and Social Psychology, 13*, 173-199.

Barlow, D. H., Craske, M. G., Cerny, J. A., & Klosko, J. S. (1989). Behavioral treatment of panic disorder. *Behavior Therapy, 20*, 261-282.

Barlow, D.H., Rapee, R.M., & Brown, T.A. (1992). Behavioral treatment of generalized anxiety disorder. *Behavior Therapy, 23*, 551-570.

Barrett, P.M., Dadds, M.R., & Rapee, R.M. (1996). Family treatment of childhood anxiety: A controlled trial. *Journal of Consulting and Clinical Psychology, 64*, 333-342.

Baucom, D.H., Sayers, S.L., & Sher, T.G. (1990). Supplementing behavioral marital therapy with cognitive restructuring and emotional expressiveness training: An outcome investigation. *Journal of Consulting and Clinical Psychology, 58*, 636-645.

Beutler, L.E. (in press). Identifying empirically supported treatments: What if we didn't? *Journal of Consulting and Clinical Psychology.*

Blanchard, E. B., Andrasik, F., Ahles, T. A., Teders, S. J., & O'Keefe, D. (1980). Migraine and tension headache: A meta-analytic review. *Behavior Therapy, 11*, 613-631.

Blanchard, E.B., Theobold, D.E., Williamson, D.A., Silver, B.V., & Brown, D.A. (1978). Temperature biofeedback in the treatment of migraine headaches. *Archives of General Psychiatry, 35*, 581-588.

Bolocofsky, D.N., Spinler, D., & Coulthard-Morris, L. (1985). Effectiveness of hypnosis as an adjunct to behavioral weight management. *Journal of Clinical Psychology, 41*, 35-41.

Borkovec, T.D., & Costello, E. (1993). Efficacy of applied relaxation and cognitive-behavioral therapy in the treatment of generalized anxiety disorder. *Journal of Consulting and Clinical Psychology, 61*, 611-619.

Borkovec, T. D., Mathews, A. M., Chambers, A., Ebrahimi, S., Lytle, R., & Nelson, R. (1987). The effects of relaxation training with cognitive or nondirective therapy and the role of relaxation-induced anxiety in the treatment of generalized anxiety. *Journal of Consulting and Clinical Psychology, 55*, 883-888.

Butler, G., Fennell, M., Robson, P., & Gelder, M. (1991). Comparison of behavior therapy and cognitive behavior therapy in the treatment of generalized anxiety disorder. *Journal of Consulting and Clinical Psychology, 59*, 167-175.

Carroll, K.M., Rounsaville, B.J., Gordon, L.T., Nich, C., Jatlow, P., Bisighini, R.M., & Gawin, F.H. (1994). Psychotherapy and pharmacology for ambulatory cocaine abusers. *Archives of General Psychiatry, 51*, 177-187.

Chambless, D.L., & Hollon, S. (in press). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology.*

Chambless, D.L., Sanderson, W.C., Shoham, V., Bennett Johnson, S., Pope, K.S., Crits-Christoph, P., Baker, M., Johnson, B., Woody, S.R., Sue, S., Beutler, L., Williams, D.A., & McCurry, S. (1996). An update on empirically validated therapies. *The Clinical Psychologist, 49*, 5-18.

Cinciripini, P.M., Lapitsky, L.G., Seay, S., Wallfisch, A., Kitchens, K., & van Vunakis, H. (1995). The effects of smoking schedules on cessation outcome: Can we improve on common methods of gradual and abrupt nicotine withdrawal? *Journal of Consulting and Clinical Psychology, 63*, 388-399.

Cinciripini, P.M., Lapitsky, L.G., Wallfisch, A., Mace, R., Nezami, E., & van Vunakis, H. (1994). An evaluation of a multicomponent treatment program involving scheduled smoking and relapse prevention procedures: Initial findings. *Addictive Behaviors, 19*, 13-22.

Clark, D. M., Salkovskis, P.M., Hackman, A., Middleton, H., Anastasiades, P., & Gelder, M. (1994). A comparison of cognitive therapy, applied relaxation, and imipramine in the treatment of panic disorder. *British Journal of Psychiatry, 164*, 759-769.

DiMascio, A., Weissman, M. M., Prusoff, B. A., Neu, C., Zwilling, M., & Klerman, G. L. (1979). Differential symptom reduction by drugs and psychotherapy in acute depression. *Archives of General Psychiatry, 36*, 1450-1456.

Dobson, K. S. (1989). A meta-analysis of the efficacy of cognitive therapy for depression. *Journal of Consulting and Clinical Psychology, 57*, 414-419.

Drake, R.E., McHugo, G.J., Becker, D.R., Anthony, W.A., & Clark, R.E. (1996). The New Hampshire supported employment study. *Journal of Consulting and Clinical Psychology, 64*, 391-399.

Drummond, D.C., & Glautier, S. (1994). A controlled trial of cue exposure treatment in alcohol dependence. *Journal of Consulting and Clinical Psychology, 62*, 809-817.

Elkin, I., Shea, M. T., Watkins, J. T., Imber, S. D., Sotsky, S. M., Collins, J. F., Glass, D. R., Pilkonis, P. A., Leber, W. R., Docherty, J. P., Fiester, S. J., & Parloff, M. B. (1989). National Institute of Mental Health Treatment of Depression Collaborative Research Program: General effectiveness of treatments. *Archives of General Psychiatry, 46*, 971-982.

Emmelkamp, P.M.G., de Haan, E., & Hoodguin, C.A.L. (1990). Marital adjustment and obsessive-compulsive disorder. British Journal of Psychiatry, 156, 55-60.

Epstein, L.H., Valoski, A., Wing, R.R., & McCurley, J. (1994). Ten-year outcomes of behavioral family-based treatment for childhood obesity. *Health Psychology, 13*, 373-383.

Eriksen, L., Bjornstad, S., & Gotestam, K.G. (1986). Social skills training in groups for alcoholics: One-year treatment outcome for groups and individuals. *Addictive Behaviors, 11*, 309-329.

Everaerd, W., & Dekker, J. (1981). A comparison of sex therapy and communication therapy: Couples complaining of orgasmic dysfunction. *Journal of Sex and Marital Therapy, 7*, 278-289.

Fairburn, C. G., Jones, R., Peveler, R. C., Hope, R. A., O'Conner, M. (1993). Psychotherapy and bulimia nervosa: Longer-term effects of interpersonal psychotherapy, behavior therapy, and cognitive behavior therapy. *Archives of General Psychiatry, 50*, 419-428.

Falloon, I.R.H., Boyd, J.L., McGill, C.W., Williamson, M., Razani, J., Moss, H.B., Gilderman, A.M., & Simpson, G.M. (1985). Family management in the prevention of morbidity of schizophrenia: Clinical outcome of a two year longitudinal study. *Archives of General Psychiatry, 42*, 887-896.

Feske, U., & Chambless, D.L. (1995). Cognitive behavioral versus exposure only treatment for social phobia: A meta-analysis. *Behavior Therapy, 26*, 695-720.

Flor, H., & Birbaumer, N. (1993). Comparison of the efficacy of electromyographic biofeedback, cognitive-behavioral therapy, and conservative medical interventions in the treatment of chronic musculoskeletal pain. *Journal of Consulting and Clinical Psychology, 61*, 653-658.

Foa, E. B., Rothbaum, B. O., Riggs, D. S., & Murdock, T. B. (1991). Treatment of posttraumatic stress disorder in rape victims: A comparison between cognitive-behavioral procedures and counseling. *Journal of Consulting and Clinical Psychology, 59*, 715-723.

Freedman, R.R., Ianni, P., & Wenig, P. (1983). Behavioral treatment of Raynaud's disease. *Journal of Consulting and Clinical Psychology, 51*, 539-549.

Fuchs, C.Z., & Rehm, L.P. (1977). A self-control behavior therapy program for depression. *Journal of Consulting and Clinical Psychology, 45*, 206-215.

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

Gil, K.M., Wilson, J.J., Edens, J.L., Webster, D.A., Abrams, M.A., Orringer, E., Grant, M., Clark, W.C., & Janal, M.N. (1996). The effects of cognitive coping skills training on coping strategies and experimental pain sensitivity in African American adults with sickle cell disease. *Health Psychology, 15*, 3-10.

Heimberg, R. G., Dodge, C. S., Hope, D. A., Kennedy, C. R., & Zollo, L. J. (1990). Cognitive behavioral group treatment for social phobia: Comparison with a credible placebo control. *Cognitive Therapy and Research, 14*, 1-23.

Higgins, S.T., Budney, A.J., Bickel, W.K., Hughes, J.R., Foeg, F., & Badger, G. (1993). Achieving cocaine abstinence with a behavioral approach. *American Journal of Psychiatry, 150*, 763-769.

Hill, R.D., Rigdon, M., & Johnson, S. (1993). Behavioral smoking cessation treatment for older chronic smokers. *Behavior Therapy, 24*, 321-329.

Hiss, H., Foa, E.B., & Kozak, M.J. (1994). Relapse prevention program for treatment of obsessive-compulsive disorder. *Journal of Consulting and Clinical Psychology, 62*, 801-808.

Holroyd, K.A., & Penzien, D.B. (1990). Pharmacological versus nonpharmacological prophylaxis of recurrent migraine headache: A meta-analytic review of clinical trials. *Pain, 42*, 1-13.

Houts, A.C., Berman, J.S., & Abramson, H. (1994). Effectiveness of psychological and pharmacological treatments for nocturnal enuresis. *Journal of Consulting and Clinical Psychology, 62*, 737-745.

Hunt, G.M., & Azrin, N.J. (1973). A community reinforcement approach to alcoholism. *Behaviour Research and Therapy, 11*, 91-104.

Hurlbert, D.F., White, C.L., & Powell, R.D. (1993). Orgasm consistency training in the treatment of women reporting hypoactive sexual desire: An outcome comparison of women-only groups and couple-only groups. *Journal of Behavior Therapy and Experimental Psychiatry, 24*, 3-13.

Jacobson, N.S., Dobson, K.S., Truax, P.A., Addis, M.E., Koerner, K., Gollan, J.K., Gortner, E., & Prince, S.E. (1996). A component analysis of cognitive-behavioral treatment for depression. *Journal of Consulting and Clinical Psychology, 62*, 295-304.

Jacobson, N. S., & Follette, W. C. (1985). Clinical significance of improvement resulting from two behavioral marital therapy components. *Behavior Therapy, 16*, 249-262.

James, P.S. (1991). Effects of a communication training component added to an emotionally focused couples therapy. *Journal of Marital and Family Therapy, 17*, 263-275.

Johnson, S. M., & Greenberg, L. S. (1985). Differential effects of experiential and problem-solving interventions in resolving marital conflict. *Journal of Consulting and Clinical Psychology, 53*, 175-184.

Keane, T.M., Fairbank, J.A., Caddell, J.M., & Zimering, R.T. (1989). Implosive (flooding) therapy reduces symptoms of PTSD in Vietnam combat veterans. *Behavior Therapy, 20*, 245-260.

Keefe, F.J., Caldwell, D.S., Williams, D.A., Gil, K.M., Mitchell, D., Robertson, C., Martinez, S., Nunley, J., Beckham, J.C., & Helms, M. (1990a). Pain coping skills training in the management of osteoarthritic knee pain: A comparative study. *Behavior Therapy, 21*, 49-62.

Keefe, F.J., Caldwell, D.S., Williams, D.A., Gil, K.M., Mitchell, D., Robertson, C., Martinez, S., Nunley, J., Beckham, J.C., & Helms, M. (1990b). Pain coping skills training in the management of osteoarthritic knee pain - II: Follow-up results. *Behavior Therapy, 21*, 435-447.

Kendall, P.C. (1994). Treating anxiety disorders in children: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology, 62*, 100-110.

Kendall, P.C., Flannery-Schroeder, E., Panichelli-Mindel, S.M., Southam-Gerow, M., Henin, A., & Warman, M. (1997). Therapy for youths with anxiety disorders: A second randomized clinical trial. *Journal of Consulting and Clinical Psychology, 65*, 366-380.

Kirsch, I., Tennen, H., Wickless, C., Saccone, A.J., & Cody, S. (1983). The role of expectancy in fear reduction. *Behavior Therapy, 14*, 520-533.

Law, M., & Tang, J.L. (1995). An analysis of the effectiveness of interventions intended to help people stop smoking. *Archives of Internal Medicine, 155*, 1933-1941.

Lichtenstein, E., & Glasgow, R.E. (1992). Smoking cessation: What have we learned over the past decade? *Journal of Consulting and Clinical Psychology, 50*, 509-524.

Linehan, M. M., Armstrong, H. E., Suarez, A., Allmon, D., & Heard, H. L. (1991). Cognitive-behavioral treatment of chronically parasuicidal borderline patients. *Archives of General Psychiatry, 48*, 1060-1064.

Lynch, P.M., & Zamble, E. (1989). A controlled behavioral treatment study of irritable bowel syndrome. *Behavior Therapy, 20*, 509-523.

Marder, S.R., Wirshing, W.C., Mintz, J., McKenzie, J., Johnston, K., Eckman, T.A., Lebell, M., Zimmerman, K., & Liberman, R.P. (1996). Two-year outcome of social skills training and group psychotherapy for outpatients with schizophrenia. *American Journal of Psychiatry, 153*, 1585-1592.

Marshall, W. L., Jones, R., Ward, T., Johnston, P., & Barbaree, H. E. (1991). Treatment outcome with sex offenders. *Clinical Psychology Review, 11*, 465-485.

McLean, P.D., & Hakstian, A.R. (1979). Clinical depression: Comparative efficacy of outpatient treatments. *Journal of Consulting and Clinical Psychology, 47*, 818-836.

Menzies, R.G., & Clarke, J.C. (1993). A comparison of in vivo and vicarious exposure in the treatment of childhood water phobia. *Behaviour Research and Therapy, 31*, 9-15.

Newton-John, T.R.O., Spence, S.H., & Schotte, D. (1995). Cognitive-behavioral therapy versus EMG biofeedback in the treatment of chronic low back pain. *Behaviour Research and Therapy, 33*, 691-697.

Nezu, A.M. (1986). Efficacy of a social problem-solving therapy approach for unipolar depression. *Journal of Consulting and Clinical Psychology, 54*, 196-202.

Nezu, A.M., & Perri, M.G. (1989). Social problem-solving therapy for unipolar depression: An initial dismantling investigation. *Journal of Consulting and Clinical Psychology, 57*, 408-413.

Nicholas, M.K., Wilson, P.H., & Goyen, J. (1991). Operant-behavioral and cognitive-behavioral treatment for chronic low back pain. *Behaviour Research and Therapy, 29*, 225-238.

O'Brien, S., Ross, L.V., & Christophersen, E.R. (1986). Primary encopresis: Evaluation and treatment. *Journal of Applied Behavior Analysis, 19*, 137-145.

O'Farrell, T.J., Cutter, H.S.G., Choquette, K.A., Floyd, F.J., & Bayog, R.D. (1992). Behavioral marital therapy for male alcoholics: Marital and drinking adjustment during the two years after treatment. *Behavior Therapy, 23*, 529-549.

O'Farrell, T.J., Cutter, H.S.G., & Floyd, F.J. (1985). Evaluating behavioral martial therapy for male alcoholics: Effects on marital adjustment and communication from before to after treatment. *Behavior Therapy, 16*, 147-167.

Öst, L.-G. (1978). Fading vs. systematic desensitization in the treatment of snake and spider phobia. *Behaviour Research and Therapy, 16*, 379-389.

Öst, L. (1988). Applied relaxation vs progressive relaxation in the treatment of panic disorder. *Behaviour Research and Therapy, 26*, 13-22.

Öst, L-G., Salkovskis, P.M., & Hellstrom, K. (1991). One-session therapist-directed exposure vs. self-exposure in the treatment of spider phobia. *Behavior Therapy, 22*, 407-422.

Otto, M.W., Pollack, M.H., Sachs, G.S., Reiter, S.R., Meltzer-Brody, S., Rosenbaum, J.F. (1993). Discontinuation of benzodiazepine treatment: Efficacy of cognitive behavioral therapy for patients with panic disorder. *American Journal of Psychiatry, 150*, 1485-1490.

Parker, J.C., Frank, R.G., Beck, N.C., Smarr, K.L., Buescher, K.L, Phillips, L.R., Smith, E.I., Anderson, S.K., & Walker, S.E. (1988). Pain management in rheumatoid arthritis patients: A cognitive-behavioral approach. *Arthritis and Rheumatism, 31*, 593-601.

Paul, G.L. (1967). Insight vs desensitization in psychotherapy two years after termination. *Journal of Consulting Psychology, 31*, 333-348.

Paul, G.L., & Shannon, D.T. (1966). Treatment of anxiety through systematic desensitization in therapy groups. *Journal of Abnormal Psychology, 71*, 123-135.

Payne, A., & Blanchard, E.B. (1995). A controlled comparison of cognitive therapy and self-help support groups in the treatment of irritable bowel syndrome. *Journal of Consulting and Clinical Psychology, 63*, 779-786.

Randolph, E.T., Eth, S., Glynn, S., Paz, G.B., Leong, G.B., Shaner, A.L., Strachan, A., Van Vort, W., Escobar, J., & Liberman, R.P. (1994). Behavioural family management in schizophrenia: Outcome from a clinic-based intervention. *British Journal of Psychiatry, 144*, 501-506.

Rehm, L.P., Fuchs, C.Z., Roth, D.M., Kornblith, S.J., & Romano, J.M. (1979). A comparison of self-control and assertion skills treatments of depression. *Behavior Therapy, 10*, 429-442.

Rothbaum, B.O. (in press). A controlled study of eye movement desensitization and reprocessing in the treatment of posttraumatic stress disordered sexual assault victims. *Bulletin of the Menninger Clinic*.

Sargent, J., Solbach, P., Coyne, L., Spohn, H., & Segerson, J. (1986). Results of a controlled experimental outcome study of non-drug treatment for the control of migraine headache. *Journal of Behavioral Medicine, 9*, 291-323.

Saunders, T., Driskell, J.E., Hall, J., Salas, E. (1996). The effect of stress inoculation training on anxiety and performance. *Journal of Occupational Health Psychology 1*, 170-186.

Scogin, F., & McElreath, L. (1994). Efficacy of psychosocial treatments for geriatric depression: A quantitative review. *Journal of Consulting and Clinical Psychology, 62*, 69-74.

Silverman, W.H. (1996). Cookbooks, manuals, and paint-by-numbers: Psychotherapy in the 90s. *Psychotherapy, 33*, 207-215.

Snyder, D.K., & Wills, R.M. (1989). Behavioral versus insight-oriented marital therapy: Effects on individual and interspousal functioning. *Journal of Consulting and Clinical Psychology, 57*, 39-46.

Snyder, D.K., Wills, R.M., & Grady-Fletcher, A. (1991). Long-term effectiveness of behavioral versus insight-oriented marital therapy: A 4-year follow-up study. *Journal of Consulting and Clinical Psychology, 59*, 138-141.

Spiegel, D.A., Bruce, T.J., Gregg, S.F., & Nuzzarello, A. (1994). Does cognitive behavior therapy assist slow-taper alprazolam discontinuation in panic disorder? *American Journal of Psychiatry, 151*, 876-881.

Stevens, V.J., & Hollis, J.F. (1989). Preventing smoking relapse, using an individually tailored skills-training technique. *Journal of Consulting and Clinical Psychology, 57*, 420-424.

Task Force on Promotion and Dissemination of Psychological Procedures. (1995). Training in and dissemination of empirically-validated psychological treatments. T*he Clinical Psychologist, 48*(1), 3-23.

Telch, C.F., Agras, W.S., Rossiter, E.M., Wilfley, D., & Kenardy, J. (1990). Group cognitive-behavioral treatment for the nonpurging bulimic. *Journal of Consulting and Clinical Psychology, 58*, 629-635.

Telles, C., Karno, M., Mintz, J., Paz, G., Arias, M., Tucker, D., & Lopez, S. (1995). Immigrant families coping with schizophrenia: Behavioral family intervention v. case management with a low-income Spanish-speaking population. *British Journal of Psychiatry, 167*, 473-479.

Thackwray, D.E., Smith, M.C., Bodfish, J.W., & Meyers, A.W. (1993). A comparison of behavioral and cognitive-behavioral interventions for bulimia nervosa. *Journal of Consulting and Clinical Psychology, 61*, 639-645.

Trull, T. J., Nietzel, M. T., & Main, A. (1988). The use of meta-analysis to assess the clinical significance of behavior therapy for agoraphobia. *Behavior Therapy, 19*, 527-538.

Turner, J.A., & Clancy, S. (1988). Comparison of operant behavioral and cognitive-behavioral group treatment for chronic low back pain. *Journal of Consulting and Clinical Psychology, 56*, 261-266.

Turner, J.A., Clancy, S., McQuade, K.J., & Cardenas, D.D. (1990). Effectiveness of behavioral therapy for chronic low back pain: A component analysis. Jou*rnal of Consulting and Clinical Psychology, 58*, 573-579.

van Balkom A.J.L.M., van Oppen, P., Vermeulen, A.W.A., Nauta, N.C.E., Vorst, H.C.M., & van Dyck, R. (1994). A meta-analysis on the treatment of obsessive compulsive disorder: A comparison of antidepressants, behaviour and cognitive therapy. *Clinical Psychology Review, 14*, 359-381.

van Oppen, P., de Haan, E., van Balkom, A.J.L.M., Spinhoven, P., Hoogduin, K., & van Dyck, R. (1995). Cognitive therapy and exposure in vivo in the treatment of obsessive compulsive disorder. *Behaviour Research and Therapy, 33*, 379-390.

Walter, H. I., & Gilmore, S. K. (1973). Placebo versus social learning effects in parent training procedures designed to alter the behavior of aggressive boys. *Behavior Therapy, 4*, 361-377.

Wardle, J., Hayward, P., Higgitt, A., Stabl, M., Blizard, R., & Gray, J. (1994). Effects of concurrent diazepam treatment on the outcome of exposure therapy in agoraphobia. *Behaviour Research and Therapy, 32*, 203-215.

Wells, K. C., & Egan, J. (1988). Social learning and systems family therapy for childhood oppositional disorder: Comparative treatment outcome. *Comprehensive Psychiatry, 29*, 138-146.

Wheeler, M.E., & Hess, K.W. (1976). Treatment of juvenile obesity by successive approximation control of eating. *Journal of Behavior Therapy and Experimental Psychiatry, 7*, 235-241.

Wilfley, D. E., Agras, W. S., Telch, C. F., Rossiter, E. M., Schneider, J. A., Cole, A. G., Sifford, L., & Raeburn, S. D. (1993). Group cognitive-behavioral therapy and group interpersonal psychotherapy for the nonpurging bulimic individual: A controlled comparison. *Journal of Consulting and Clinical Psychology, 61*, 296-305.

Wilson, S.A., Becker, L.A., & Tinker, R.H. (1995). Eye movement desensitization and reprocessing (EMDR) treatment for psychologically traumatized individuals. *Journal of Consulting and Clinical Psychology, 63*, 928-937.

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

Woy, R.J., & Efran, J.S. (1972). Systematic desensitization and expectancy in the treatment of speaking anxiety. *Behaviour Research and Therapy, 10*, 43-49.

Zimmer, D. (1987). Does marital therapy enhance the effectiveness of treatment for sexual dysfunction? *Journal of Sex and Marital Therapy, 13*, 193-209.