Evidence-based Synthesis Program (ESP)

Family Involved Psychosocial Treatments For Adult Mental Health Conditions

A Review of the Evidence

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June 18, 2012

Evidence-based Synthesis Program (ESP)

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Disclosure

This report is based on research conducted by the Evidence-based Synthesis Program (ESP) Center located at the Minneapolis VA Healthcare System, Minneapolis, Minnesota, 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.

Evidence-based Synthesis Program (ESP)

Veterans Health Administration
R&D
www.research.va.gov

VA Evidence-based Synthesis (ESP) Program Overview

- **Sponsored by VA Office of Research & Development, Quality Enhancement Research Initiative (QUERI).**
- **Established to provide timely and accurate syntheses/reviews of healthcare topics identified by VA clinicians, managers and policy-makers, as they work to improve the health and healthcare of Veterans.**
- **Builds on staff and expertise already in place at the Evidence-based Practice Centers (EPC) designated by AHRQ. Four of these EPCs are also ESP Centers:**
  - Durham VA Medical Center; VA Greater Los Angeles Health Care System; Portland VA Medical Center; and Minneapolis VA Medical Center.

Evidence-based Synthesis Program (ESP)

- Provides evidence syntheses on important clinical practice topics relevant to Veterans, and these reports help:
    - develop clinical policies informed by evidence,
    - the implementation of effective services to improve patient outcomes and to support VA clinical practice guidelines and performance measures, and
    - guide the direction for future research to address gaps in clinical knowledge.
- Broad topic nomination process – e.g. VACO, VISNs, field – facilitated by ESP Coordinating Center (Portland) through online process:

http://www.hsrd.research.va.gov/publications/esp/TopicNomination.cfm

Evidence-based Synthesis Program (ESP)

- Steering Committee representing research and operations (PCS, OQP, ONS, and VISN) provides oversight and guides program direction.
- Technical Advisory Panel (TAP)
    - Recruited for each topic to provide content expertise.
    - Guides topic development; refines the key questions.
    - Reviews data/draft report.
- External Peer Reviewers & Policy Partners
    - Reviews and comments on draft report
- Final reports posted on VA HSR&D website and disseminated widely through the VA.

http://www.hsrd.research.va.gov/publications/esp/reports.cfm

Evidence-based Synthesis Program (ESP)

Current Report

Family Involved Psychosocial Treatments For Adult Mental Health Conditions

A Review of the Evidence

June, 2012

Full-length report available on ESP website:

http://www.hsrd.research.va.gov/publications/esp/reports.cfm

Family Involved Psychosocial Treatments

Overview

1. Need for Review
2. Key Questions
3. Search Strategy
4. Analyses and Approach
5. Results
   - Describe RCTs Broadly
   - Address Key Question 1 by Condition
   - Address Key Question 2 by Condition
6. Summarize
7. Limitations
8. Future Research

Poll Question #1

What is your primary roll in the VA?

1. Student, trainee, or fellow
2. Clinician
3. Researcher
4. Manager or other policy maker
5. Other

Family Involved Psychosocial Treatments

Rationale

- Shifts in VA Care
  - Greater emphasis on including families
  - Expanding VA authority to provide family services

- Need to Identify
  - Efficacious and promising family interventions
  - Which family interventions are superior to alternative approaches (individually-oriented or family-oriented)
  - Physical and Mental Health

Poll Question #2

My knowledge of evidence based family treatments for mental health conditions is

- This is my first exposure
- Novice
- Moderately familiar
- I have training in family mental health treatment(s)
- I deliver or research family mental health treatment(s)

Present Study

Key Questions

Key Question 1: Efficacy

- What is the efficacy of family involved interventions in improving outcomes for adult patients with mental health conditions
    - compared to no psychosocial treatment: (a) waitlist/no treatment or (b) medication management only

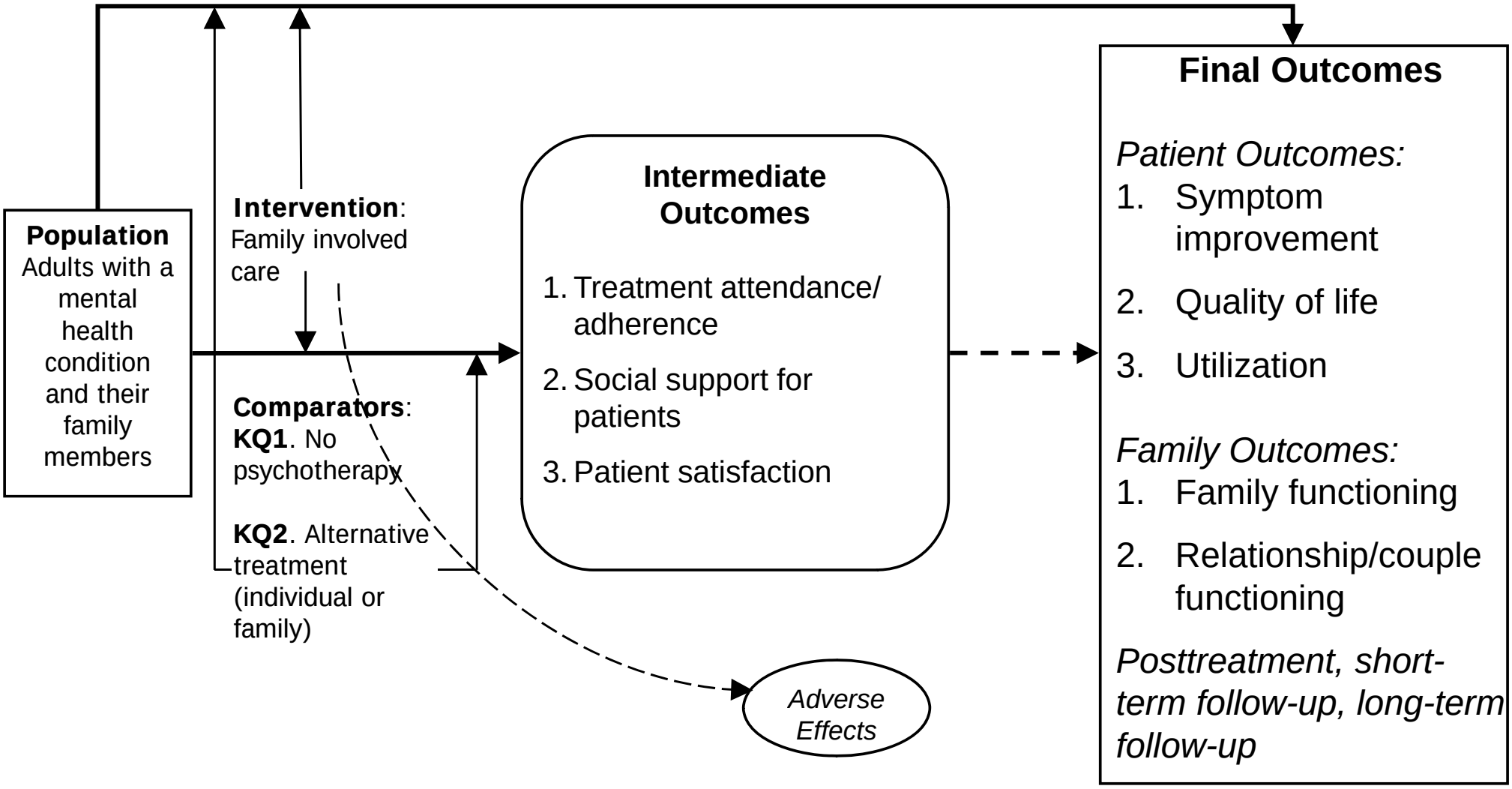
Present Study

Key Questions

Key Question 2: Specificity

- What is the effectiveness of family involved interventions *compared to alternative interventions* in improving outcomes for adult patients with mental health conditions
    - compared to any (a) individually-oriented or (b) alternative family-oriented psychosocial intervention

Analytic Framework with Patient (vs Caregiver) Focused Outcomes



Search Strategy

- Literature Search:
  - MEDLINE and PsycINFO
  - Search terms included:
    - family, couples, home nursing, legal guardians, grandparents OR
    - couple therapy, family therapy, and marital therapy
- **Inclusion Criteria**
  - 1996 to Nov 2011
  - English
  - RCT/RCT review
  - Family-involved psychosocial treatment
  - Mental health condition
- **Exclusion Criteria**
  - Age < 18
  - Non-US study
  - No outcomes of interest
  - Not a condition of interest

Analyses

For all interventions, we rated their efficacy, strength of evidence, and quality of each RCT

Efficacy

- Efficacious and specific: superior in at least 2 RCTs conducted by independent research teams compared to placebo, nonspecific, or an alternative intervention
- Efficacious: superior in at least 2 RCTs conducted by independent research teams compared no psychosocial treatment
- Possibly efficacious or possibly efficacious and specific: above criteria are met by a 1 study

Analyses

Study Quality (fair, good, poor)

- Allocation concealment, blinding, intention-to-treat analysis, reporting of withdrawals/drop-outs (Higgins, 2011)
- Treatment integrity: Use of manuals, supervision, fidelity to manual

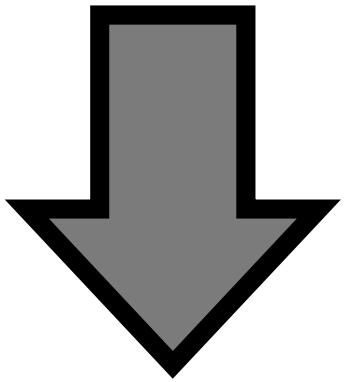
Strength of Evidence (low, moderate, high):

- Confidence that the evidence reflects true effect and additional research is unlikely to change estimate of the effect (Owens, 2010)

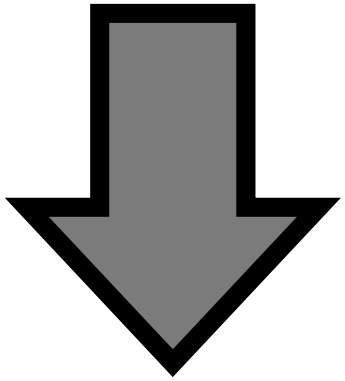
Pooled analyses

- Behavioral couples therapy for substance use
- Weighted mean differences and Hedges' g adjusted for sample size using a random-effects model (.2 small, .5 medium, .8 large effect size)

Literature Search Results



Screening: 2,469 abstracts reviewed (excluded 2,025); 444 full text articles reviewed



Full Text Review: 444 articles (excluded 397); hand search/author correspondence added 4

Included: 51 articles

39 unique RCTs

Overview of RCTs

Mental Health Condition	Unique Trials	Veteran Trials
Substance Use Disorders	22	3
Bipolar	6	NR
Schizophrenia Spectrum	4	NR
Posttraumatic Stress Disorder (PTSD)	2	1
Erectile Dysfunction	2	NR
Depression	1	NR
Binge Eating Disorder	1	NR
Nicotine Dependence	1	NR
Total	39	4

NR = not reported

Overview of RCTs

21 different active family treatments

Most of fair quality

- 10 good, 20 fair, 9 poor

Exclusions

- Active psychosis, suicidality, intimate partner violence, pregnancy or counter-indicated medical conditions when medication was required (e.g., psychotic disorders, erectile functioning)
- Dual substance use disorders

KQ1 (efficacy): 8 with waitlist or medication only

KQ2 (specificity): 33 with an alternative intervention (less, similarly, or more intensive)

Key Question 1: Efficacy
vs Waitlist or Medication

Mixed evidence with non-significant findings or findings favoring family treatment across 6 mental health conditions

Improved symptoms and marital adjustment

- Depression (1 trial)
  - Brief, disorder specific, cognitive behavioral couple therapy

Improved initiation/attendance

- 2 trials: PTSD and substance use
  - Family involving in aftercare planning while in detox
  - Coffee and Family Education and Support groups (CAFES)

Key Question 1: Efficacy *vs Waitlist or Medication*

No differences in symptoms

- Bipolar disorder (2 trials)
  - Better global functioning and medication adherence
  - *Distressed families*: lower mood episodes
- Erectile dysfunction (2 trials)
  - Greater satisfaction with treatment
- PTSD (1 trial)
  - Initially better outcomes erode with time
  - Higher drop out
- Binge eating disorder (1 trial)
  - Lower binge eating, but similar to individually-oriented intervention

Key Question 2: Specificity
Substance Use Disorders

Substance use disorders (21 trials)

- BFT or BCT (16 trials)
  - Pooled analyses comparing BCT/BFT to individual therapy
    - 9 pooled on substance use outcomes (percent days abstinent)
    - 10 pooled on relationship adjustment (Dyadic Adjustment Scale)
- CRAFT (3 trials)
- Single trial interventions (2 trials)

Key Question 2: Specificity
Substance Use Disorders

BCT/BFT versus individual therapy

Slower rate of relapse for the BCT/BFT

- Intervention effects eroded more slowly

Meta-Analyses

- BCT/BFT greater days abstinent post treatment, short term, and long term follow-up compared to individually-oriented treatment
  - Post: weighted mean difference (WMD) = 4.43% days abstinent, 95% CI = 2.16, 6.70
  - 6 months: WMD = 11.21% days abstinent, 95% CI = 7.17, 15.24
  - 12 months: WMD = 11.93% days abstinent, 95% CI = 7.82, 16.04.

Key Question 2: Specificity
Substance Use Disorders

Sensitivity Analysis

Weighted Mean Difference between BCT/BFT and Individual Treatment			
Difference in Days Use	Post	6m	12m
Per month (all trials)[1]			
Per month (other labs)[2]			
Per year (all trials)[1]			
Per year (other labs)[2]			

[1]9 trials; [2]2 trials; [3]1 trial

Key Question 2: Specificity
Substance Use Disorders

Sensitivity Analysis

Weighted Mean Difference between BCT/BFT and Individual Treatment			
Difference in Days Use	Post	6m	12m
Per month (all trials)[1]	1.3	3.4	3.6
Per month (other labs)[2]	3.8	4.1	3.7[3]
Per year (all trials)[1]	16.2	40.9	43.5
Per year (other labs)[2]	46.4	49.7	44.9[3]

[1]9 trials; [2]2 trials; [3]1 trial

Key Question 2: Specificity
Substance Use Disorders

Sensitivity Analysis

Weighted Mean Difference between BCT/BFT and Individual Treatment			
Difference in Days Use	Post	6m	12m
Per month (all trials)[1]	**1.3**	3.4	3.6
Per month (other labs)[2]	**3.8**	4.1	3.7[3]
Per year (all trials)[1]	**16.2**	40.9	43.5
Per year (other labs)[2]	**46.4**	49.6	44.9[3]

[1]9 trials; [2]2 trials; [3]1 trial

Key Question 2: Specificity
Substance Use Disorders

Relationship Adjustment Outcomes

- Significant group differences favoring BCT at all time points

Indicator	Post	6m	12m
BCT Average DAS[1]			
Individual Therapy Average DAS[1]			
Effect Size			
Confidence Interval			

Note. Below 97.5 used as a screen for relationship distress (scores range from 0 – 151; Christenson et al. 2004). [1]Weighted Means.

Key Question 2: Specificity
Substance Use Disorders

Relationship Adjustment Outcomes

- Significant group differences favoring BCT at all time points

Indicator	Post	6m	12m
BCT Average DAS[1]	112.7	106.8	101.2
Individual Therapy Average DAS[1]	100.5	93.5	90
Effect Size	0.75	0.78	0.52
Confidence Interval	0.56-0.93	0.52-1.03	0.16-0.88

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Substance Use Disorders

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Key Question 2: Specificity
Substance Use Disorders

BCT Alterations

- BFT vs. individual therapy (2 trials)
  - One trial found no differences in substance use
  - The other trial favored BFT at 18 months
    - differences eroded at 30 months
- BCT vs. brief BCT (2 trials)
  - outcomes largely similar

Key Question 2: Specificity
Substance Use Disorders

Some BCT Alterations and Subgroups

BCT vs. BCT + relapse prevention (2 trials)

- One trial found no differences
- The other trial, a *Veteran study*, BCT + relapse prevention superior on substance use 18 months posttreatment
  - Differences eroded at 30 months
  - For BCT alone: relationship adjustment improved from pre through 12 months
  - For BCT + relapse prevention: relationship adjustment improved from pre through 24 months
  - Strongest difference among distressed couples

Key Question 2: Specificity
Substance Use Disorders

CRAFT (3 trials)

- Compared to alternative family interventions
  - Improves initiation by 30 to 48%
  - No significant difference in substance use (2 trials)
  - No significant difference in couple/family functioning (2 trials)

2 Additional Opioid Interventions

- Greater heroin use and less partner support among men with dual using, treatment seeking, pregnant partners
- Improved family functioning but not substance use among opioid users

Substance Use Disorders:
Initially Efficacious and/or Specific

Family Intervention	Comparator	Outcome	Efficacy Evidence

ND = No Differences; 1 = Efficacious & Specific; 2 = Efficacious; 3 = *Possibly* Efficacious & Specific (1 study); 4 = *Possibly* Efficacious (1 study); Moderate = moderate confidence evidence reflects true effect. Low = Low confidence evidence reflects true effect. [a]7 of 9 trials conducted by a single laboratory.

Substance Use Disorders:
Initially Efficacious and/or Specific

Family Intervention	Comparator	Outcome	Efficacy	Evidence
BCT	Individual Behavioral Therapy	Substance Use	1	Moderate[a]
		Relationship Adjustment	1	Moderate[a]
BCT + relapse prevention	BCT	Substance Use	3	Low
		Relationship Adjustment	ND	Low
BFT	Individual Behavioral Therapy	Substance Use	3	Low
		Family Functioning	3	Low

ND = No Differences; 1 = Efficacious & Specific; 2 = Efficacious; 3 = *Possibly* Efficacious & Specific (1 study); 4 = *Possibly* Efficacious (1 study); Moderate = moderate confidence evidence reflects true effect. Low = Low confidence evidence reflects true effect. [a]7 of 9 trials conducted by a single laboratory.

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Family Intervention	Comparator	Outcome	Efficacy	Evidence
BCT	Individual Behavioral Therapy	Substance Use	1	Moderate[a]
		Relationship Adjustment	1	Moderate[a]
BCT + relapse prevention	BCT	Substance Use	3	Low
		Relationship Adjustment	ND	Low
BFT	Individual Behavioral Therapy	Substance Use	3	Low
		Family Functioning	3	Low
CRAFT	Alternative Family Treatments	Substance Use	ND	Low
		Family Functioning	ND	Low
		Treatment Initiation	1	Moderate
Family aftercare for detox	Detox only	Substance Use	ND	Low
		Treatment Engagement	3	Low
Couple counseling, contingency management, & Naltrexone	Contingency management & naltrexone	Substance Use	ND	Low
		Family Functioning	3	Low

ND = No Differences; 1 = Efficacious & Specific; 2 = Efficacious; 3 = *Possibly* Efficacious & Specific (1 study); 4 = *Possibly* Efficacious (1 study); Moderate = Moderate confidence evidence reflects true effect. Low = Low confidence evidence reflects true effect. [a]7 of 9 trials conducted by a single laboratory.

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Initially Efficacious and/or Specific

Family Intervention	Comparator	Outcome	Efficacy	Evidence
BCT	Individual Behavioral Therapy	Substance Use	**1**	**Moderate[a]**
		Relationship Adjustment	**1**	**Moderate[a]**
BCT + relapse prevention	BCT	Substance Use	3	Low
		Relationship Adjustment	ND	Low
BFT	Individual Behavioral Therapy	Substance Use	3	Low
		Family Functioning	3	Low
CRAFT	Alternative Family Treatments	Substance Use	ND	Low
		Family Functioning	ND	Low
		Treatment Initiation	**1**	**Moderate**
Family aftercare for detox	Detox only	Substance Use	ND	Low
		Treatment Engagement	3	Low
Couple counseling, contingency management, & Naltrexone	Contingency management & naltrexone	Substance Use	ND	Low
		Family Functioning	3	Low

ND = No Differences; 1 = Efficacious & Specific; 2 = Efficacious; 3 = *Possibly* Efficacious & Specific (1 study); 4 = *Possibly* Efficacious (1 study); Moderate = Moderate confidence evidence reflects true effect. Low = Low confidence evidence reflects true effect. [a]7 of 9 trials conducted by a single laboratory.

Key Question 2: Specificity
Bipolar Disorder (5 trials)

Family Focused Treatment (FFT) superior to less intensive but no different from equally intensive interventions

FFT or FFT-Health Promoting Intervention (FFT-HPI): 4 trials

- Better symptom response than alternative, less intensive, family interventions (2 trials)
- Mixed differences with individual therapy (2 trials)

General Family Therapy vs. Disorder Specific Multifamily Groups: 1 trial

- No differences in recovery rates

Bipolar Disorder:
Initially Efficacious and/or Specific

Family Intervention	Comparator	Outcome	Efficacy	Evidence
FFT Health Promoting	Health Information DVDs	Symptoms	3	Low
FFT	Crisis Management with In-Home Family Sessions	Symptoms	3	Low
	Individual Psychoeducation	Symptoms	3	Low
	Cognitive Behavioral Therapy	Symptoms	ND	Low
	Interpersonal and Social Rhythm Therapy	Symptoms	ND	Low

Note. ND = No Differences; 1 = Efficacious & Specific; 2 = Efficacious; 3 = *Possibly* Efficacious & Specific (1 study); 4 = *Possibly* Efficacious (1 study); Moderate = Moderate confidence evidence reflects true effect. Low = Low confidence evidence reflects true effect.

Key Question 2: Specificity
Schizophrenia (4 trials)

Long Term Interventions with Complex Patients and Mixed Findings

Multifamily Psychoeducational Groups vs Individual Psychoeducational Intervention (1 trial)

- Mixed findings
  - One year into treatment: Favored multifamily groups in negative symptoms and 12% lower state hospitalization
  - One year after 2 year treatment: No differences in hospitalization or crisis care

Key Question 2: Specificity
Schizophrenia (4 trials)

Intensive vs. Less Intensive Family Interventions (3 trials)

- No differences in
  - symptoms (2 trials), rates of hospitalization (2 trials), family adjustment (1 trial)

- Significant differences favoring intensive treatments in
  - Employment during 2 year treatment not by final assessment (1 trial)
  - Rates of family rejection (1 trial)
  - Schizophrenia symptoms for dual diagnosis patients (schizophrenia and substance use) but not lower substance use (1 trial)

Schizophrenia:
Initially Efficacious and/or Specific

Family Intervention	Comparator	Outcome	Efficacy	Evidence
Multiple Family Groups	Standard, individually-oriented care	Symptoms	3	Low
		Any Hospitalization	ND	Low
		State Hospitalization	3	Low
Applied Family Management	Family intervention	Symptoms	ND	Low
		Family Adjustment	ND	Low
		Patient Rejection	3	Low
Family Intervention for Dual Disorder	Short term psychoeducation	Schizophrenia Symptoms	3	Low
		Substance Use	ND	Low

Note. ND = No Differences; 1 = Efficacious & Specific; 2 = Efficacious; 3 = *Possibly* Efficacious & Specific (1 study); 4 = *Possibly* Efficacious (1 study); Moderate = Moderate confidence evidence reflects true effect. Low = Low confidence evidence reflects true effect.

Key Question 2: Specificity
Additional Single Trial Conditions (2 trials)

PTSD

- No significant differences in PTSD symptoms between exposure therapy with or without family therapy for Vietnam Veterans
- Higher rates of drop out

Binge Eating Disorder

- No differences between CBT for binge eating with or without spouse involvement (partner-assisted)

Smoking among Pregnant Women

- No differences between individually oriented or partner assisted treatment

Conclusions

Since 1995, literature largely underdeveloped outside of substance use

Outside of BCT and CRAFT, many trials did not compare conditions on

- Family/couple functioning
- Treatment adherence
- Satisfaction with care

Many studies evinced mixed findings either favoring family treatment of demonstrating non-significant differences

Conclusions

Two Exceptions: Few negative effects

- PTSD: Exposure therapy + disorder specific family therapy led to greater treatment drop out

- Heroin use: Family intervention for male opioid users with pregnant opioid dependent treatment-seeking patients led to greater heroin use and poorer support

Conclusions

Efficacious and Specific Interventions for Substance Use

BCT or BFT (16 trials)

- Improves substance use and relationship adjustment more than individual therapy
- Many trials in the same research group
- Most trials excluded participants where family had a substance use disorder

Conclusions

Efficacious and Specific Interventions for Substance Use

CRAFT (3 trials)

- Improves treatment initiation (intermediate outcome)
- Differences in substance and family functioning non-significant

- *CRAFT is designed in promote initiation*
  - Should be paired with an evidence based treatment to ensure adequate treatment response

Conclusions:
Bipolar and Schizophrenia

FFT or FFT-HPI (4 trials)

- Better symptom response than alternative, less intensive, family interventions (2 trials)
- Mixed differences with equally intensive, individual interventions
- No family outcomes reported

Schizophrenia studies

- Efficacy of family treatments established prior to this review
- Studies reviewed included complex cases (multiple diagnoses or problems), but provided little clarity regarding which family interventions are best

Conclusions

Limitations among Trials Reviewed

Most trials were

- Fair to poor quality
- Mostly white, male samples, under 40 years old
- Excluded participants with co-occurring substance use, clinical crisis, history of family/partner violence
- Did not target or exclude participants with other co-occurring problems or disorders (2 RCTs for schizophrenia required complex cases for inclusion)
- Did not report on Veteran status (3 exceptions)

Applicability to Veterans and complicated patients largely unknown

Limitations

Studies published since 1996

- Few studies addressing KQ1 (efficacy)

Studies conducted in the US

- Additional work exists outside the US, but applicability of these trials to US Veterans unknown

Only RCTs

- Numerous family interventions in various stages of development and evaluation

Only patient outcomes of interest

- Caregiver interventions and family perspectives are also important for further review

Future Research

- RCTs with Veterans and understudied conditions
- Family interventions may be more effective with distressed couples
- RCTs addressing multiple problems/conditions with non-white, female, and older populations
- Preferences for individual versus family-oriented treatments
- Methods of motivating family and veterans for family care
- Alternative family and couple constellations

Evidence-based Synthesis Program (ESP)

Questions?

If you have further questions,
feel free to contact:

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The full report and cyberseminar presentation is available on the ESP website:

http://www.hsrd.research.va.gov/publications/esp/