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Family Involved Psychosocial Treatments for Adult Mental Health Conditions: A Review of the Evidence

February 2012

Prepared for:
Department of Veterans Affairs
Veterans Health Administration
Quality Enhancement Research Initiative
Health Services Research & Development Service
Washington, DC 20420

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PREFACE

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QUERI provides funding for four ESP Centers and each Center has an active VA affiliation. The ESP Centers generate evidence syntheses on important clinical practice topics, and these reports help:

- develop clinical policies informed by evidence,
- guide the implementation of effective services to improve patient outcomes and to support VA clinical practice guidelines and performance measures, and
- set the direction for future research to address gaps in clinical knowledge.

In 2009, the ESP Coordinating Center was created to expand the capacity of QUERI Central Office and the four ESP sites by developing and maintaining program processes. In addition, the Center established a Steering Committee comprised of QUERI field-based investigators, VA Patient Care Services, Office of Quality and Performance, and Veterans Integrated Service Networks (VISN) Clinical Management Officers. The Steering Committee provides program oversight, guides strategic planning, coordinates dissemination activities, and develops collaborations with VA leadership to identify new ESP topics of importance to Veterans and the VA healthcare system.

Comments on this evidence report are welcome and can be sent to Nicole Floyd, ESP Coordinating Center Program Manager, at nicole.floyd@va.gov.

Recommended citation: Meis L, Griffin J, Greer N, Jensen A, Carlyle M, MacDonald R, Rutks I, Wilt T. Family Involved Psychosocial Treatments for Adult Mental Health Conditions: A Review of the Evidence. VA-ESP Project #09-009; 2012

This report is based on research conducted by the Evidence-based Synthesis Program (ESP) Center located at Minneapolis VA Medical Center, Minneapolis, MN funded by the Department of Veterans Affairs, Veterans Health Administration, Office of Research and Development, Quality Enhancement Research Initiative. The findings and conclusions in this document are those of the author(s) who are responsible for its contents; the findings and conclusions do not necessarily represent the views of the Department of Veterans Affairs or the United States government. Therefore, no statement in this article should be construed as an official position of the Department of Veterans Affairs. No investigators have any affiliations or financial involvement (e.g., employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties) that conflict with material presented in the report.

EXECUTIVE SUMMARY

BACKGROUND

Since 2008, the President has signed two new laws expanding VA authority to provide family services for Veterans' mental health care and creating a need to identify efficacious and promising family involved interventions for improving Veterans' mental health outcomes. With one exception, prior reviews have traditionally focused on one condition at a time, limiting comparisons across conditions and preventing a synthesis of the evidence for all mental health conditions, including those with few randomized controlled trials (RCTs; e.g., Posttraumatic Stress Disorder or PTSD). Finally, prior reviews are potentially less relevant to VA populations due to their focus on studies conducted in non-Veteran populations.

Consistent with prior work defining empirically supported psychological treatments, we conducted a systematic review of the published evidence evaluating if (and which) family involved treatments improve patient outcomes (i.e., efficacy) and if (and which) family involved treatments are superior to alternative interventions (i.e., specificity or comparative effectiveness, especially those therapies that include solely the patient, not family members). This topic was nominated by Sonja Batten, PhD, Office of Mental Health Services, and is primarily intended to help refine clinical guidelines by providing information as to whether family treatments improve the outcomes for Veterans receiving care for mental health conditions and if they provide incremental benefits beyond treatment solely involving Veterans. To evaluate findings of greatest validity and relevance to the United States (and especially Veteran) populations, we included studies if they were RCTs conducted in the United States, and we focused on patient outcomes (i.e., final outcomes), including symptoms of mental health conditions and family/couple functioning. Intermediate outcomes of interest included treatment adherence, treatment attendance, patient satisfaction, and social support for patients.

We addressed the following key questions:

Key Question #1. What is the efficacy of family involved interventions in improving outcomes for adult patients with mental health conditions [i.e., how do family involved psychosocial treatments compare to no psychosocial treatment: (a) waitlist/no treatment or (b) medication management only]?

Key Question 2. What is the effectiveness of family involved interventions compared to alternative interventions in improving outcomes for adult patients with mental health conditions [i.e., how do family involved interventions compare to (a) any individually-oriented psychosocial intervention or (b) any alternative family involved intervention]?

METHODS

We searched MEDLINE (Ovid) and PsycINFO for RCTs and systematic reviews published from 1980 to November, 2011 using standard search terms. We limited the search to articles involving subjects over age 18 and published in the English language. Search terms included: family, couples, home nursing, legal guardians, couple therapy, family therapy, and marital therapy. Additional citations were identified from reference lists. Titles, abstracts, and articles were reviewed by trained research personnel. Due to existing prior reviews and the volume of potentially eligible articles identified at the time of full text review, we narrowed our inclusion criteria to studies published after 1995. We excluded studies conducted outside of the United States.

Study characteristics, patient characteristics, final outcomes, and intermediate outcomes were abstracted onto tables for each mental health condition of interest by a trained research associate and verified by a second research associate under the supervision of the Principal Investigator, a Veterans Affairs psychologist. Our primary outcomes included patient-centered mental health outcomes (i.e., symptom severity, relapse rates, and days abstinent from drugs and/or alcohol) and couple/family functioning (i.e., couple/family adjustment, conflict, communication, and intimate partner violence) for participants with mental health conditions. Intermediate outcomes included treatment adherence, treatment attendance, utilization of mental health care, patient satisfaction, and social support for patients. Pooled analyses were performed where possible, but due to heterogeneity of interventions and outcomes across studies, most findings were narratively summarized. We assessed risk of bias for individual studies according to established criteria for randomized controlled trials, taking into consideration whether the treatment was manualized and whether the treatment was monitored for quality and consistency (i.e., treatment integrity).

Strength of evidence was determined for findings reviewed.

DATA SYNTHESIS

We constructed evidence tables for study characteristics and for outcomes, organized by mental health condition. We analyzed studies to compare their characteristics, methods, and findings. Findings from VA or active service populations were identified and highlighted. We compiled a summary of findings for each question based on qualitative and semi-quantitative synthesis of the findings.

PEER REVIEW

A draft version of this report was reviewed by members of our technical expert panel, nominated peer reviewers, as well as clinical leadership. Reviewer comments were addressed and our responses were incorporated in the final report.

RESULTS

We screened 2469 titles, of which 444 articles potentially met eligibility criteria. From these, 5 systematic reviews and 51 publications, which represented 39 unique RCTs, met eligibility

criteria and were included. The findings are described below. The number of studies reviewed for each key question sum to over 39 trials due to trials with more than two conditions (e.g., family treatment, individual treatment, and wait list control). Most studies were of fair quality (10 good, 20 fair, 9 poor), reported multiple outcomes, and may have limited long-term or site applicability. Many reported a large number of comparisons, including non-significant differences between treatment groups. Some of the benefits noted for treatments evaluated in single trials below may be due to chance or reporting bias and their broad clinical applicability should also be viewed with caution. Overall, the majority of studies reviewed compared a family intervention to another active treatment, limiting our conclusions for KQ1.

KEY QUESTION #1. What is the efficacy of family involved interventions in improving outcomes for adult patients with mental health conditions [i.e., how do family involved psychosocial treatments compare to no psychosocial treatment: (a) waitlist/no treatment or (b) medication management only]?

We identified 8 RCTs that compared a family involved intervention to either waitlist/no treatment or medication management only and assessed the following mental health conditions: substance use disorders (1 trial), bipolar disorder (2 trials), PTSD (2 trials), sexual functioning (2 trials), and depression (1 trial). *Low* strength of evidence (one trial for each bullet point) was found regarding the impact of the following interventions on selected patient or intermediate outcomes (e.g., treatment utilization) over waitlist/drug treatment.

SUBSTANCE USE DISORDERS (1 TRIAL)

Family involvement in aftercare planning

- No significant differences were found between conditions on substance use outcomes.
- 92% of patients whose families were involved in aftercare treatment planning initiated substance use treatment after a hospital stay for detoxification. This was a 30% improvement over patients hospitalized for detoxification whose families did not participate in aftercare planning ($r = 0.36$).

BIPOLAR DISORDER (2 TRIALS)

Family therapy

- Neither a general family therapy nor a disorder specific family therapy, delivered in multiple family groups, improved recovery rates over medication management alone.
- Among participants with high levels of family impairment:
    - Disorder specific psychoeducational group family therapy led to significantly fewer depressive episodes per year (mean = 1.4; d = 1.0), 14% percent less time in a mood episode (d = 0.82), and 1.7 fewer mood episodes, yearly (d = 0.92). All effect sizes were considered moderate to large in magnitude.
    - General family therapy led to 0.9 fewer depressive episodes per year (d = 0.70); additional comparisons were non-significant.

Marital psychoeducational therapy

- Compared to medication management alone, marital psychoeducational therapy led to higher global functioning (a difference of 7 points on a 100 point scale; Global Assessment Scale) and greater medication adherence (a difference of 0.5 points on a 6 point scale).
- No significant differences were found between conditions on symptoms of bipolar disorder.

SCHIZOPHRENIA (0 TRIALS)

The efficacy of behavioral family therapy and supportive family therapy was established for schizophrenia prior to the timeframe of studies included in our review (i.e., studies published since 1995). The lack of RCTs comparing family treatments to waitlist is consistent with the more advanced nature of this literature. Prior reviews have concluded that family involved therapy leads to lower rates of relapse and hospitalization than waitlist or drug only treatment.

PTSD (1 TRIAL)

Support groups for family

Eighteen months after participation in Coffee and Family Education and Support groups (CAFES), the average number of patient mental health visits increased by 4 visits versus those assigned to waitlist.

SEXUAL FUNCTIONING (2 TRIALS)

Couples sex therapy in addition to medication for erectile dysfunction

- One trial found subjects assigned to couples sex therapy plus medication reported greater satisfaction with treatment than those assigned to medication alone. Differences between conditions on erectile functioning up to two months after treatment were not significant.
- A second trial found no significant difference in erectile functioning between those assigned to four weeks of couples cognitive behavioral sex therapy plus medication versus those assigned to medication alone after 4 weeks of treatment.

OTHER CONDITIONS EXAMINED IN SINGLE TRIALS (2 TRIALS)

Depression (1 trial)

Compared to waitlist, brief, disorder specific, cognitive behavioral couple therapy significantly improved depression symptoms and marital satisfaction for most comparisons in a small RCT (N = 35).

Binge Eating Disorder (1 trial)

A trial of group cognitive behavioral therapy (CBT) for binge eating disorder found that CBT with or without spouse involvement resulted in better symptom improvement than waitlist.

Key Question #2. What is the effectiveness of family involved interventions compared to alternative interventions in improving outcomes for adult patients with mental health conditions [i.e., how do family involved interventions compare to (a) any individually-oriented psychosocial intervention or (b) any alternative family involved intervention]?

For KQ2, we identified 33 RCTs addressing the following mental health conditions: substance use disorders (21 trials; 15 compared family involved treatments to individual behavioral treatment [KQ2A] with many conducted by a single investigative team), bipolar disorder (5 trials; 2 for KQ2A), schizophrenia (4 trials; 1 for KQ2A), PTSD (1 trial for KQ2A), nicotine dependence (1 trial for KQ2A), and binge eating disorder (1 trial). We found *low* to *moderate* strength evidence for the following conclusions:

SUBSTANCE USE DISORDERS

Behavioral Couple Therapy (BCT) for Substance Use Disorders (21 trials)

Disorder-specific, BCT for substance use disorders compared to individual therapy (9 trials)

- BCT or Behavioral Family Therapy (BFT) lead to 4 fewer days of substance use per month and 44 fewer days per year than individual cognitive behavior therapy (ICBT), up to one year after treatment. Additionally, across 8 of 9 studies included in pooled analyses, participants reported a significantly slower rate of relapse when assigned to BCT or BFT versus individual therapy.
- BCT led to higher relationship adjustment scores (12.5%) one year after treatment, with those receiving BCT reporting relationship adjustment in the satisfied range and ICBT patients reporting scores in the distressed range.
- Effects were similar for men, women, drug use disorders, and alcohol use disorders
- Mixed findings indicated that BCT may result in lower rates of intimate partner violence and higher rates of session attendance than ICBT
- Veterans participating in BCT demonstrated comparable or better rates of percent days abstinent (PDA) from alcohol use (post-treatment: 98.0%; short-term follow-up: 87.6%; long-term follow-up: 82.7%) than average rates of PDA reported in the alcohol use disorder (AUD) trials included in our pooled analyses. However, without direct comparisons between Veteran and non-Veteran samples and between BCT and ICBT, we could not assess whether treatment response for Veterans differs from treatment response for non-Veterans.

Community Reinforcement and Family Training (CRAFT; 3 trials)

CRAFT led to 30-48% greater rates of treatment initiation among patients than non-CRAFT family interventions (e.g., Al-Anon, Johnson Intervention).

A series of single RCTs found significant benefits for specific family interventions over comparators. These findings fall within the category of 'possibly efficacious' interventions. In each case, findings within the trial itself were often mixed. Given only one trial for each

intervention (and the fact that not all comparison groups were individual therapy), our confidence in the consistency or applicability of these findings to other settings or compared to individual therapy is *low* or *insufficient* (low or insufficient strength of evidence). One trial each indicated:

Alterations and Alternatives to BCT for Substance Use Disorders

Adding relapse prevention to BCT (2 trials)

- The addition of family involved relapse prevention to BCT alone led to 13.2% more days of abstinence from alcohol up to 18 months after treatment (4 more days per month or 48.2 more days per year). Differences were non-significant at the 30 month follow-up.
- The benefits of adding relapse prevention to BCT were especially pronounced for patients with the most severe substance use and poorest couple functioning.
- A second trial found no benefit from adding relapse prevention to BCT.

Alternatives to BCT (2 trials)

- One study found that the combination of reciprocal relationship counseling (disorder specific intervention), contingency management, and naltrexone use was superior to contingency management plus naltrexone only for improving family functioning but not for improving abstinence from substance use or days in treatment.
- A second study found that subjects in a motivational and psychoeducational intervention that included couple therapy for male heroin users with pregnant intimate partners, actually reported higher heroin use at short-term follow up, compared to a counselor-led drug treatment support group.

BIPOLAR DISORDER (5 TRIALS)

Family Focused Treatment (FFT; 3 trials)

- FFT led to lower relapse rates of relapse than crisis management with limited family involvement, 24 months after randomization (35% relapse versus 54%). Patients in crisis management relapsed an average of 20 weeks sooner than those in FFT.
- FFT led to lower relapse rates (28% vs. 60%) and lower hospitalization rates (12% vs. 60%) than individual therapy one year after the end of active treatment.
- No significant differences were found between FFT and individual therapy on medication adherence.
- One trial found no significant differences in symptoms of bipolar disorder or family functioning between FFT and either cognitive behavioral therapy or interpersonal and social rhythm therapy, suggesting FFT may perform similarly, but not superior, to other empirically supported, highly intensive interventions in improving symptoms of bipolar disorder.

Family-Focused Treatment-Health Promoting Intervention (FFT-HPI; an adaptation of Family-Focused Treatment; 1 trial)

FFT-HPI leads to fewer manic (4.2 points on the Young Mania Rating Scale, YMRS; d = 0.34) and depression symptoms (5.6 points on the Hamilton Depression Rating Scale, HAM-D; d = 0.67) among bipolar patients than health education provided to families via video diskettes (DVD).

Disorder specific (multifamily groups) versus general family therapy (Problem Centered Systems Therapy of the Family; 1 trial)

Differences in rates of recovery or between general family therapy and disorder specific family therapy, delivered in multiple family groups, were non-significant.

SCHIZOPHRENIA (3 TRIALS)

Multiple Family Groups (MFG; 1 trial)

- MFG as compared to an individually oriented psychosocial intervention, improved negative symptoms of schizophrenia (e.g., blunted affect, alogia, anhedonia, inattention, avolition). At the one year point of a two year intervention, there was a statistically significant difference of one point on a 25 point scale. Those in the MFG condition had a 12% lower rate of hospitalization at state level psychiatric hospitals at one year follow-up.
- Differences on rates of overall hospitalization, community hospitalization, or use of crisis care were non-significant at post-treatment and one year after treatment.

Assertive Community Treatment (ACT) with and without a biweekly multi-family group

No significant differences were found between groups on hospital admissions, symptoms, or family outcomes.

Applied Family Management (AFM; 1 trial)

- No significant differences were found in hospitalization rates, time to hospitalization/ relapse, or symptoms between more intensive AFM and less intensive Supportive Family Management (SFM).
- AFM improved family functioning (patient rejection scale) by 0.32 scale points at 1 year follow-up (medium effect size, 0.31) and 1.03 scale points (medium effect size, 0.30) at 2 year follow-up, over less intensive SFM..
- Authors note that due to limited group differences, findings may have limited clinical significance.

SCHIZOPHRENIA + SUBSTANCE USE DISORDER (1 TRIAL)

- Subjects with a comorbid substance use disorder and serious mental illness (e.g., schizophrenia, bipolar disorder) demonstrated greater improvements in psychiatric symptoms (Brief Psychiatric Rating Scale or BPRS psychosis, medium effect size, 0.32; BPRS total, small effect size, 0.17) when assigned to a longer term (9-18 months) psychoeducational

family program than a brief (2-3 month) family intervention.

- Differences in substance use and global functioning across conditions were non-significant.

PTSD (2 TRIALS)

One trial found no significant differences between exposure therapy with Behavioral Family Therapy (disorder specific family intervention) versus exposure therapy only on symptoms of PTSD or social adjustment; however the family-involved arm resulted in poorer rates of dropout than exposure alone.

OTHER CONDITIONS EXAMINED IN SINGLE TRIALS (2 TRIALS)

There were no differences between a family involved intervention and individually-oriented treatment in abstinence from smoking or social support in one trial examining smoking cessation in pregnant women and in days of binge eating, depression scale scores, relationship adjustment scale scores, or treatment attendance in a second examining binge eating disorder.

DISCUSSION

The literature we reviewed examined a broad number of family involved interventions for mental health conditions. Importantly, many of our outcomes of interest, including treatment adherence, social support, treatment satisfaction, couple/family conflict, couple/family communication, and intimate partner violence were rarely presented. This was also true of a primary outcome (family and couple functioning) for bipolar disorder and schizophrenia. Some of the outcomes we describe are intermediate, rather than focused on patient symptoms and functioning. For example, while treatment initiation, participation, and attendance in counseling sessions were of interest, they may be of low-value (and actually indicate ineffective health care resource utilization) in the absence of demonstrated improvements in symptom or functioning outcome, especially if interventions lead to increased resource utilization without clinical benefit. Furthermore, many of the positive findings are based on multiple outcomes reported and long-term maintenance of effects beyond the study period are not well known. The majority of studies reviewed compared family interventions to another active treatment, limiting our ability to draw conclusions about the general efficacy (i.e., compared to waitlist or medication only) of the interventions reviewed. In particular some studies compared one form, type, intensity, and method of family or couple therapy versus another or to a waitlist. Thus the evidence regarding the incremental effectiveness of family or couple therapy compared to treatments that solely involve the patient or more ready access to care is limited especially outside of substance use disorders. Over half of the trials reviewed (56%; N = 22) examined family interventions for substance use disorders. For this condition many of the studies were conducted by a single investigative team and thus generalizability to other populations, settings, and therapeutic teams are not clearly known.

Generally, across the 39 trials, family involved treatments for mental health conditions were as effective as or more effective than alternative psychotherapies, with two exceptions. The addition of approximately 23 weeks of disorder-specific behavioral family therapy after 9 weeks (18 sessions) of exposure therapy for PTSD lead to greater rates of treatment dropout than exposure

therapy alone or waitlist. Additionally, male opiod users with pregnant female partners who participated in a combination of motivational enhancement, case management, contingency management, and psychoeducational couple therapy reported greater heroin use at short-term follow-up than patients participating in usual care. With the exception of CRAFT and BCT, many of the trials comparing family therapies to alternative family or individual therapies found no significant differences when interventions were equally as intensive.

Among good to fair quality studies with *moderate* strength of evidence, we reached the following conclusions:

1. Behavioral couple therapy (BCT), a disorder-specific couple therapy, results in lower rates of substance use and greater relationship adjustment than individually-oriented treatments over the year following treatment for drug use and alcohol use in both male and female patients
2. Community Reinforcement and Family Training (CRAFT), a disorder-specific and partner-assisted intervention, conducted solely with the family members of individuals with substance use disorders, leads to better rates of treatment initiation among individuals with substance use disorders than alternative family interventions.

Low strength of evidence from single trials indicated that some additional family interventions improve patient symptoms, family functioning, and treatment initiation (see Executive Summary Table below). The existing evidence is limited by small numbers of good to high quality studies and inconsistency of findings both across and within trials. Our findings and strength of evidence ratings are based solely on the results of our search, which included only US studies since 1995 of family involved psychosocial treatments for mental health conditions that included patient outcomes. Consequently, conclusions do not include behavioral family therapy and supportive family therapy for schizophrenia which were established as efficacious prior to our review. Although a body of evidence supporting family treatment for schizophrenia for prevention or delay of relapse exists, many trials did not meet our search criteria. The quality of reporting in most these studies is poor and the applicability of some results from studies outside the United States, particularly in China, is limited. With the exception of behavioral couple therapy and CRAFT for substance use disorders, the literature in U.S. populations and especially Veterans is not well-developed.

FUTURE RESEARCH

The biggest needs for future research are for high quality RCTs of family interventions with Veterans, including BCT and CRAFT, and studies that replicate the family involved treatments identified above as 'possibly efficacious.' In particular, studies are needed (especially in conditions beyond substance use disorders) that compare family/couples interventions to interventions directed solely at patients in order to evaluate the incremental effectiveness of family/couple therapies. Additionally, there is a need for development and standardized reporting of patient centered outcomes (rather than intermediate or process measures) using measures and analysis strategies that are comparable across studies. The clinical significance of many of the reported outcomes including scale scores is not well established. Determining levels that establish clinical significance (and whether interventions achieve a clinically significant effect)

would be of value for practitioners, researchers and health care policy makers. Further work is also needed on groups underrepresented across the literature, but important to the VA. These include studies of women, minorities, non-traditional family constellations (i.e., close friends and same sex couples), and patients with complex conditions and common constellations of problems (i.e., those with multiple comorbidities). Also, some work has found that family therapies are especially beneficial when patients are experiencing high levels of family distress or more severe symptoms. Further work is needed to replicate these preliminary findings. RCTs of family interventions for mental health conditions in the US were especially sparse for PTSD, anxiety disorders, sexual functioning, depression, eating disorders, and personality disorders. Future reviews should also examine the effects of family involved interventions on caregiver outcomes, patient preferences for which family members to include and how to involve them in treatment, and methods of engaging patients and their families in family treatment.

EXECUTIVE SUMMARY TABLE.

Family Interventions since 1996 that Improve Outcomes for US Patients with Mental Health (MH) Conditions

MH Condition	Intervention	Comparator	Outcome	Efficacy Status	Strength of Evidence
Alcohol Use Disorders	Behavioral Couple Therapy	Individual Behavioral Therapy	1) Substance Use	1	Moderate[a]
			2) Relationship Adjustment	1	Moderate[a]
			3) Intimate Partner Violence	3	Low
			4) Attendance	3	Low
	Brief family intervention to promote continuing care	Treatment-as-usual	1) Substance Use	ND	Low
			2) Treatment Initiation	3	Low
	Behavioral Couple Therapy + relapse prevention	Behavioral Couple Therapy	1) Substance Use	3	Low
			2) Relationship Adjustment	ND	Low
	Behavioral Family Treatment	Individual Behavioral Therapy	1) Substance Use	3	Low
			2) Family Functioning	ND	Low
	CRAFT	Alternative Family Treatments	1) Substance Use	ND	Low
			2) Family Functioning	ND	Low
			3) Treatment Initiation	3	Low
Drug Use Disorders	Behavioral Couple Therapy	Individual Behavioral Therapy	1) Substance Use	1	Moderate[a]
			2) Relationship Adjustment	1	Moderate[a]
			3) Intimate Partner Violence	3	Low
			4) Attendance	1	Low[b]
	Behavioral Family Treatment	Individual Behavioral Therapy	1) Substance Use	3	Low
			2) Family Functioning	3	Low
	CRAFT	Al-Anon/Nar-Anon	1) Substance Use	ND	Moderate
			2) Family Functioning	ND	Low
			3) Treatment Initiation	1	Moderate

MH Condition	Intervention	Comparator	Outcome	Efficacy Status	Strength of Evidence
Bipolar	Family-Focused Treatment-Health Promoting Intervention	Health information DVDs reviewed by caregivers	1) Symptoms	3	Low
	Family-Focused Treatment	Crisis management with two in-home family psychoeducation sessions	1) Symptoms	3	Low
			2) Medication Adherence	3	Low
		Problem-focused, psychoeducational Individual therapy	1) Symptoms	3	Low
			2) Medication Adherence	ND	Low
		Cognitive Behavior Therapy	1) Symptoms	ND	Low
		Interpersonal and social rhythm therapy	1) Symptoms	ND	Low
	Marital intervention + medication	Medication only	1) Symptoms	ND	Low
			2) Global Functioning	4	Low
			3) Medication Adherence	4	Low
Schizophrenia	Multiple Family Groups	Standard, individually-oriented care	1) Symptoms	ND	Low
			2) Any Hospitalization	ND	Low
			3) State Hospitalization	3	Low
			4) MH Care Utilization	ND	Low
	Family intervention + in home behavioral family therapy (Applied Family Management)	Family intervention	1) Symptoms	ND	Low
			2) Family Functioning	ND	Low
			3) Patient Rejection by Family	3	Low
			4) MH Care Utilization	ND	Low
			5) Attendance	ND	Low
Schizophrenia & Substance Use Disorder	Psychoeducation + skills oriented training (Family Intervention for Dual Disorder)	Short term psychoeducation	1) Schizophrenia Symptoms	3	Low
			2) Substance Use	ND	Low
			3) Global functioning	3	Low
			4) Medication Adherence	ND	Low
PTSD	Coffee and Family Education and Support	Waitlist	1) Number of MH Visits	4	Low
Depression	Brief problem-focused couple therapy	Waitlist	1) Symptoms	4	Low
			2) Relationship Adjustment	4	Low

Efficacy Status:
1 = Efficacious & Specific = superior to placebo, nonspecific, or alternative intervention in at least two studies conducted by independent research teams.
2 = Efficacious; superior to waitlist in RCTs conducted by two independent research teams.
3 = *Possibly* Efficacious & Specific; criteria met for efficacious and specific from a single study.
4 = *Possibly* Efficacious; criteria met for efficacious from a single study.
ND = No significant differences found

Strength of Evidence:
High = High confidence evidence reflects true effect. The effect and confidence in the estimate of effect is unlikely to change with further research.
Moderate = moderate confidence that evidence reflects true effect. The effect and confidence of the effect may change with further research.
Low = Low confidence evidence reflects true effect. The effect and confidence of the effect will likely change with further research.

[a]Seven of the nine trials comparing these conditions were written by or based on data collected by Dr. Fals-Stewart. See Substance Use Disorders Results for KQ2 for discussion.
[b]Several studies also found non-significant differences, leading to low strength of evidence.

ABBREVIATIONS TABLE

AA	Alcoholics Anonymous
ABCT	Alcohol Behavior Couple Therapy
ABIT	Alcohol Behavior Individual Therapy
ABMT	Alcohol Focused Spouse Involvement Plus Behavioral Marital Therapy
ACQ	Area of Change Questionnaire
ACT	Assertive Community Treatment
AFM	Applied Family Management
AL-NAR FT	Alcoholics Anonymous / Narcotics Anonymous Facilitation Therapy
ASI	Addiction Severity Index
AUD	Alcohol Use Disorder
BBCT	Brief Behavioral Couple or Marital Therapy
BCT	Behavioral Couple or Marital Therapy
BDI-II	Beck Depression Inventory 2nd Edition
BFT	Behavioral Family Therapy
BFTI	Brief Family Treatment Intervention
BMRS	Bech-Rafaelsen Mania Scale
BMT	Behavioral Marital Therapy
BPRS	Brief Psychiatric Rating Scale
CAFES	Coffee and Family Education and Support
CAPS	Clinician Administered Posttraumatic Stress Disorder Scale
CBQ	Couples Behavior Questionnaire
CBT	Cognitive Behavioral Therapy
CC	Collaborative Care
CM	Contingency Management
CRAFT	Community Reinforcement and Family Training
CRT	Community Reinforcement Training Intervention
CSQ	Client Satisfaction Questionnaire
CTS	Conflict Tactics Scale
DAS	Dyadic Adjustment Scale
DSM	Diagnostic And Statistical Manual of Mental Disorders
DVD	Video Diskette
ED	Erectile Dysfunction
EDEQ	Eating Disorder Examination Questionnaire
EDITS	Erectile Dysfunction Inventory of Treatment Satisfaction
EE	Expressed Emotions
ESP	Evidence-based Synthesis Program
FES	Family Environment Scale
FFT	Family Focused Training
FFT-HPI	Family-Focused Treatment-Health Promoting Intervention
FIDD	Family Intervention For Dual Disorders
FPE	Family Psychoeducation
FSO	Family or Significant Other
GAS	Global Assessment Scale

HAM-D	Hamilton Depression Rating Scale
HOPE	Helping Other Partners Excel
HSR&D	Health Services Research & Development Service
ICBT	Individual Cognitive Behavior Therapy
ICD	International Classification of Diseases
IIEF	International Index For Erectile Function
IOE	Impact of Events Scale
IPT	Interpersonal Psychotherapy
IPSRT	Interpersonal And Social Rhythm Therapy
ITT	Intention to Treat
KQ	Key Question
LIFE-RIFT	Longitudinal Interval Follow-Up Evaluation - Range of Impaired Function Tool
MAT	Locke Wallace Marital Adjustment Test
MFG	Multiple Family Group
MH	Mental Health
MHS	Marital Happiness Scale
MMSE	Mini-Mental State Exam
M-PTSD	Mississippi Scale for Combat-Related Posttraumatic Stress Disorder
MSANS	Modified Scale for The Assessment Of Negative Symptoms
NA	Not Applicable
ND	No Significant Difference
NR	Not Reported
NS	Not Significant
OIF/OEF	Operation Iraqi Freedom/Operation Enduring Freedom
PACT	Psychoeducational Attention Control Treatment
PAIR	Personal Assessment of Intimacy in Relationships
PDA	Percentage of Days Abstinent
PDHD	Percentage of Days of Heavy Drinking
PDPSU	Percentage of Days Primary Substance Use
PL	Public Law
PORT	Patient Outcomes Research Team
PSBCT	Parent Skills with Behavioral Couple Therapy
PTSD	Posttraumatic Stress Disorder
QOL	Quality of Life
RCT	Randomized Control Trial
RHS	Relationship Happiness Scale
RP	Relapse Prevention
SA	Substance Abuse
SADS-C	Schedule For Affective Disorders And Schizophrenia –Change Version
SAS	Social Adjustment Scale
SAS-FV	Social Adjustment Scale III, Family Version
S-BCT	Standard- Behavioral Couple Or Marital Therapy
SC	Standard or usual care
SFM	Supportive Family Management
SO	Significant Other

SPSI	Social Problem Solving Inventory
STEP-BD	Systematic Treatment Enhancement Program For Bipolar Disorder
SUD	Substance Use Disorder
SV	Spousal Violence
RCT	Randomized Control Trial
TAU	Treatment As Usual
TLFB	Time Line Follow Back
TX	Treatment
US	United States
VA	Veterans Affairs
VS	versus
VISN	Veterans Integrated Service Networks
YMRS	Young Mania Rating Scale