

## **APPENDIX A. SEARCH STRATEGIES**

Database: Ovid MEDLINE(R)

Search Strategy:

- 
- 1 exp family/
  - 2 couples.mp.
  - 3 exp home nursing/
  - 4 (grandparent: or grandmother: or grandfather:).mp.
  - 5 exp legal guardians/
  - 6 or/1-5
  - 7 couples therapy/ or family therapy/ or marital therapy/
  - 8 6 or 7
  - 9 exp Infertility/ or exp Infertility, Male/ or exp Infertility, Female/ or exp Fertilization in Vitro/ or exp Reproductive Techniques, Assisted/ or exp Insemination, Artificial/
  - 10 8 not 9
  - 11 limit 10 to (english language and yr="1980 -Current")
  - 12 limit 11 to ("newborn infant (birth to 1 month)" or "infant (1 to 23 months)" or "preschool child (2 to 5 years)" or "child (6 to 12 years)")
  - 13 11 not 12
  - 14 limit 13 to meta analysis
  - 15 (systematic adj review:).mp.
  - 16 13 and 15
  - 17 14 or 16
  - 18 limit 13 to randomized controlled trial

Database: PsycINFO

Search Strategy:

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- 1 exp family/ or exp family members/ or exp spouses/ or exp couples/
  - 2 exp caregivers/ or exp stepparents/ or exp siblings/ or caretaker:.mp.
  - 3 exp grandparents/ or legal guardian:.mp.
  - 4 or/1-3
  - 5 couples therapy/ or family therapy/ or marital therapy/
  - 6 4 or 5
  - 7 exp Infertility/ or exp Reproductive Technology/
  - 8 6 not 7
  - 9 limit 8 to (english language and yr="1980 -Current")
  - 10 limit 9 to 100 childhood <birth to age 12 yrs>
  - 11 9 not 10
  - 12 meta analysis/ or (systematic adj review:).mp.
  - 13 11 and 12
  - 14 (randomized or rct).mp.
  - 15 11 and 14

## **APPENDIX B. CRITERIA USED IN QUALITY ASSESSMENT<sup>62</sup>**

Risk of bias	Internal validity: study design and the quality of individual studies included in the review. Study design limitations may bias the estimates of treatment effect (such as lack of allocation concealment, or lack of blinding). Other areas for potential bias include stopping early for benefit and selective outcome reporting.
Consistency	The effect sizes from the included studies are similar and have the same direction of effect (positive or negative).
Directness	Interventions are directly related to health outcomes. For CERs, head-to-head comparisons are made. Indirectness is suspected if surrogate or intermediate outcomes are used instead of health outcomes. For CERs, indirectness is also suspected if more than one body of evidence is needed to link interventions, as in the case with placebo controlled trials. Directness also includes applicability and relevance of the included studies to the VA population or to specific subpopulations within the VA. Applicability may also include settings (e.g., primary care vs. specialty care) and physician experience.
Precision	The degree of certainty surrounding an estimate of effect for each outcome of interest. Uncertainty of effect does not allow for a clinically useful conclusion, and is unable to rule out an important benefit or harm.
Risk of publication bias	Publication bias can result in an overestimate of effect. Publication bias is suspected if evidence is derived from a small number of commercially funded trials with small sample sizes and a small number of events.

## APPENDIX C. PEER REVIEW COMMENTS/AUTHOR RESPONSES

REVIEWER COMMENT	RESPONSE
<b>1. Are the objectives, scope, and methods for this review clearly described?</b>	
Yes. On page 9 Introduction PL 110-387 signed in Oct 2008 added Marriage and Family Counseling and dropped the contingency on non-service connected Veterans. The May 2010 PL just added primary caregivers to eligible individuals	We have revised this part of the introduction to clarify that PL 110-387 expanded coverage and that PL 111 added primary caregivers to eligible folks.
Yes	
No. There is a good measure of ambiguity about the goals and scope of this review. This ambiguity is generated from the following factors: 1) The background of the review highlights the legislation that expands the services to family members (the 2010 Caregiver legislation, but also applies to 2008 legislation that provides for marriage counseling as a VA service). I believe it was fair to say that the primary impetus for this legislation was the national pressure on VA to provide expanded services to family members, in reference to greater mental health needs of family members, and the impact that both medical and mental health issues of Veterans have on families. The focus of the review, however, is on the treatment of individual disorders, and not on outcomes of family members as individuals or the marital/family unit. This may create a disconnect in the reader's mind about the rationale for the review. The rationale for the change in services, however, does include that family members constitute important members of the treatment team. This is a key part to the rationale that a review is needed to examine the evidence that family member involvement does improve outcomes. A more nuanced and spelled out rationale would help set the reader's expectations a bit better. 2) The definitions of different types treatments defined by Baucom et al. were described as part of the background, but no systematic differentiations regarding these classifications of how family members are involved in treatment were made in this review (only brief occasional mentions). Thus, the review is not really a proper follow-up to Baucom et al. One consequence of this is that the review did not place marital distress or family dysfunction as clinical syndromes, unlike Baucom et al., where the authors treated those outcomes as treatable entities in and of themselves. This would be expected given the background/introduction of the review. Although the Limitations section discuss this point, it should be highlighted in the beginning of the review 3) There was very little emphasis was made on relationship distress as a moderator in the review, with only a mention in the sections on couples therapy interventions for ED and also for depression. This is potentially highly relevant in that findings in the pre-1995 period of time prior was that couples therapy for depression may not be effective, and perhaps ill-advised in couples who do not consider themselves maritally distressed, only with a partner with depression. This finding may be relevant for other disorders, and although few studies have addressed the issue in their designs, it should be part of the dialogue from the beginning of the review and part of the discussion and recommendations for future research. 4) Behavioral Couples Therapy (BCT) versions as treatments for substance abuse and alcohol use disorders were referenced often in the review with no qualifier that these are variants of BCT specifically designed to treat these disorders, except in the more detailed descriptions of the Appendices (which may not get read by many readers). They include procedures never used in standard BCT or expanded Integrative Behavioral Couples Therapy (IBCT) designed to treat marital distress. IBCT being disseminated throughout VA currently would very likely not be effective for substance abuse or alcohol use disorders. This ambiguity could be very misleading to readers unfamiliar with the literature.	1) We have clarified in the introduction the rationale for the review.  2) We have clarified the scope of the review in the introduction and highlighted the review is not intended as a strict update to Baucom and colleagues' review.  3) We agree this is an important issue. We have highlighted throughout the results section when this information is available and included a discussion of findings relevant to this question in the discussion.  4) Thank you for your suggestion. We have clarified this in the results section for substance use disorders and refer to BCT as a 'disorder specific couple/family treatment' in additional places for clarity.
Yes. All methods are clearly described. Methodology is rigorous and effectively implemented. Outcomes of interest were well selected and decisions to include and exclude studies seem sensible given the intent to extrapolate findings to U.S. Veteran populations.	Thank you.
Yes. Objectives, scope and methods are clearly articulated and findings are clearly summarized in multiple formats. Tables which include main findings are particularly facilitative (e.g., Table 8).	Thank you.

REVIEWER COMMENT	RESPONSE
Yes	
Yes	
<b>2. Is there any indication of bias in our synthesis of the evidence?</b>	
No	
No	
No	
No. There is no indication of bias.	
No	
Although I understand ESP's rationale, I believe that given the undeveloped nature of this literature, limiting the review only to RCTs may have been overly limiting to understand the relevant clinical issues, trends, or promising practices.	We certainly agree with the need to disseminate information on those promising interventions underdevelopment that are currently or soon to be subjected to more rigorous RCTs to evaluate their efficacy. Given the size of this review as it currently stands, limited to RCTs, it was beyond the scope of the project to expand our search to other study designs (e.g., open trials; quasi-experiments). We have added this to the limitation section.
<b>3. Are there any published or unpublished studies that we may have overlooked?</b>	
Please refer to reviews by Shirley Glynn and Lisa Dixon	These reviews have both been integrated into the discussion section specific to findings for schizophrenia.
No	
No	
No. I am not aware of studies that have been overlooked.	
No. Review appears extensive and literature search process is clearly displayed in Figure 2.	Thank you.
I was surprised to see that none of Candice Monson's work on couples therapy for PTSD was included. I don't have the studies in front of me, so it may be that is because they were not RCTs. If so, see my comment above.	You are correct. Dr. Monson's currently published work did not meet our inclusion criteria (i.e., currently she has no published RCTs). We referenced this work in our limitations.
<b>4. Please write any additional suggestions or comments below. If applicable, please indicate the page and line numbers from the draft report.</b>	
Page 5 and 62 Recommendation for Future Research – PL lists eligible individuals for family services and that does not include close friends or intimate partner unless they are residing with the Veteran. Page 5 and 62 Family Services and Caregiver Services are administered from two different Program Offices and are conceptualized as different – perhaps introducing caregivers brings in a different topic?	We have revised the introduction to better describe the two laws that have expanded services. In this explanation we also describe that PL 111-163 is only for a select group of family members. We have also highlighted the issue of who is eligible for these services in the discussion.
Overall, the review was comprehensive and inclusive, providing a critical snapshot of the state of the evidence for family-involved psychosocial treatments for mental health conditions of relevance to Veterans.	Thank you.

REVIEWER COMMENT	RESPONSE
<p>There was very little integration of the findings of this review with the findings from Baucom et al. (1998). Combining the findings from this review with the previous is important since many interventions showing strong evidence of effectiveness (e.g., Family Psychoeducation for schizophrenia spectrum disorders), have not been as extensively examined in the period from 1995 forward. As stated above, this review did not continue with the classification of types of family involvement, which significantly weakens our understanding of the actual interventions being examined.</p> <p>There was only a brief final mention in the recommendations of comorbidity as a factor examined in very few of the studies. This issue should be mentioned earlier and in greater detail since comorbidity is the norm for Veterans and indeed many older adults, Veterans or not. This recommendation should be front and center.</p> <p>The term “slower rate of relapse” was used consistently in the section on family involved treatments of substance and alcohol abuse. I believe the authors mean “lower rate of relapse” since most or all of the findings are rates at various endpoints and do not describe a slope or growth curve of relapse across time.</p> <p>On page 10, the authors state “Most prior reviews have focused on specific conditions (i.e., depression or substance use disorders), limiting the ability of past work to generalize to family-involved mental health care more broadly.” It is unclear what “more broadly” means: Comorbidity? Special populations? Non-symptom outcomes?</p> <p>On page 33, the authors state “For studies of AUD, all trials report better outcomes for BCT or BMT than IBT post-treatment and all follow-up time points, but many of these differences were not statistically significant.” The authors should allow that only the statistically significant findings are actually reportable as “better outcomes.”</p> <p>On page 34, the authors discussion the controversy over Fals-Stewart’s findings very economically and fairly. They need to provide a citation for the public charges of fabrication and of his death, a reputable news source, for example (a Google search will yield one fairly quickly).</p> <p>Page 39, last line “(Reference)” appears in the text when it likely [should list the author/year citation].</p> <p>On page 58, the authors refer to Table XX, when the next table is 15.</p> <p>“Baucom (1998)” many times was cited when the correct citation is Baucom et al. (1998).</p>	<p>We have taken better care to highlight the specific interventions that are reviewed and which category of intervention they fall under throughout the document (results and discussion section).</p> <p>We have included a more explicit review of the types of co-occurring problems that were inclusion and exclusion criteria in the trials reviewed. We have also expanded the discussion of this issue in our future research section.</p> <p>Following the review of this draft, we conducted pooled analyses of the BCT studies which allowed us to draw more definitive conclusions about the efficacy of BCT compared to individual treatment. See results section.</p> <p>We have clarified this in the Introduction</p> <p>We have removed discussion of non-significant differences between conditions.</p> <p>We have included a citation of both the NY State Attorney General’s press release and a copy of the felony complaint filed by the AG’s office.</p> <p>Corrected.</p> <p>Corrected.</p> <p>Corrected.</p>
<p>The evidence base bearing on the questions of interest was, unfortunately, very limited. The studies reviewed covered a wide range of interventions but the number of trials for the same interventions was very few. This means that although there were a number of promising findings from single trials, but evidence in these cases was of low quality, given lack of replication. One finding with moderate strength of evidence, that behavioral couples therapy can slow the rate of relapse for substance abuse disorders, appears to overstate the impact of the intervention, given that findings related to more important outcomes such as abstinence rates were mixed. In the Conclusions section starting on page 60, it is stated that Behavioral Couples Therapy is superior to individual therapy for substance abuse disorders, but this conclusion does not seem warranted given the mixed findings across studies. Behavioral Family Therapy did seem to have a consistently positive effect on family functioning outcomes across all four studies that reported outcomes in this domain; possibly, this finding should be emphasized more in the report. Given the lack of the research base, it may be worth expanding the Future Research section; potentially this report can prompt more methodologically strong research on family interventions within VA research organizations.</p>	<p>Regarding the strength of evidence of BCT, since the initial peer review, we have conducted pooled analyses comparing BCT to individual treatment in improving rates of abstinence and improving family adjustment. These findings are more supportive of BCT than our previous narrative review of the number of studies finding significant versus non-significant differences.</p>

REVIEWER COMMENT	RESPONSE
<p>1. A paragraph (pg. 34) is included regarding work by Fals-Stewart – it may be helpful to provide this background information prior to presenting data regarding studies (Fals-Stewart – 1996, 2002, 2003 etc...)</p> <p>2. Table 15 – may be useful to add borders (gridlines) to facilitate ease of reading.</p> <p>3. Cost related outcomes did not appear to be a focus of studies presented. Wonder about this as an outcome for future studies (particularly within VA), and whether it would be useful to include discussion regarding this in the Recommendations for Future Research.</p> <p>4. Several small typos noted (e.g., page 34 line 2 – Fals-Stewart, 1996, 200, 2002...) – also Higgins 2009 reference appears to be missing from list (this reviewer was interested in this publication so it was looked for all references were not checked).</p>	<p>Thank you for the suggestion. This has been done.</p> <p>Done.</p> <p>Thank you for your suggestion. We have addressed this in Future Research.</p> <p>Thank you for your attention to detail. We have attended closely to these issues in the final report draft.</p>
<p>The exclusive focus on RCT's and patient outcomes is a limitation. Not clear why previous reviews such as meta-analyses were not considered. Numerous sophisticated quantitative reviews have been published.</p> <p>It is not clear to me what “drug treatment” or “no treatment” means in the comparison condition for KQ1. Does that mean the absence of any alternative active treatment? The reason for asking is that drug treatment would typically come with some kind of support, and that might be mentioned.</p> <p>I am not sure what this means: “Overall, the studies reviewed appeared to favor comparisons between a family-intervention and an active treatment, limiting our conclusions for this key question. (page 3).” Does that mean that the review didn't consider many of the landmark studies? The review's findings regarding schizophrenia are puzzling given the extensive number of studies and meta-analyses supporting the effectiveness of family psychoeducation.</p> <p>One issue for consideration is the “lumping” vs “splitting” issue. This review splits studies by diagnosis. However, in practice family interventions are not narrowly offered, and they share techniques. Miklowitz's FFT is similar to FPE for schizophrenia; an alternative way to understand the literature is across diagnoses.</p>	<p>Our literature search identified systematic reviews and meta-analyses in additions to RCTs. Several recent reviews are mentioned in the report. We also looked at reference lists of recent reviews to identify primary studies our literature search might have missed. We have taken care to be more explicit in integrating these reviews into our results discussion for each set of mental health conditions reviewed.</p> <p>We were interested in reviewing the evidence of the efficacy of family involved interventions (compared to no intervention or non-psychosocial interventions), as well as the degree to which family involved interventions are superior to an alternative individually-focused or family involved intervention (i.e., specificity). The ‘medication only’ conditions involve interventions that were solely pharmacological including medication and monitoring of medication use, but where the medication condition was not intended as a psychosocial treatment or psychotherapy. This has been clarified in the introduction and the wording of the Key Questions, We have also clarified what additional provider contact was included in intervention conditions we considered ‘medication only’</p> <p>This is due to the scope of our review. We did not include non-US studies or studies published prior to 1996. However, we highlighted the work prior to our review that established the efficacy of these treatments in Table 1 and discussed our findings within the context of other reviews throughout the document in the executive summary, results, and discussion sections</p> <p>We have addressed this in the limitations section.</p>
<p>The name of the office is Office of Mental Health Services, not just Office of Mental Health</p> <p>I appreciated that in the summary of areas for future research in two areas in the paper, the role of nontraditional family constellations was highlighted. In the substance use disorder section, I appreciated that the results were broken into different types of effectiveness re: initiation, attendance, and adherence. On pg 34, although it is a touchy subject, I think it is a good thing that the issues around the work of Drs. Fals-Stewart are addressed.</p>	<p>This has been corrected. Thank you.</p> <p>Thank you for your positive feedback.</p>

REVIEWER COMMENT	RESPONSE
<b>5. Are there any clinical performance measures, programs, quality improvement measures, patient care services, or conferences that will be directly affected by this report? If so, please provide detail.</b>	Thank you – we will share these suggestions with the people responsible for dissemination of the report.
Findings should be of direct relevance to the mission of the VA's Family Services Program	
Every major VA medical center will be affected by this report in that the effectiveness of family involved services, especially in reducing relapse for substance abuse and alcohol disorders	
The report appears to indicate that evidence for most couples and family-based interventions is largely insufficient to warrant widespread implementation within VHA. The intervention that does appear to be supported by consistent evidence, CRAFT, is not very well suited to implementation within VHA because it is delivered by a mental health professional to a family member whose loved one is not seeking treatment. It may have important training implications for community-based providers and possibly staff members of Vet Centers. The other finding with moderate strength of evidence, that behavioral couples therapy can slow the rate of relapse for substance abuse disorders, is not very impressive given the lack of impact of this intervention on arguably more important outcomes such as abstinence rates.	Regarding the strength of evidence of BCT, since the initial peer review, we have conducted pooled analyses comparing BCT to individual treatment in improving rates of abstinence and improving family adjustment. These findings are more supportive of BCT than our previous narrative review of the number of studies finding significant versus non-significant differences.
Would expect that findings would have implications in terms of future VA research funding. May also have implications for current evidence-based treatment rollouts.	
The Office of Mental Health Operations should review to determine if there is any relevance of the information in this report to their Mental Health Information System, which monitors a variety of practices in the field.	
<b>6. Please provide any recommendations on how this report can be revised to more directly address or assist implementation needs.</b>	
I am still struggling with the bottom line – probably effective – won't cause harm? How does the research supporting family interventions compare to the research supporting other interventions currently being used in the VA?	To adequately address how family interventions compare to the population of interventions currently provided by the VA, a systematic review of individually-oriented interventions would be required. This is beyond the scope of the review.  However, we have taken care to better highlight the primary take home points in the executive summary and in our final discussion section. We have included additional pooled analyses of the BCT studies comparing BCT to individual therapy, which provide greater clarity to our conclusions regarding the comparative effectiveness of BCT to individual therapy.
A potential conclusion from the findings of the report is that the state-of-the-science is that more efficacy and effectiveness research is needed on Veteran-focused family-involved psychosocial treatments to inform dissemination and implementation.	We agree and have highlighted these issues in the discussion section.
The review's scope would have to be expanded significantly to discuss effective implementation strategies, but this would indeed be highly valuable for VA.	We agree that identifying and evaluating effective implementation strategies would be valuable; however, it is outside the scope of this report.
As mentioned above, comorbidity is the rule, rather than the exception, and very few studies address comorbidity. Clinicians have very little guidance as to how to proceed in these circumstances. A brief (and very common) clinical scenario that illustrates the problem: A 34 yo Veteran with PTSD, depression, and TBI violently pushes his wife after weeks of arguments over money, his at-risk alcohol use, and discipline of their children. He recently entered VA care and is open to treatment. Possible interventions include individual alcohol treatment, BCT for alcohol abuse, IBCT, anger management, and cognitive rehabilitation. The couple is asking for couples counseling for their arguing because they realize it upsets their 4 yo son. The Veteran is unconvinced he has a drinking problem.	See above.



REVIEWER COMMENT	RESPONSE
It may be helpful if the authors would recommend research priorities related to the area. Several interventions are promising, but research is very limited and trials with Veterans are lacking. A set of recommendations about which interventions might be prioritized for investigation within VHA research mechanisms might be helpful.	We have included a more expansive future research section and address these issues there.
I think the report could benefit from greater consideration of how family interventions might be used in clinical care and the gap between the research parameters and what is found clinically.	We have included a more direct discussion of the need for studies examining patients with multiple problems (e.g., substance use, TBI, intimate partner violence) in the Future Research section.
See my comments in response to question #3 and #4. I am afraid that the super rigorous limitation of the review to just RCTs may cut off possibilities for identifying promising practices for pilot projects in the field.	See above.



## APPENDIX D. EVIDENCE TABLES

Table 1. Study Descriptive Information – Substance Abuse Studies

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Carroll, 2001 <sup>77</sup> Government	<p>N = 127 randomized N = 127 data analysis</p> <p><u>Gender:</u> 76% male <u>Age:</u> 32.4 years <u>Race/ethnicity:</u> African American 14.4% Hispanic 7% White 77% <u>Marital Status:</u> Single/divorced 65% <u>Education:</u> ≥High school 81%</p> <p>Veterans: NR</p> <p><u>Recruitment Method</u> Completed outpatient detoxification for opioids and seeking tx for opioid dependence</p> <p><u>Family Characteristics:</u> None reported</p>	<p><u>MH Condition:</u> Substance use <u>Assessed by:</u> DSM clinical interview</p> <p><u>SO:</u> non-abusing parent, spouse, child, sibling or close friend <u>Inclusion:</u> Seeking tx for opioid dependence <u>Exclusions:</u> Significant medical condition that would contraindicate Naltrexone; did not have significant other; met DSM criteria for schizophrenia or bipolar or was in substance use treatment within past 3 months</p>	<p>1) SO relationship counseling added to standard tx (Naltrexone) with voucher-based contingency management (CM) N=48</p> <p>2) Standard tx (Naltrexone) with voucher-based contingency management N=35</p> <p>3) Standard tx (receive Naltrexone) only n=44</p> <p><u>Treatment adherence</u> 5 did not initiate treatment 10 removed from tx protocol (not clear from which groups they dropped)</p>	<p><u>Format:</u> Standard tx or contingency management or contingency management plus 6 sessions of reciprocal relationship counseling <u>Manualized:</u> Yes <u>Session:</u> 6 sessions <u>Approach:</u> All participants in all three groups were randomized to receive Naltrexone in addition to cognitive behavioral group therapy. One group was offered reciprocal relationship counseling in addition to group therapy and vouchers redeemable for goods and services contingent on taking Naltrexone and drug-free urine screens (contingency management). A second group received group therapy, Naltrexone and contingency management. The third group received group therapy and Naltrexone only.</p>	<p><u>Patient Outcomes</u> Symptom Improvement a. Drug free urine b. Opiate free urine c. Cocaine free urine d. % of drug free urine e. PDA opioids f. PDA cocaine g. Maximum PDA</p> <p><u>Family Outcomes:</u> Psychosocial functioning (including family functioning): a. ASI</p> <p><u>Intermediate Outcomes:</u> Attendance: a. weeks in treatment Adherence: a. # Naltrexone doses</p>	<p><u>Allocation concealment:</u> unclear</p> <p><u>Blinding:</u> treating clinicians and outcome assessors</p> <p><u>Intention to treat analysis:</u> yes</p> <p><u>Withdrawals adequately described:</u> yes</p> <p><u>Treatment integrity:</u> Naltrexone adherence monitored by urine screens. No report of tx integrity for CM or SO sessions.</p> <p><u>Study Quality:</u> <b>Good</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Fals-Stewart, 1996 <sup>66</sup>  Government	N = 80 randomized N = 80 data analysis  <u>Gender:</u> 100% male (husbands) <u>Age:</u> 34.1 years <u>Race/ethnicity:</u> White 67% Black American 10% Hispanic 3% <u>Marital Status:</u> Married 100% <u>Education (mean years/SD):</u> 11.9(2.4)  Veterans: NR  <u>Recruitment Method</u> Men entering outpatient substance use tx in community based clinics were asked to participate  <u>Family Characteristics:</u> Spouse/partner <u>Gender:</u> 100% female <u>Age (mean):</u> 33.0 <u>Race/ethnicity:</u> White 69% Black 8% Hispanic 3% <u>Education (mean yrs/SD):</u> 11.7 (2.3)	<u>MH Condition:</u> Substance use <u>Assessed by:</u> Diagnostic interview <u>SO:</u> wives <u>Inclusions:</u> Husband: between 20 and 60; married at least 1 year or in stable relationship for 2; met abuse or dependence criteria for at least one psychoactive substance use, primary drug not alcohol; medical clearance for tx; refrain from using; refrain from additional treatment except self help meetings; <u>Exclusions:</u> wife met DSM criteria for substance use; husband or wife had delusional disorder; husband or wife in methadone program and looking for adjunctive outpatient support	1) Behavioral couple therapy (BCT) N=40 2) Individual treatment - behavioral therapy for husbands N=40	1) <u>Format:</u> Couple <u>Manualized:</u> Yes <u>Sessions:</u> 56 <u>BCT Approach:</u> Treatment included IBT through group (once weekly) and individual counseling (once weekly) plus BCT through one conjoint (once weekly)  2) <u>Format:</u> Individual <u>Manualized:</u> Yes <u>Sessions:</u> 56 <u>Approach:</u> Cognitive-Behavioral Treatment included group (once weekly) and individual counseling (twice weekly)	<u>Patient Outcomes</u> Symptom Improvement a. Urine screens b. PDA (alcohol and drugs) c. Blood alcohol  <u>Intermediate Outcomes:</u> Attendance: a. Sessions attended Satisfaction with care a. CSQ-8  <u>Family Outcomes:</u> Couple functioning: a. MAT b. ACQ c. % of days separated Conflict: a. Response to conflict	<u>Allocation</u> <u>concealment:</u> no  <u>Blinding:</u> no  <u>Intention to treat</u> <u>analysis:</u> no  <u>Withdrawals</u> <u>adequately</u> <u>described:</u> yes  <u>Treatment</u> <u>integrity:</u> PI supervised 1 hr week and reviewed progress notes  <b><u>Study Quality:</u></b> <b>Poor</b>
Fals-Stewart, 2000 <sup>84</sup>	Same as Fals-Stewart 1996	Same as Fals-Stewart 1996	Same as Fals-Stewart 1996	Same as Fals-Stewart 1996	<u>Patient Outcomes</u> Symptom Improvement a. PDA  <u>Family Outcomes:</u> Couple functioning: a. Locke Wallace Marital adjustment test (MAT)	Same as Fals-Stewart 1996

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Fals-Stewart, 2002 <sup>85</sup>	Same as Fals-Stewart 1996	Same as Fals-Stewart 1996	Same as Fals-Stewart 1996	Same as Fals-Stewart 1996	<p><u>Patient Outcomes</u> Symptom Improvement a. % of days of alcohol or drug use</p> <p><u>Family Outcomes:</u> Couple functioning: a. MAT Intimate Partner Violence: a. CTS – male to female</p>	Same as Fals-Stewart 1996
Fals-Stewart, 2001 <sup>67</sup>  Government	<p>N = 43 randomized N = 36 data analysis</p> <p><u>Gender:</u> 100% male <u>Age:</u> 38.1 (7.5) years <u>Race/ethnicity:</u> White 50 % Black 42% Hispanic 8% <u>Marital Status:</u> Married or cohabitating 100% Education (mean years): 12.0 (2.0)</p> <p>Veterans: NR</p> <p><u>Recruitment Method</u> Subjects recruited from patients entering substance abuse treatment at one of two community based methadone maintenance clinics.</p> <p><u>Family Characteristics:</u> 100% female wives or significant others <u>Age:</u> 36.0 (7.3) years <u>Race/ethnicity:</u> White 56 % Black 39% Hispanic 5% <u>Education (mean years):</u> 12.2 (2.3)</p>	<p><u>MH Condition:</u> Abuse or dependence for a psychoactive substance use disorder (intravenous opiate users) <u>Assessed by:</u> DSM-III-R interview <u>SO:</u> <u>Inclusion:</u> male; age 21-60 years; married ≥1 year or living with significant other ≥2 years; medical clearance to engage in methadone maintenance treatment; refrain from seeking other substance abuse treatment except for self help meetings during duration of treatment (unless recommended by primary therapist) <u>Exclusions:</u> if female partner met DSM-III-R criteria for psycho-active substance use disorder in last six months; either partner met DSM-III-R criteria for organic mental, paranoid, or other psychotic disorder or schizophrenia; either partner had plans for imminent departure from geographic region</p>	<p>1) BCT treatment package N= 21</p> <p>2) IBMM services (Individual based methadone maintenance), standard treatment N=22</p> <p><u>Treatment adherence</u> 1) 19/21 (90%) remained in treatment through analysis 2) 17/22 (77%) remained in treatment through analysis</p>	<p>1) <u>Format:</u> BCT <u>Manualized:</u> Yes <u>Sessions:</u> 2 sessions weekly for 12 weeks <u>Approach:</u> In addition to an individual weekly session (similar to IBMM below), partners met conjointly with a therapist once weekly for 60 minute sessions. Verbal agreement made to have a daily “sobriety trust discussion.” Weekly homework reinforcing session content.</p> <p>2) <u>Format:</u> IBMM <u>Manualized:</u> Yes <u>Sessions:</u> 2 sessions weekly for 12 weeks <u>Approach:</u> Subject met with therapist alone, twice weekly; adapted from cognitive behavioral treatment programs for alcoholism; emphasis on coping skills training. Standard methadone dose of 60 mg/day, increased at patient’s request or when opiate positive urine sample.</p>	<p><u>Patient Outcomes</u> Symptom Improvement a. ASI - alcohol and drug composite b. Urine samples</p> <p><u>Family Outcomes:</u> Couple functioning: a. DAS b. ASI (family-social composite)</p> <p><u>Intermediate Outcomes:</u> Satisfaction a. CSQ Attendance a. # sessions attended</p>	<p><u>Allocation concealment:</u> NR</p> <p><u>Blinding:</u> NR</p> <p><u>Intention to treat analysis:</u> no</p> <p><u>Withdrawals adequately described:</u> yes</p> <p><u>Treatment integrity:</u> Manualized; counselors supervised weekly for consistent treatment techniques; randomly audiotaped sessions</p> <p><b><u>Study Quality:</u></b> Fair</p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Fals-Stewart, 2003 <sup>68</sup>  Government Foundation	N = 124 randomized N = 124 data analysis  <u>Gender:</u> 100% male <u>Age:</u> 32.35 years <u>Race/ethnicity:</u> White 40.5 % Black 15.5% Hispanic 2.5% Other 3.5% <u>Marital Status:</u> Married 49% <u>Education (mean years/SD):</u> 13.2  Veterans: NR  <u>Recruitment Method</u> Opioid dependent men seeking outpatient treatment in community based clinics were asked to participate.  <u>Family Characteristics:</u> Family member <u>Gender:</u> NR <u>Age:</u> NR <u>Race/ethnicity:</u> NR Spouse 49% Parent 36.5% Sibling 15%	<u>MH Condition:</u> substance use <u>Assessed by:</u> Structured clinical interview <u>SO:</u> family member <u>Inclusions:</u> Men with opioid dependence; living with someone not abusing drugs/alcohol and without diagnosis of serious mental illness; able to forgo any other substance use counseling except for self- help groups  <u>Exclusion:</u> Physical condition that could interfere with tx; allergic to Naltrexone; dependent on other psychoactive drug other than opioid that requires inpatient hospitalization for detoxification; suicidal or homicidal; in methadone tx within 30 days of tx.	1) Naltrexone + Behavioral Family Therapy (BFT) N=62 2) Naltrexone + individual based therapy (IBT) N=62	1) <u>Format:</u> Behavioral Family Therapy <u>Manualized:</u> Yes <u>Session:</u> 56 sessions for IBT; 16 additional BFT <u>Approach:</u> <u>BFT Approach:</u> Treatment included IBT through group (once weekly) and individual counseling (once weekly) plus BFT through one conjoint session (once weekly)  2) <u>Format:</u> Individual <u>Manualized:</u> Yes <u>Sessions:</u> 56 <u>Approach:</u> Treatment individual cognitive behavior therapy through group (once weekly) and individual counseling (twice weekly)	<u>Patient Outcomes</u> Symptom Improvement a. Abstinence – opioid free urine screens b. Abstinence – drug free urine screens c. PDA opioids d. PDA cocaine e. PDA alcohol f. PDA drugs g. Length of continuous abstinence  <u>Family Outcomes:</u> Family functioning a. ASI sub-scale <u>Intermediate Outcomes:</u> Attendance: a. Sessions attended Adherence: a. # days took Naltrexone Satisfaction with care a. CSQ	<u>Allocation concealment:</u> NR  <u>Blinding:</u> NR  <u>Intention to treat analysis:</u> yes  <u>Withdrawals adequately described:</u> yes  <u>Treatment integrity:</u> Recorded sessions; counselors assessed for adherence (NS); counselors assessed for competence (NS)  <u>Study Quality:</u> Fair

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Fals-Stewart, 2005 <sup>69</sup>  Government	<p>N = 100 randomized N = 100 data analysis</p> <p><u>Gender:</u> 100% male <u>Age:</u> 34.8 years <u>Race/ethnicity:</u> White 58% Black 24% Hispanic 13% Other 7% <u>Marital or cohabitating:</u> 100% <u>Education (mean years/SD):</u> 13.4</p> <p>Veterans: NR</p> <p><u>Recruitment Method</u> Alcohol dependent married men entering outpatient treatment were asked to participate.</p> <p><u>Family Characteristics:</u> Spouse/partner <u>Gender:</u> 100% female <u>Age:</u> NR <u>Race/ethnicity:</u> NR Spouse 49% Parent 36% Sibling 15%</p>	<p><u>MH Condition:</u> substance use <u>Assessed by:</u> NR <u>SO:</u> wife/intimate partner <u>Inclusions:</u> Men, 20-60 yrs old; married ≥1 yr or cohabitating ≥2 yrs.; meet DSM criterion for alcohol dependence; medical clearance; agreed to abstain from drugs/alcohol; restrain from other tx programs; <u>Exclusions:</u> Any psychoactive drug dependence within last 6 months, any serious mental illness for participant and/or SO.</p>	<p>1) Brief Relationship Therapy N=25 2) Standard Behavioral Couples Therapy N=25 3) Individual based therapy (IBT) N=25 4) Psychoeduca- tional attention control treatment (PACT) N=25</p>	<p><u>1) Format:</u> Brief Relationship Therapy <u>Manualized:</u> Yes <u>Session:</u> 18 <u>Approach:</u> Group session weekly and an additional session with partner every other week; focus on couple communication, problems solving and reinforcing sobriety</p> <p><u>2) Format:</u> Standard Behavioral Couples Therapy <u>Manualized:</u> Yes <u>Session:</u> 24 <u>Approach:</u> One 12-step group and 1 conjoint (with spouse) session weekly. Conjoint session focused on focused on couple communication, problems solving and reinforcing sobriety.</p> <p><u>3) Format:</u> IBT <u>Manualized:</u> Yes <u>Session:</u> 18 <u>Approach:</u> One group session/week and 1 individual counseling every other week</p> <p><u>4) Format:</u> PACT <u>Manualized:</u> Yes <u>Session:</u> 18 <u>Approach:</u> One group session weekly and 6 additional sessions with partner every other week. Partner was a passive participant, listening to lectures on substance use.</p>	<p><u>Patient Outcomes</u> Symptom Improvement a. PDHD</p> <p><u>Family Outcomes:</u> Couple functioning: a. DAS</p> <p><u>Intermediate Outcomes:</u> Attendance: a. Sessions attended Satisfaction with care a. CSQ</p>	<p><u>Allocation</u> <u>concealment:</u> NR</p> <p><u>Blinding:</u> NR</p> <p><u>Intention to treat</u> <u>analysis:</u> unclear</p> <p><u>Withdrawals</u> <u>adequately</u> <u>described:</u> yes</p> <p><u>Treatment</u> <u>integrity:</u> All sessions were audiotaped; 20% of sessions rated for competence and adherence; manualized; no significant differences across groups</p> <p><b><u>Study Quality:</u></b> <b>Fair</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Fals-Stewart, 2006 <sup>74</sup>  Government	<p>N = 138 randomized N = 138 data analysis</p> <p><u>Gender:</u> 100% female <u>Age:</u> 33.4 years <u>Race/ethnicity:</u> White 59 % Black 30.3% Hispanic 6.7% Other 2.3% <u>Marital or cohabitating:</u> 100% <u>Education (mean years/SD):</u> 12.8</p> <p>Veterans: NR</p> <p><u>Recruitment Method</u> Alcohol dependent married/cohabitating women entering outpatient treatment for alcohol dependence were asked to participate.</p> <p><u>Family Characteristics:</u> Spouse/partner <u>Gender:</u> 100% male <u>Age:</u> 35.8 years <u>Education (years):</u> 12.9 <u>Race/ethnicity:</u> White 56% Black 30.3% Hispanic 8.3% Other 4.3%</p>	<p><u>MH Condition:</u> alcohol use <u>Assessed by:</u> Structured clinical interview <u>SO:</u> husband/intimate male partner</p> <p><u>Inclusions:</u> Women, 20-60 yrs old; married ≥1 yr or cohabitating ≥2 yrs.; meet DSM criterion for alcohol dependence; have alcohol as primary drug of abuse; agreed to abstain from drugs/alcohol; restrain from other tx programs <u>Exclusions:</u> Male partner met DSM criteria for any psychoactive drug dependence, any serious mental illness for participant and/or SO</p>	<p>1) Standard Behavioral Couples Therapy (S-BCT) N=46 2) Individual based therapy (IBT) N=46 3) Psychoeduca- tional attention control tx (PACT) N=46</p>	<p>1) <u>Format:</u> S-BCT <u>Manualized:</u> Yes <u>Session:</u> 32 <u>Approach:</u> 20 individual sessions and 12 conjoint (with spouse) sessions. Conjoint session focused on couple communication, problems solving and reinforcing sobriety.</p> <p>2) <u>Format:</u> IBT <u>Manualized:</u> Yes <u>Session:</u> 32 <u>Approach:</u> 32 individual sessions</p> <p>3) <u>Format:</u> PACT <u>Manualized:</u> Yes <u>Session:</u> 32 <u>Approach:</u> 20 individual sessions and 12 conjoint (with spouse) sessions. Conjoint sessions were designed so partner was a passive participant, listening to lectures about alcoholism and sobriety.</p>	<p><u>Patient Outcomes</u> Symptom Improvement a. PDA</p> <p><u>Family Outcomes:</u> Couple functioning: a. DAS Partner violence a. TLFB-Spousal Violence</p> <p><u>Intermediate Outcomes:</u> Attendance: a. Sessions attended Satisfaction with care b. CSQ</p>	<p><u>Allocation concealment:</u> yes  <u>Blinding:</u> NR  <u>Intention to treat analysis:</u> unclear  <u>Withdrawals adequately described:</u> yes  <u>Treatment integrity:</u> Sessions audiotaped, reviewed and rated.  <b><u>Study Quality:</u> Good</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Fals-Stewart, 2008 <sup>78</sup>  Funding source not reported	<p>N =184 randomized N =184 data analysis</p> <p><u>Gender:</u> 73% male, 27% female <u>Age:</u> 34.4 years <u>Race/ethnicity:</u> White 58 % Black 24% Hispanic 13% Other 7% <u>Marital or cohabitating:</u> 100% <u>Education (mean years/SD):</u> 13.4</p> <p>Veterans: NR</p> <p><u>Recruitment Method</u> Drug dependent married/ cohabitating men and women entering outpatient treatment were asked to participate.</p> <p><u>Family Characteristics:</u> Spouse/partner <u>Gender:</u> 27% male, 73% female <u>Age:</u> 28.8 years <u>Education (years):</u> 14.4 <u>Race/ethnicity:</u> White 51% Black 17.3% Hispanic 3.3% Other 5.5%</p>	<p><u>MH Condition:</u> substance use <u>Assessed by:</u> NR <u>SO:</u> spouse/intimate partner <u>Inclusions:</u> Men or women, 20-60 yrs old; married <math>\geq 1</math> yr or cohabitating <math>\geq 2</math> yrs.; meet DSM criterion for psychoactive substance use disorder and be dependent on a drug other than alcohol or nicotine; medical clearance; agreed to abstain from drugs/alcohol; restrain from other tx programs; <u>Exclusions:</u> Partners met DSM criteria for any psychoactive drug dependence within last 6 months, any serious mental illness for participant and/or SO.</p>	<p>1) Brief BCT N=46 2) Standard BCT N=46 3) Individual based therapy (IBT) N=46 4) Psychoeducational attention control treatment (PACT) N=46</p>	<p>1) <u>Format:</u> B-BCT <u>Manualized:</u> Yes <u>Session:</u> 18 <u>Approach:</u> 12 group sessions and 6 conjoint sessions with partner, where partner is an active participant. Conjoint sessions focused on couple communication, problems solving and reinforcing sobriety.</p> <p>2) <u>Format:</u> BCT <u>Manualized:</u> Yes <u>Session:</u> 24 <u>Approach:</u> 12 group sessions and 12 conjoint sessions with partner, where partner is an active participant. Conjoint sessions focused on couple communication, problems solving and reinforcing sobriety.</p> <p>3) <u>Format:</u> IBT <u>Manualized:</u> Yes <u>Session:</u> 18 <u>Approach:</u> 12 group sessions and 6 individual counseling sessions</p> <p>4) <u>Format:</u> PACT <u>Manualized:</u> Yes <u>Session:</u> 18 <u>Approach:</u> 12 group sessions and 6 conjoint sessions with partner, but partner is a passive participant. Conjoint sessions were lecture based sessions about alcoholism</p>	<p><u>Patient Outcomes</u> Symptom Improvement a. PDA</p> <p><u>Family Outcomes:</u> Couple functioning: a. DAS</p> <p><u>Intermediate Outcomes:</u> Attendance: a. Sessions attended Satisfaction with care a. CSQ</p>	<p><u>Allocation concealment:</u> NR</p> <p><u>Blinding:</u> NR</p> <p><u>Intention to treat analysis:</u> unclear</p> <p><u>Withdrawals adequately described:</u> yes</p> <p><u>Treatment integrity:</u> Recorded; 20% assessed for adherence and competence</p> <p><b><u>Study Quality:</u> Fair</b></p>



Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Fals-Stewart, 2009 <sup>79</sup>  Government	<p>TWO GROUPS:</p> <p>1) GAY MALES: N = 52 randomized N = 52 data analysis Gender: 100% male Age: 31.3 years Race/ethnicity: White: 77% Black: 8% Hispanic: 2% Other: 2% Marital Status: NR Education(years): 15.0</p> <p>Veterans: NR</p> <p><u>Family Characteristics:</u> Partners Gender: 100% male</p> <p>2) LESBIANS: N =48 randomized N =48 data analysis Gender : 100% female Age: 27.7 years Race/ethnicity: White: 77% Black: 10% Hispanic: 6% Other: 6% Marital Status: NR Education (years): 13.3</p> <p>Veterans: NR</p> <p><u>Family Characteristics:</u> Partners Gender: 100% female</p> <p><u>Recruitment Method</u> Gays or lesbians entering tx for alcohol use disorder at community health center were approached and asked to participate.</p>	<p><u>MH Condition:</u> current alcohol abuse or dependence <u>Assessed by:</u> Structured interview with DSM-IV criteria <u>SO:</u> gay or lesbian partner</p> <p><u>Inclusions:</u> gay or lesbian sexuality, alcohol as primary drug of abuse, living with SO in stable relationship ≥1 year; ≥18 yrs old; agreed to refrain from alcohol/drugs during treatment; not in any other SA treatment. <u>Exclusions:</u> if partner met DSM-IV criteria for any current substance use disorder (except nicotine), or if either pt or partner had schizophrenia or psychotic disorder</p>	<p>1) Behavioral Couples Therapy N = NR</p> <p>2) Individual based treatment N=NR</p>	<p>1) <u>Format:</u> Behavioral Couples Therapy treatment <u>Manualized:</u> Yes <u>Sessions:</u> 32 x 60 minutes <u>Txt Length:</u> 20 weeks <u>Approach:</u> Same program as IBT for 20 sessions (individual therapy); remaining 12 conducted with partner (substance and relationship focused interventions)</p> <p>2) <u>Format:</u> Individual treatment <u>Manualized:</u> modified from Individual Drug Counseling Manual <u>Sessions:</u> 32 x 60 minutes <u>Txt Length:</u> 20 weeks <u>Approach:</u> Individual therapy, using 12 step facilitation; participants encouraged total abstinence</p>	<p><u>Patient Outcomes</u> Symptoms: a. PDHD</p> <p><u>Family Outcomes</u> Couple functioning: a. DAS</p> <p><u>Intermediate Outcomes</u> Attendance: a. # sessions attended Treatment Satisfaction a. CSQ</p>	<p><u>Allocation</u> <u>Concealment:</u> NR</p> <p><u>Blinding:</u> NR</p> <p><u>Intention-to-treat</u> <u>analysis:</u> yes</p> <p><u>Withdrawals</u> <u>adequately</u> <u>described:</u> no</p> <p><u>Treatment Integrity</u> Limitation; 80% of participants refused to be video-taped.</p> <p><b><u>Study Quality:</u></b> <b>Poor</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Jones, 2011 <sup>70</sup>  Government	<p>N = 62 randomized N = 62 data analysis</p> <p><u>Gender:</u> 100% male <u>Age:</u> 33.3 (6.7) years <u>Race/ethnicity:</u> White 51% Non-white: 49% <u>Marital Status:</u> Married: 17% Unmarried: 86% <u>Education (mean years):</u> 11.7 (1.1)</p> <p>Veterans: NR</p> <p><u>Recruitment Method</u> Subjects recruited from Center for Addiction and Pregnancy clinic.</p> <p><u>Family Characteristics:</u> <u>Gender:</u> 100% female</p>	<p><u>MH Condition:</u> Opioid use <u>Assessed by:</u> Self report <u>SO:</u> Pregnant partner <u>Inclusion:</u> Eligibility initially based on eligibility of a pregnant partner. Pregnant woman needed to be age ≥18, ≤30 weeks pregnant, meet DSM-IV criteria for current opioid dependence.</p> <p>With referral from pregnant woman, her male partner then became subject. His eligibility requirements: male; age ≥18 years; see the pregnant woman ≥thrice weekly; no evidence of physical violence toward woman, self reported opioid use of ≥4 days/week each week in the past month. <u>Exclusions:</u> either pregnant woman or partner if diagnosed with a medical or psychiatric condition that contraindicated study participation or signing informed consent.</p>	<p><u>Drug abusers</u> 1) HOPE: Helping Other Partners Excel N=45</p> <p>2) Usual care N= 17</p>	<p>1) <u>Format:</u> HOPE (couples based) <u>Manualized:</u> Yes <u>Sessions:</u> 22 weeks; 6 individual male partner sessions, then 12 manualized couples education. <u>Approach:</u> Four components – motivational enhancement therapy for male partners, case management and proactive counseling, 12 weeks couple's group therapy and education sessions, contingency management to initiate and sustain drug abstinence.</p> <p>2) <u>Format:</u> Usual care <u>Manualized:</u> NR <u>Sessions:</u> 22 weeks; 1 60 minute weekly session <u>Approach:</u> Weekly support group for male partner only; drug education and other topics. Couples' counseling available upon request.</p> <p>Free methadone maintenance for 6 months; or inpatient detoxification followed by 6 months of outpatient care provided to male partners in both groups (subject choice)</p>	<p><u>Patient Outcomes</u> Symptom Improvement a. ASI b. Days use, past 30 days (heroin) c. % with heroin use Global Functioning: a. Depression (BDI)</p> <p><u>Family Outcomes:</u> Couple functioning: a. Partner Support Questionnaire (based on Norbeck Social Support Questionnaire) b. Relationship Assessment form</p>	<p><u>Allocation</u> <u>concealment:</u> NR</p> <p><u>Blinding:</u> NR</p> <p><u>Intention to treat</u> <u>analysis:</u> yes</p> <p><u>Withdrawals</u> <u>adequately</u> <u>described:</u> yes</p> <p><u>Treatment</u> <u>integrity:</u> Weekly supervision, training of counselors, feedback on audiotaped sessions.</p> <p><b><u>Study Quality:</u></b> <b>Fair</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Kelley, 2002 <sup>63</sup>  Government	<p>N = 135 randomized N = 127 data analysis</p> <p><u>All subjects (both alcohol and drug abusers):</u> <u>Gender:</u> 100% male <u>Age:</u> 32.35 years <u>Race/ethnicity:</u> White 63 % Black 32% Hispanic 5% <u>Marital Status:</u> Married or cohabitating 100% <u>Education (mean years):</u> 12.2</p> <p>Veterans: NR</p> <p><u>Recruitment Method</u> Subjects recruited from clinics specializing in treatment of alcohol or drug abuse.</p> <p><u>Family Characteristics:</u> 100% female wives or significant others <u>Age:</u> 36.6 <u>Race/ethnicity:</u> White 67 % Black 25% Hispanic 8% <u>Education (mean years):</u> 12.1</p>	<p><u>MH Condition:</u> Abuse or dependence for a psychoactive substance use disorder <u>Assessed by:</u> DSM-III-R criteria <u>SO:</u> wives or female SO <u>Inclusion:</u> male; age 20-60 years; married ≥1 year or living with significant other ≥2 years; medical clearance to engage in abstinence oriented treatment; agree to refrain from alcohol or illicit drugs during treatment, refrain from seeking other substance abuse treatment except for self help meetings; have at least one child age 6-16 living in household for whom one or both adults were legal guardians. <u>Exclusions:</u> if female partner met DSM-III-R criteria for psycho-active substance use disorder in last six months; either partner in methadone maintenance program; either partner met DSM-III-R criteria for organic mental, paranoid, or other psychotic disorder or schizophrenia.</p>	<p><u>Alcohol abusers</u> 1) BCT N=25</p> <p>2) IBT only N= 22</p> <p>3) Psychoeducational attention control treatment (PACT) N= 24</p> <p><u>Drug abusers</u> 1) BCT N=22</p> <p>2) IBT only N= 22</p> <p>3) PACT N= 21</p>	<p>1) <u>Format:</u> BCT <u>Manualized:</u> Yes <u>Sessions:</u> 32 <u>Approach:</u> Both partners attend 12 treatment sessions, used to help male partners remain abstinent, teach effective communication, increase positive exchanges, eliminate aggression. In remaining 20 sessions, subjects participated in individual CBT.</p> <p>2) <u>Format:</u> IBT <u>Manualized:</u> Yes <u>Sessions:</u> 32 <u>Approach:</u> After a baseline assessment, the partner no longer participated in treatment. Subject alone attended 20 IBT sessions (same as BCT group), followed by 12 coping skills based sessions.</p> <p>3) <u>Format:</u> PACT <u>Manualized:</u> Yes <u>Sessions:</u> 32 <u>Approach:</u> Subject alone attended 20 IBT sessions (same as BCT and groups), followed by 12 educational lectures that both partners attended (not couples therapy).</p>	<p><u>Patient Outcomes</u> Symptom Improvement a. PDA</p> <p><u>Family Outcomes:</u> Couple functioning: a. DAS</p> <p><u>Intermediate Outcomes:</u> a. Session attendance</p>	<p><u>Allocation concealment:</u> NR</p> <p><u>Blinding:</u> NR</p> <p><u>Intention to treat analysis:</u> yes; missing data imputation described</p> <p><u>Withdrawals adequately described:</u> yes</p> <p><u>Treatment integrity:</u> Manualized</p> <p><b><u>Study Quality:</u></b> <b>Fair</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Kirby, 1999 <sup>80</sup>  Government	<p>N = 36 randomized N = 30 for data analysis (due to drop outs following randomization)</p> <p><u>Gender:</u> 6% male <u>Age:</u> 39.6 years <u>Race/ethnicity:</u> White 75% Black 21.9% Hispanic NR Other 3.1% <u>Marital Status:</u> NR <u>Education:</u> NR</p> <p>Veterans: NR</p> <p><u>Family Characteristics:</u> Spouse/partner: 56.3% Parent 37.5% Sibling 6.3%</p> <p><u>Recruitment Method</u> Recruited from newspaper ads.</p>	<p><u>Participants:</u> Family or significant other of drug abuser (FSO) <u>MH Condition:</u> FSO report of family member drug abuse</p> <p><u>Assessed by:</u> Condition was assessed by FSO self-report <u>SO:</u> drug user not involved in intervention <u>Inclusions:</u> FSOs were over 18, had contact with drug user &gt;3 times/week, concern about illicit drug user, drug user not in tx, FSO not in tx.</p>	<p>1) Individual counseling and psychoeducation (community reinforcement training intervention or CRT)</p> <p>2) Self help (Narcotics Anonymous)</p>	<p>1) <u>Format:</u> CRT <u>Manualized:</u> No <u>Session:</u> 14X60 minutes <u>Txt Length:</u> 10 weeks <u>Approach:</u> Individual counseling sessions, that includes motivation to change, communication, coping strategies, and developing social support</p> <p>2) <u>Format:</u> Self-help group <u>Manualized:</u> Yes <u>Session:</u> 10X75 minutes <u>Txt Length:</u> 10 weeks <u>Approach:</u> Group counseling sessions that included discussion of 12 steps, self-esteem, views about addiction, responsibility and detachment.</p>	<p><u>Patient Outcomes</u> Symptoms: a. FSO ratings of patient drug use during after treatment Health Care Utilization: a. % of patient entry into treatment during FSO treatment</p> <p><u>Family Outcomes:</u> Family functioning: a. SAS family unit subscale</p> <p>Couple functioning: a. SAS marital subscale</p> <p><u>Intermediate Outcomes</u> Attendance: a. FSO attendance, b. Treatment completion</p>	<p><u>Allocation concealment:</u> Unclear</p> <p><u>Blinding:</u> Unclear</p> <p><u>Intention to treat analysis:</u> No</p> <p><u>Withdrawals adequately described:</u> Drop outs after randomization discussed; no explanation of what was done with missing data</p> <p><u>Treatment Integrity</u> Supervised counseling</p> <p><b><u>Study Quality:</u> Poor</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Lam, 2009 <sup>71</sup>  Government	<p>N = 30 randomized N = 30 data analysis</p> <p><u>Gender:</u> 100% male <u>Age:</u> 34.1 years <u>Marital Status:</u> Married or cohabitating: 100% <u>Race/ethnicity:</u> White 63% Black 23% Hispanic 7% Other 7% <u>Education (years):</u> 12.9</p> <p>Veterans: NR</p> <p><u>Family Characteristics:</u> Wives/partners (children not actively involved in treatment) <u>Gender:</u> 100% <u>Age:</u> 33.0 years <u>Education (years):</u> 13.6 <u>Race/ethnicity:</u> White 66.6 Black 13.3 Hispanic 6.6 Other 13.3</p> <p><u>Recruitment Method</u> Heterosexual married men entering tx for alcohol dependence with a child were asked to participate within 1 week of admission to tx.</p>	<p><u>MH Condition:</u> alcohol use disorder per DSM-IV criteria</p> <p><u>Assessed by:</u> structured clinical interview (for both pt and SO)</p> <p><u>SO:</u> female partners (wife or SO)</p> <p><u>Inclusions:</u> Male, ≥18, married ≥1 year or cohabitating ≥2 years; female partner did NOT mean DSM-IV criteria for substance abuse or dependence, had legal guardianship of at least one child between ages 8-12 living in the home.</p> <p><u>Exclusions:</u> N/A</p>	<p>1) PSBCT (Parent Skills with Behavioral Couples Therapy) N = 10</p> <p>2) Behavioral Couples Therapy (BCT) N= 10</p> <p>3) Individual based treatment (IBT) N=10</p>	<p>1) <u>Format:</u> PSBCT. <u>Manualized:</u> Yes <u>Sessions:</u> 24 <u>Txt Length:</u> 12 weeks (2/wk x 60 minutes) <u>Approach:</u> 12 individual sessions plus 6 core BCT plus 6 parent skills training sessions. Partner attended the BCT and parent sessions with participant.</p> <p>2) <u>Format:</u> BCT <u>Manualized:</u> Yes <u>Sessions:</u> 24 <u>Txt Length:</u> 12 weeks (2/wk x 60 minutes) <u>Approach:</u> 12 individual sessions plus 12 manualized BCT sessions. Partner attended the BCT with participant; BCT included communication and problem solving skill building.</p> <p>3) <u>Format:</u> IBT <u>Manualized:</u> yes <u>Sessions:</u> 24 <u>Txt Length:</u> 12 weeks (2/wk x 60 minutes) <u>Approach:</u> 12 individual plus 12 individual based coping sessions using Cognitive Behavioral Therapy (CBT)</p> <p>All three treatment groups received 12 weekly standard CBT sessions; the second weekly session content differed by treatment group.</p>	<p><u>Patient Outcomes</u> Symptoms: a. PDA</p> <p><u>Family Outcomes</u> Couple functioning a. DAS Inter-personal Violence: a. TLFB –Spousal Violence</p> <p><u>Intermediate Outcomes</u> Attendance: a. % of sessions attended</p>	<p><u>Allocation</u> <u>Concealment:</u> NR</p> <p><u>Blinding:</u> NR</p> <p><u>Intention-to-treat</u> <u>analysis:</u> Yes</p> <p><u>Withdrawals</u> <u>adequately</u> <u>described:</u> No; not defined by treatment group</p> <p><u>Treatment</u> <u>integrity:</u> Videotaped training sessions for each therapist reviewed for guideline adherence and competency.</p> <p><b><u>Study Quality:</u></b> <b>Fair</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
McCrary, 1996 <sup>72</sup>  Government	<p>N = 90 randomized N = 88 data analysis</p> <p><u>Gender</u>: 100% male <u>Age</u>: 39.4 (10.3) years <u>Race/ethnicity</u>: NR <u>Marital Status</u>: NR <u>Education (years)</u>: 13.4 (2.3)</p> <p>Veterans: NR</p> <p><u>Family Characteristics</u>: Spouse/partners <u>Gender</u>: 100% female <u>Age</u>: 37.4 (10.3) years <u>Education (years)</u>: 13.7 (2.0)</p> <p><u>Recruitment Method</u> Male alcoholics and female partners recruited through outpatient treatment program, community referrals and advertisements for low-fee couple therapy for alcoholism.</p>	<p><u>MH Condition</u>: alcohol dependence <u>Assessed by</u>: Structured clinical screening interview</p> <p><u>SQ</u>: female partners</p> <p><u>Inclusions</u>: Men who were married or in cohabitating relationship &gt;6 months, met criteria for alcohol dependence or abuse; not dependent on other drug; not psychotics; without signs of severe organic brain syndrome; partners did not have alcohol problems, drug dependence or psychosis.</p>	<p>1) Alcohol focused spouse involvement plus behavioral marital therapy (ABMT) N=30</p> <p>2) Alcohol focused spouse involvement plus behavioral marital therapy (ABMT) PLUS AA/AI Anon N=31</p> <p>3) Alcohol focused spouse involvement plus behavioral marital therapy plus relapse prevention N=29</p>	<p>1) <u>Format</u>: ABMT <u>Manualized</u>: Yes <u>Sessions</u>: 15 <u>Txt Length</u>: 15 weeks (1/wk x 90 minutes). <u>Approach</u>: BMT that included behavioral self-recording, stimulus and consequence control procedures; communication and problem solving skill Partner attended the BCT with participant.</p> <p>2) <u>Format</u>: ABMT/AA <u>Manualized</u>: Yes <u>Sessions</u>: 15 <u>Txt Length</u>: 15 weeks (1/wk x 90 minutes) <u>Approach</u>: BMT that included communication and problem solving skill, encouragement to go to AA/AI-Anon, homework and used common language to AA.</p> <p>3) <u>Format</u>: ABMT/AA/RP <u>Manualized</u>: Yes <u>Sessions</u>: 19 minimum <u>Txt Length</u>: 15 weeks (1/wk x 90 minutes) <u>Approach</u>: BMT that included communication and problem solving skill, encouragement to go to AA/AI Anon, homework and used common language to AA plus 4 maintenance sessions over 12 months to reduce relapse.</p>	<p><u>Patient Outcomes</u> Symptoms: a. Mean % drinking days b. Mean # drinks per drinking day</p> <p><u>Intermediate Outcomes</u> Attendance a. Session attendance b. Homework completed</p>	<p><u>Allocation concealment</u>: NR</p> <p><u>Blinding</u>: NR</p> <p><u>Intention to treat analysis</u>: No</p> <p><u>Withdrawals adequately described</u>: Yes</p> <p><u>Treatment integrity</u>: Manualized; audiotaped treatment adherence assessed rigorously</p> <p><b><u>Study Quality</u>: Fair</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
McCrary, 1999 <sup>86</sup>  Government	Same as McCrary 1996 <sup>72</sup>	Same as McCrary 1996 <sup>72</sup>	Same as McCrary 1996 <sup>72</sup>	Same as McCrary 1996 <sup>72</sup>	<u>Patient Outcomes</u> Symptoms: a. PDA b. PDHD c. Mean length of drinking episodes d. % continuous abstinent e. % non-problem drinking f. % drinking, but improved g. % unimproved  <u>Intermediate Outcomes</u> Attendance a. Mean # sessions attended b. Mean #days in treatment	Same as McCrary 1996 <sup>72</sup>
McCrary, 2004 <sup>87</sup>  Government	Same as McCrary 1996 <sup>72</sup>	Same as McCrary 1996 <sup>72</sup>	Same as McCrary 1996 <sup>72</sup>	Same as McCrary 1996 <sup>72</sup>	<u>Patient Outcomes</u> Symptoms: a. PDA  <u>Family Outcomes</u> Couple functioning a. MHS	Same as McCrary 1996 <sup>72</sup>



Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
McCrary, 2009 <sup>75</sup>  Government	<p>N = 109 randomized N = 102 analyzed</p> <p><u>Gender:</u> 100% female <u>Age:</u> 45.1 years <u>Race/ethnicity:</u> White: 95% Not white: 5% Hispanic: NR <u>Marital Status:</u> Married: 89% Not married: 11% <u>Education (years):</u> 14.91</p> <p>Veterans: NR</p> <p><u>Family Characteristics:</u> Husbands: 89% Male Significant Others(SO): 11% Children: 0</p> <p><u>Recruitment Method</u> Women recruited through advertisements in the community and referrals from local alcohol tx programs.</p>	<p><u>MH condition:</u> current alcohol abuse or dependence <u>Assessed by:</u> Structured clinical Interview for DSM-IV <u>SO:</u> male partner _</p> <p><u>Inclusions:</u> Female, married, cohabitating for &gt;6 months, or committed relationship for &gt;1 year (with intent to continue).</p> <p><u>Exclusions:</u> Neither party &lt;25 on MMSE , signs of psychotic disorder, current drug or physiological dependence, no evidence of domestic abuse in past 12 months OR if aggression reported on Modified CTS, a) victim does not fear retribution &amp; b) violence occurred only when intoxicated or resulted in no injuries.</p>	<p>1) Alcohol Behavior Couples Therapy (N =50)</p> <p>2) Alcohol Behavior Individual Therapy (N=52)</p>	<p>1) <u>Format:</u> Couples <u>Manualized:</u> Yes <u>Sessions:</u> 20 x 90 minutes <u>Txt Length:</u> Maximum 6 months <u>Approach:</u> CBT, same as individual plus intervention for partner to support abstinence and improve couple relationship.</p> <p>2) <u>Format:</u> Individual <u>Manualized:</u> Yes <u>Sessions:</u> 20 x 60 minutes <u>Txt Length:</u> Maximum 6 months <u>Approach:</u> CBT including self monitoring, functional analysis of drinking, coping skills.</p>	<p><u>Patient Outcomes</u> Symptoms: a. PDA b. PDHD c. % complete abstinence after treatment d. % no heavy drinking days Health Care Utilization: a. % pts receiving additional formal treatment. b. # day's treatment.</p> <p><u>Family Outcomes</u> Couple functioning: a. % separated during treatment. b. Days length of separation</p> <p><u>Intermediate Outcomes</u> Attendance: a. % Attended all sessions. b. # sessions Treatment adherence a. % Homework completed (patient) -</p>	<p><u>Allocation</u> <u>Concealment:</u> Yes</p> <p><u>Blinding:</u> none</p> <p><u>Intention-to-treat analysis:</u> No</p> <p><u>Withdrawals</u> <u>adequately</u> <u>described:</u> Yes</p> <p><u>Treatment integrity:</u> Therapists met weekly to review cases, audiotapes reviewed randomly; MATCH Treatment rating scale used (no significant differences).</p> <p><b><u>Study Quality:</u></b> <b>Good</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Meyers, 2002 <sup>83</sup>  Funding NR	N = 90 randomized N = 90 in data analysis  <u>Gender</u> : NR <u>Age</u> : NR <u>Marital Status</u> : NR <u>Relationship length</u> : over 20 years <u>Race/ethnicity</u> : NR <u>Education</u> : NR  Veterans: NR  <u>Family Characteristics</u> : Female intimate partner: 30% Parents: 53% Close friend/other family member: 17% Had children: NR  <u>Recruitment Method</u> SOs were recruited through newspaper ads offering help with tx-refusing, drug abusing loved one.	<u>MH Condition</u> : psychoactive substance use disorder other than alcohol <u>Assessed by</u> SCI for DSM–IV <u>SO</u> : a first-degree relative, spouse, intimate partner, or someone who lives with the IP; who has contact with the patient on at least 40% of the last 90 days.  <u>Inclusions</u> : ≥ age 18; live within 60 miles of the project; describe the loved one in a manner consistent with the DSM–IV diagnoses for a psychoactive substance use disorder other than alcohol; consent to participate. <u>Exclusions</u> : SOs of an individual with a substance use disorder who would be interested in entering treatment.	1) Community Reinforcement and Family Training (CRAFT) N = 29  2) CRAFT + aftercare N = 30  3) Al-Anon or Narcotics Anonymous facilitation therapy N = 31  *Skills taught in CRAFT: domestic violence precautions, motivational strategies, assessment of the context of the patient's use, communication training, positive- reinforcement training, discouragement of drug use, training CSOs to reward themselves, and suggesting treatment to the patient	1) <u>Format</u> : CRAFT in individual sessions with the SO <u>Manualized</u> : Yes <u>Sessions</u> : 1 2-14 <u>Txt Length</u> : NR <u>Approach</u> : SO taught skills* for impacting drinker's alcohol use and decision to enter treatment and improving their own quality of life  2) <u>Format</u> : CRAFT conducted in individual sessions with the SO <u>Manualized</u> : Yes <u>Sessions</u> : 12-14 + aftercare group therapy for up to 6 months <u>Txt Length</u> : NR <u>Approach</u> : See above + open- ended groups for after care for up to 6 months; aftercare used same CRAFT principles  3) <u>Format</u> : Al-Anon or Narcotics Anonymous facilitation therapy <u>Manualized</u> : Yes <u>Sessions</u> : 1 2 <u>Txt Length</u> : NR <u>Approach</u> : parallels 12-step program and adds emphasis on getting patient to enter formal treatment	<u>Patient Outcomes</u> Health Care Utilization a. % of patients who came to treatment after their significant others were recruited for the study	<u>Allocation</u> <u>Concealment</u> : NR  <u>Blinding</u> : NR  <u>Intention-to-treat</u> <u>analysis</u> : NR  <u>Withdrawals</u> <u>adequately</u> <u>described</u> : No  <u>Treatment</u> <u>integrity</u> : Weekly supervision; sample of sessions were videotaped and reviewed.  <u>Study Quality</u> : <b>Fair</b>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Miller, 1999 <sup>81</sup>  Government	<p>N = 130 SOs randomized N = 130 data analysis</p> <p><u>Gender</u>: 91% female <u>Age</u>: 47 years <u>Marital Status</u>: NR <u>Relationship length</u>: 22 years (range 1 to 57 years) <u>Race/ethnicity</u>: White/non-Hispanic: 53% Hispanic: 39% Native American: 6% Other: 1% <u>Education (years)</u>: 14</p> <p>Veterans: NR</p> <p><u>Family Characteristics</u>: Spouse: 59% Parent: 30% Boy/Girlfriend: 8% Adult Child: 1.5% Grandparent: 1.5% Had children: NR</p> <p><u>Recruitment Method</u> SOs seeking advice or help with the drinking behaviors of someone with whom they lived. Referrals primarily came from announcements in local news media.</p>	<p><u>MH Condition</u>: alcohol use disorder <u>Assessed by</u>: SO report using the Structured Clinical Interview for the DSM-III-R <u>SO</u>: close relative (parent, child, grandchild, sibling) or a spouse or unmarried intimate partner <u>Inclusions</u>: Concerned SO must be 1) living with a problem drinker who is a close relative or intimate partner, 2) within 60 miles of research site, 3) in contact with drinker on at least 40% of the past 90 days, with no planned change (e.g., separation) in the next 90 days, 4) age ≥18 (both SO and drinker), 5) willing to participate in research, 6) describes the drinker in a manner consistent with DSM-III diagnostic criteria for alcohol abuse or dependence, and 7) evidence that the drinker refused to seek treatment and had not received and treatment (other than detoxification) for alcohol or drug problems in the past 3 months</p>	<p>1) CRAFT N = 45 (44 completed)</p> <p>2) Johnson Institute intervention N = 40 (36 completed)</p> <p>3) Alcoholics-Anonymous N = 45 (42 completed)</p> <p>*Skills taught in CRAFT: awareness training (incorporating the style of motivational interviewing), contingency management, communication skills training, planned activities that compete with drinking, outside activities for SO self-care, handling dangerous situations, suggesting counseling, and functional analysis of triggers and reinforcers for nondrinking</p>	<p>1) <u>Format</u>: CRAFT in individual sessions with the SO <u>Manualized</u>: Yes <u>Sessions</u>: 12 1-hr sessions <u>Approach</u>: SO taught skills* for impacting drinker's alcohol use and decision to enter treatment and improving their own quality of life</p> <p>2) <u>Format</u>: Johnson Institute intervention <u>Manualized</u>: Yes <u>Sessions</u>: 6 2-hr sessions <u>Approach</u>: Special form of family intervention; family members are prepared to confront problem drinking with their own experiences and observations about drinking and related problems, encourage treatment entry in a supportive manner, and apply sanctions if the drinker fails to enter tx</p> <p>3) <u>Format</u>: Alcoholics-Anonymous <u>Manualized</u>: Yes <u>Sessions</u>: 812-hr sessions <u>Approach</u>: parallels 12-step program – philosophy that SO is powerless to control drinker, must detach, and instead accept AI-Anon and strengthen own mental health</p>	<p><u>Primary outcomes</u> <u>Utilization</u> a. Patient engagement in at least an initial assessment and one treatment session of substance use treatment</p> <p><u>Family Outcomes</u> Family functioning a. FES (Family cohesion) b. RHS Conflict a. FES (Family conflict)</p> <p><u>Intermediate Outcomes</u> Attendance: a. session attendance</p>	<p><u>Allocation</u> <u>Concealment</u>: NR</p> <p><u>Blinding</u>: NR</p> <p><u>Intention-to-treat analysis</u>: Yes</p> <p><u>Withdrawals</u> <u>adequately described</u>: Yes</p> <p><u>Treatment integrity</u>: Therapists thoroughly trained, certified in tx, and then supervised. All sessions videotaped and randomly selected tapes were monitored.</p> <p><b><u>Study Quality</u>: Good</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
O'Farrell, 1998a <sup>4</sup>  Government	<p>N = 59 randomized N = 59 data analysis</p> <p><u>Gender</u>: 100% male <u>Age</u>: 44.4 years <u>Marital Status</u>: Married 100% <u>Race/ethnicity</u>: White: NR <u>Education (years)</u>: 12.73</p> <p>Veterans: 100%</p> <p><u>Family Characteristics</u>: Spouses <u>Gender</u>: 100% female <u>Age</u>: 41.6 years <u>Race/ethnicity</u>: NR <u>Education (years)</u>: 13.0</p> <p><u>Recruitment Method</u> Participants recruited from VA inpatient detoxification units (for alcohol) and outpatients in alcohol rehabilitation program, and from newspaper and media announcements.</p>	<p><u>MH Condition</u>: Alcohol Abuse or Dependence</p> <p><u>Assessed by</u>: MAST</p> <p><u>SO</u>: Wife/female cohabitating partner</p> <p><u>Inclusions</u>: Legally married male alcoholics with non- alcoholic spouses or in stable common law marriage for at least 3 yrs; living together; ages 25-60 yrs.; husband met DSM criteria for alcohol dependence; had consumed alcohol sometime 120 prior &gt;7 on MAST; accepted abstinence as goal; refrained from other tx or counseling during trial. <u>Exclusions</u>: Wife abused alcohol or had been abstinent &lt; 6 months; wife or husband had psychoactive substance use disorder (other than alcohol); serious mental illness; separated and not willing to reconcile for trial.</p>	<p>1) Behavioral Marital Therapy (BMT) + Relapse Prevention (RP) N = 30</p> <p>2) Behavioral Marital Therapy N = 29</p>	<p>1) <u>Format</u>: BMT + RP <u>Manualized</u>: Yes <u>Sessions</u>: BMT NR + 15 Relapse Prevention sessions <u>Txt Length</u>: 5-6 months for BMT + 1 year <u>Approach</u>: Couple therapy delivered first with only the couple and provider then in groups of couples later in the treatment + couples therapy for relapse prevention with only the couple and the provider Behavioral marital therapy with Antabuse contracts to promote abstinence, behavioral assignments, and communication /negotiation training + relapse prevention to maintain behaviors and gains, deal with unresolved problems, to develop and rehearse a relapse prevention plan</p> <p>2) <u>Format</u>: BMT only <u>Manualized</u>: Yes <u>Sessions</u>: NR <u>Txt Length</u>: 5-6 months <u>Approach</u>: Couple therapy delivered first in with only the couple and provider then in groups of couples later in the treatment. Behavioral marital therapy with Antabuse contracts to promote abstinence, behavioral assignments, and communication/ negotiation training</p>	<p><u>Patient Outcomes</u> Symptoms a. PDA</p> <p><u>Family Outcomes</u> Couple functioning a. Marital Adjustment Test b. CBQ (marital behaviors scale)</p> <p><u>Intermediate Outcomes</u> Adherence: a. CBQ (participation in Antabuse contract scale)</p>	<p><u>Allocation</u> <u>Concealment</u>: No</p> <p><u>Blinding</u>: no <u>Intention-to-treat</u> <u>analysis</u>: No</p> <p><u>Withdrawals</u> <u>adequately</u> <u>described</u>: Yes</p> <p><u>Treatment</u> <u>integrity</u>: Extensive training, weekly supervision, co- author leading or observing 80% of sessions</p> <p><b><u>Study Quality</u>:</b> <b>Fair</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
O'Farrell, 1998b <sup>65</sup>  Government	N = 36 randomized N = 34 data analysis  <u>Gender</u> : 100% male <u>Age</u> : 42.4 years <u>Marital Status</u> : 100% <u>Yrs married (mean)</u> : 15.79 <u>Race/ethnicity</u> : White: NR <u>Education (years)</u> : 12.47  Veterans: 100% (n=34)  <u>Family Characteristics</u> : Wife/partner <u>Gender</u> : 100% female <u>Age</u> : 40.4 years <u>Education (years)</u> : 12.4  <u>Recruitment Method</u> Married male alcoholics in the first month of tx in the VA Alcoholism Outpatient Clinic were contacted to participate.	<u>MH Condition</u> Alcohol Use Disorder <u>Assessed by</u> : MAST <u>SO</u> : wife/female partner <u>Inclusions</u> : Legally married male alcoholics with non- alcoholic spouses; living together; no older than 60yrs.; score >7 on MAST. <u>Exclusions</u> : Patient refused to accept sobriety as goal; had psychotic or had organic memory deficits; wife had drinking problem, nervous disorder, or was psychotic.	1) Behavioral Marital Therapy N = 10  2) Interactional Couples Therapy N = 12  3) Individual treatment only N = 12	1) <u>Format</u> : Individual treatment for alcoholism + BMT <u>Manualized</u> : Yes <u>Sessions</u> : 10 <u>Txt Length</u> : 10 weeks/2hrs. <u>Approach</u> : Used behavioral rehearsal and homework to decrease drinking and alcohol related interactions; develop communication skills  2) Individual treatment for alcoholism + Interactional Couples therapy <u>Manualized</u> : No <u>Sessions</u> : 10 <u>Txt Length</u> : 10 weeks/2 hrs. <u>Approach</u> : less structured group; not manualized or pre-planned; emphasized mutual support, sharing of feelings, problem solving through discussion and providing verbal insight on the relationship  3) <u>Format</u> : Individual treatment for alcoholism only <u>Manualized</u> : NA <u>Sessions/Txt Length</u> : NA <u>Approach</u> : NA	<u>Family Outcomes</u> Couple functioning a. Sexual Adjustment Questionnaire – multiple subscales	<u>Allocation</u> <u>Concealment</u> NR  <u>Blinding</u> : Yes  <u>Intention-to-treat</u> <u>analysis</u> : No  <u>Withdrawals</u> <u>adequately</u> <u>described</u> : No  <u>Treatment</u> <u>integrity</u> : Audiotaped, supervised sessions. Ratings of tx integrity used.  <b><u>Study Quality</u>:</b> <b>Fair</b>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
O'Farrell, 2008 <sup>64</sup>  Government	<p>N = 46 randomized N = 45 data analysis (one died after randomization)</p> <p>Gender: 96 % male Age: 47.8 years Race/ethnicity: White: 93% Black: 7% Hispanic: 0% Marital Status: NR Education: &lt;HS or GED: 9% HS: 51% &gt;HS: 40%</p> <p>Veterans: NR</p> <p><u>Family Characteristics:</u> NR</p> <p><u>Recruitment Method</u> Patients admitted to a hospital-based inpatient substance abuse detoxification unit were recruited.</p>	<p><u>MH Condition:</u> Alcohol dependence (with or without comorbid drug diagnosis)</p> <p><u>Assessed by:</u> inpatient unit/ medical records</p> <p><u>SO:</u> wives, parents, or SO partner</p> <p><u>Inclusions:</u> admitted to a inpatient detoxification unit, ages 21- 65; living with wife, parent(s) or female partner prior to admit, live within 45 minutes driving distance of treatment center, no evidence of schizophrenia, organic mental disorder, paranoid disorder, other psychotic disorder</p> <p><u>Exclusions:</u> None</p>	<p>1) Brief Family Treatment Intervention N=24</p> <p>2) Treatment as usual (TAU) N=21</p> <p>3) Brief Family Treatment subset N=9</p>	<p>1) <u>Format:</u> Brief Family Treatment <u>Manualized:</u> Yes <u>Sessions:</u> 2 session <u>Txt Length:</u> NR <u>Approach:</u> First session was in person or in depth telephone conference with patient and family member to develop a strategy for continuing care and to review options; help make practical plans for continuing care. Second call was phone call 2 weeks after detoxification discharge to find out success and troubleshoot continuing care</p> <p>2) <u>Format:</u> TAU <u>Manualized:</u> No <u>Sessions:</u> NA <u>Txt Length:</u> 3-4 days inpatient detoxification <u>Approach:</u> Participants admitted for substance use detoxification; to assist with withdrawal symptoms; monitor risks for developing serious problems during withdrawal. Family not involved during detoxification unit stay (confirmed by medical record review).</p> <p>3) Subset of Brief Family treatment group that compared in-person session to phone delivered session</p>	<p><u>Patient Outcomes</u> Symptoms: a. % days substance use Utilization: a. % entered continuing care post inpatient detoxification b. Days attended continuing care</p>	<p><u>Allocation</u> <u>Concealment:</u> Yes - urn</p> <p><u>Blinding:</u> NR</p> <p><u>Intention-to-treat</u> <u>analysis:</u> Yes</p> <p><u>Withdrawals</u> <u>adequately</u> <u>described:</u> Yes</p> <p><u>Treatment</u> <u>integrity:</u> Counselors provided detailed steps for tx; cases reviewed weekly</p> <p><b><u>Study Quality:</u> Poor</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
O'Farrell, 2010 <sup>82</sup>  Government	<p>N = 29 randomized N = 28 data analysis</p> <p><u>Gender</u>: 55% male <u>Age</u>: 29.1 years <u>Marital Status</u>: Married/cohabitating: NR <u>Race/ethnicity</u>: White: 89.8% <u>Education(years)</u>: 12.9</p> <p>Veterans: NR</p> <p><u>Family Characteristics</u>: Parent: 93% Sibling: 75 <u>Age</u>: 55.3 years <u>Race/ethnicity</u>: White 89.5% <u>Education(years)</u>: 14.1</p> <p><u>Recruitment Method</u> Patients who were living with a family member other than a spouse and who entered an outpatient clinic for tx for substance use were recruited.</p>	<p><u>MH Condition</u>: Substance use <u>Assessed by</u>: unclear <u>SO</u>: non-spouse with whom patient lives.</p> <p><u>Inclusions</u>: (a) age 18- 65; living with adult family member other than a spouse or partner for at least 6 months in prior year; participant meets DSM criteria for alcohol or drug dependence or both; family member without current drug or alcohol dependence; patient and family member without serious mental illness, suicidal ideation or homicide risk; agreement to refrain from other substance use counseling except for self- help; agree to abstinence during study period. <u>Exclusions</u>: History in past 3 years of domestic violence when not using drugs/alcohol or if family voiced fear of violence due to tx; opioid use or maintenance in past 12 months; dependence on alcohol, heroin or other opioids that required detox; history of drug overdose or attempted suicide.</p>	<p>1) BFT+IBT (n=15) 2) IBT only (n=14)</p>	<p>1) <u>Format</u>: BFT+IBT <u>Manualized</u>: Yes <u>Sessions</u>: 24 (2/week, 60 min): 12 BFT, 12 IBT <u>Txt Length</u>: 12 weeks <u>Approach</u>: Patient and family members attended one session/ week which included "daily trust discussion." Tx emphasized daily support of abstinence, less on relationships enhancement to fit non-spousal relationship. IBT used Project MATCH manual</p> <p>2) <u>Format</u>: IBT <u>Manualized</u>: Yes <u>Sessions</u>: 24 (2/week, 60 min) <u>Txt Length</u>: 12 weeks (2/week) <u>Approach</u>: Participants attended therapy by themselves. Project MATCH manual used (repeating each session twice).</p>	<p><u>Patient Outcomes</u> Symptoms: a. PDA b. % days primary substance use</p> <p><u>Family Outcomes</u> a. RHS-dyad score</p> <p><u>Intermediate Outcomes</u> Attendance a. mean # sessions attended</p> <p>-</p>	<p><u>Allocation</u> <u>Concealment</u>: NR</p> <p><u>Blinding</u>: NR</p> <p><u>Intention-to-treat</u> <u>analysis</u>: Yes</p> <p><u>Withdrawals</u> <u>adequately</u> <u>described</u>: Yes</p> <p><u>Treatment</u> <u>integrity</u>: Weekly supervision; review of audiotaped sessions</p> <p><b><u>Study Quality</u>: Poor</b></p>



Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Walitzer, 2004 <sup>73</sup>  Government	<p>N = 64 randomized N = 64 data analysis</p> <p><u>Gender:</u> 100% male <u>Age:</u> 42.0 (11.3) years <u>Race/ethnicity:</u> Non-Hispanic White: 98% <u>Marital Status:</u> Married: 81% Unmarried, but cohabitating: 19% <u>Education (years):</u> NR</p> <p>Veterans: NR</p> <p><u>Recruitment Method</u> Newspaper advertisements for "Couples Drinking Reduction Program"</p> <p><u>Family Characteristics:</u> <u>Gender:</u> 100% female <u>Age:</u> 39.3 (9.6) years <u>Race/ethnicity:</u> Non-Hispanic White: 95%</p>	<p><u>MH Condition:</u> Alcohol abuse <u>Assessed by:</u> Medical evaluation <u>SO:</u> wife or cohabitating partner <u>Inclusion:</u> Male subject drank ≥10 drinks/week; both subject and spouse willing to accept subject's goal of reduced drinking. <u>Exclusions:</u> Subject psychiatric hospitalization in past 5 years, or multiple lifetime psych hospitalizations. For both subject and partner: 1) no alcohol related arrests in past year or no more than 2) lifetime alcohol related arrests; 2) concurrent alcohol treatment (other than self help group; 3) history of alcohol related hospitalization or detox; 4) serious domestic violence; 5) current separation; and 6) for unmarried couples, living together &lt;6 months.</p>	<p>1) C/AF – couples with alcohol focus N=21 2) C/AF + BCT – couples with alcohol focus + Behavior Couples Therapy N=21 3) PDO – problem drinker only N=22</p> <p><u>Treatment adherence</u> NR by group</p>	<p>1) <u>Format:</u> C/AF <u>Manualized:</u> Yes <u>Sessions:</u> 10 weeks x 2 hours weekly <u>Approach:</u> During first hour strategies to reduce alcohol consumption, strategies to increase spouse behaviors supportive of drinking reduction; last hour, alcohol and health lectures, with encouraged discussion between partners.</p> <p>2) <u>Format:</u> C/AF +BCT <u>Manualized:</u> Yes <u>Sessions:</u> 10 weeks x 2 hours weekly <u>Approach:</u> During first hour strategies to reduce alcohol consumption, strategies to increase spouse behaviors supportive of drinking reduction; last hour, BCT series of treatment components to equip couples with skills to increase cohesion and positive relationship aspects, enhance communication and conflict resolution.</p> <p>3) <u>Format:</u> PDO <u>Manualized:</u> Yes <u>Sessions:</u> 10 weeks x 2 hours weekly <u>Approach:</u> During first hour- strategies to reduce alcohol consumption, last hour-alcohol and health lectures</p>	<p><u>Patient Outcomes</u> Symptom Improvement a. TLFB – heavy days drinking/month b. TLFB – abstinent/light days drinking/month c. TLFB – time to heavy drinking episode</p> <p>Global Functioning a. Drinker Inventory of Consequences</p> <p><u>Family Outcomes:</u> Couple functioning: a. Partner Interaction Questionnaire b. Significant Other Behavior Questionnaire c. DAS</p>	<p><u>Allocation concealment:</u> NR</p> <p><u>Blinding:</u> NR</p> <p><u>Intention to treat analysis:</u> Yes</p> <p><u>Withdrawals adequately described:</u> Yes</p> <p><u>Treatment integrity:</u> Weekly supervision, training of counselors, sessions audiotaped and checked against a session checklist.</p> <p><b><u>Study Quality:</u> Fair</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Winters, 2002 <sup>76</sup>  Government	<p>N = 75 randomized N = 75 data analysis</p> <p><u>Gender</u>: 100% female <u>Age</u>: 32.9 years <u>Marital Status</u>: Married/cohabitating:100% <u>Race/ethnicity</u>: White: 70% Black: 24% Hispanic: 1% <u>Education (years)</u>: 12.3</p> <p>Veterans: NR</p> <p><u>Family Characteristics</u>: Male Intimate Partner: 100% <u>Age</u>: 35.2 years <u>Marital Status</u>: Married/cohabitating:100% <u>Race/ethnicity</u>: White 61% Black 31% Hispanic 8%</p> <p><u>Recruitment Method</u> Married and cohabitating women entering tx for substance use were asked to participate.</p>	<p><u>MH Condition</u>: Drug Abuse <u>Assessed by</u>: Diagnostic clinical interview <u>SO</u>: Male intimate partner <u>Inclusions</u>: age 20-60; married ≥ 1 yr or living with SO in a stable common law relationship ≥ 2 yrs; meet abuse or dependence criteria for ≥ 1 psychoactive substance use disorder (not nicotine), primary drug of abuse not alcohol; agree to refrain from psychoactive substances during treatment; no additional substance-abuse treatment except self-help meetings during treatment unless recommended by primary individual therapists <u>Exclusions</u>: male partner met criteria for psychoactive substance use disorder in past 6 months; male or female partners met criteria for organic mental disorder, schizophrenia, delusional (paranoid) disorder, or other psychotic disorders; or female partners were in a methadone maintenance program and seeking treatment for adjunctive outpatient support.</p>	<p>1) Behavior Couples Therapy and Individual Behavioral Therapy N = 37</p> <p>2) Individual Behavioral Therapy N = 38</p>	<p>1) <u>Format</u>: Individual and group counseling + couple therapy <u>Manualized</u>: Yes <u>Sessions</u>: 56; <u>Weeks 1-12</u>: 1 group; 1 individual; 1 couple therapy session per week; <u>Weeks</u> 13-20: 1 individual session per week; emergency sessions as needed <u>Txt Length</u>: 20 weeks <u>Approach</u>: Individual cognitive- behavioral therapy for skills building + Behavioral Couples Therapy including a sobriety contract daily between couples, communication skills, and positive behavioral exchange</p> <p>2) <u>Format</u>: Group, individual, and behavioral couples therapy <u>Manualized</u>: Yes <u>Sessions</u>: 56; <u>Weeks 1-12</u>: 1 group; 2 individual per week; <u>Weeks 13-20</u>: 1 individual session per week; emergency sessions as needed <u>Txt Length</u>: 20 weeks <u>Approach</u>: Individual cognitive- behavioral therapy for skills building</p>	<p><u>Patient Outcomes</u> Symptoms a. PDA</p> <p><u>Family Outcomes</u> Couple functioning a. DAS b. MHS</p> <p><u>Intermediate Outcomes</u> Attendance a. session attendance Treatment Satisfaction a. CSQ</p>	<p><u>Allocation</u> <u>Concealment</u>: NR</p> <p><u>Blinding</u>: NR</p> <p><u>Intention-to-treat</u> <u>analysis</u>: Yes</p> <p><u>Withdrawals</u> <u>adequately</u> <u>described</u>: Yes</p> <p><u>Treatment</u> <u>integrity</u>: Trained and supervised</p> <p><u>Study Quality</u>: <b>Good</b></p>

NR = not reported; HS = high school; SO = significant other or family member included; DSM = Diagnostic and Statistical Manual of Mental Disorders; CM = Contingency Management; tx = treatment; BCT=Behavioral couple therapy; PDA = percent days abstinent; ASI = Addiction Severity Index; CSQ =Client Satisfaction Questionnaire; MHS = Marital Happiness Scale; ACQ=Areas of Change Questionnaire; PI = Principal Investigator; MAT=Locke Wallace Marital adjustment test; CTS =Conflict Tactics Scale; IBMM = Individual Based Methadone Maintenance; ns = not significant; BFT = Behavioral Family Therapy; IBT = Individual Based Therapy; PACT = Psychoeducational Attention Control Treatment; PDHD=percent days heavy drinking; DAS=Dyadic Adjustment Scale; S-BCT=Standard Behavioral Couples Therapy; TLFB=Time Line Follow Back interview; HOPE = Helping Other Partners Excel; BDI = Beck Depression Inventory; CRT= Community reinforcement training intervention; PSBCT = Parent Skills with Behavioral Couples Therapy; BMT = Behavioral Marital Therapy; ABMT = Alcohol focused spouse involvement plus behavioral marital therapy; AA = Alcoholics Anonymous; RP = Relapse prevention; MMSE = Mini mental Status Exam; CRAFT= Community Reinforcement and Family Training; CSO = concerned significant other; FES = Family Environment Scale; RHS = Relationship Happiness Scale; CBQ = Couples Behaviors Questionnaire; TAU = Treatment as usual; C/AF = couples with alcohol focus; PDO= problem drinker only; MAST = Michigan Alcoholism Screening Test

Table 2. Patient Outcomes – Substance Abuse Studies

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>SYMPTOM IMPROVEMENT</b>				
Carroll, 2001 <sup>77</sup> 1) SO+CM+Naltrexone 2) CM+Naltrexone 3) Naltrexone only	Drug Free Urine Screens 1) 16.7 (15.1) N=48 2) 13.6 (13.6) N=35 3) 8.9 (12.0) N=44 1) vs. 2) (p=0.35) <b>1) &amp; 2) vs. 3) (p=0.02)</b>			
		Opiate Free Urine Screens 1) 20.2 (15.5) N=48 2) 18.9 (13.7) N=35 3) 13.5 (12.0) N=44 1) vs. 2) (p=0.48) <b>1) &amp; 2) vs. 3) (p=0.04)</b>		
		Cocaine Free Urine Screens 1) 18.5 (15.0) N=48 2) 16 (13.5) N=35 3) 12.2 (12.6) N=44 1) vs. 2) (p=0.44) 1) & 2) vs. 3) (p=0.06)		
		% Drug-Free Urine 1) 59.7% (39.7) 2) 57.4% (39.1) 3) 45.2% (39.3) 1) vs. 2) (p=.77) 1) & 2) vs. 3) (p=0.08)		
		PDA, Opioids 1) 89% (20.3) 2) 87.5% (20.9) 3) 79.8% (25.5) 1) vs. 2) (p=.37) 1) & 2) vs. 3) (p=0.06)		
		PDA, Cocaine 1) 88.6% (14.9) 2) 84.3% (24.5) 3) 82.6% (23.0) 1) vs. 2) (p=.77) 1) & 2) vs. 3) (p=0.06)		
		Maximum PDA, Opioids 1) 53.4% (36.5) 2) 49.1% (32.7) 3) 37.7% (32.8) 1) vs. 2) (p=0.60) <b>1) &amp; 2) vs. 3) (p=0.05)</b>		

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
		Maximum PDA, Cocaine 1) 51.7% (35.4) 2) 49.1% (32.7) 3) 37.7% (32.8) 1) vs. 2) (p=0.39) 1) & 2) vs. 3) (p=0.09)		
Fals-Stewart, 1996, <sup>66</sup> 2002, <sup>85</sup> 1) BCT 2) IBT <i>Per protocol analysis</i>	PDA, drugs 1) 37.9% (30.1) 2) 38.4% (30.4) p=ns	PDA, drugs 1) 97.1% (9.2) 2) 94.1% (8.6) p=ns	PDA, drugs <b>1) 84.4% (25.3)</b> <b>2) 73.2% (23.3)</b> (authors reported significant difference, but p-value NR)	PDA, drugs <b>1) 76.6% (27.7)</b> <b>2) 69.4% (22.1)</b> (authors reported significant difference, but p-value NR)
	PDA, alcohol 1) 78.3% (46.5) 2) 79.4% (40.7) p=ns	PDA, alcohol 1) 97.4% (21.1) 2) 96.3% (20.4) p=ns	PDA, alcohol 1) 84.3% (28.7) 2) 78.6% (29.9) p=ns	PDA, alcohol 1) 77.4% (34.9) 2) 71.6% (33.6) p=ns
	PDA, alcohol and drugs 1) 31.3% (38.6) 2) 28.2% (34.4) p=ns	PDA, alcohol and drugs 1) 95.4% (15.4) 2) 91.1% (14.1) p=ns	PDA, alcohol and drugs <b>1) 81.5% (28.6)</b> <b>2) 70.4% (24.5)</b> (authors reported significant difference, but p-value NR)	PDA, alcohol and drugs <b>1) 73.2% (29.8)</b> <b>2) 65.1% (26.9)</b> (authors reported significant difference, but p-value NR)
				% change in days abstinent <b>% improved</b> <b>1) 83%</b> <b>2) 60% p=.03</b> % Unchanged 1) 17% 2) 40% p=NR
	% days alcohol/drug use 1) 68.7% (38.6) 2) 71.8% (34.4), p=ns			% days alcohol/drug use <b>1) 19.0% (26.9)</b> <b>2) 29.7% (26.1)</b> (authors reported significant difference, but p-value NR)
	% days drug use 1) 62.1% (30.1) 2) 61.7% (30.4) p=ns			% days drug use <b>1) 16.5% (25.1)</b> <b>2) 26.1% (24.0)</b> (authors reported significant difference, but p-value NR)
	% days alcohol use 1) 21.7% (46.5) 2) 20.6% (40.7) p=ns			% days alcohol use <b>1) 16.4% (30.3)</b> <b>2) 22.3% (29.9)</b> (authors reported significant difference, but p-value NR)
	% days heavy alcohol use 1) 17.9% (31.2) 2) 18.3% (33.6) p=ns			% days heavy alcohol use <b>1) 8.4% (19.2)</b> <b>2) 16.9% (20.4)</b> (authors reported significant difference, but p-value NR)

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
Fals-Stewart, 2001 <sup>67</sup> 1) BCT 2) IBMM Completers	Alcohol composite score of ASI 1) 0.32 (.06) N=19 2) 0.33 (.07) N=17 p=ns	Alcohol composite score of ASI 1) 0.27 (.06) N=19 2) 0.34 (.08) N=17 Paired t-test, p=ns for both BCT and IBMM		
	Drug composite score of ASI 1) 0.44 (.08) N=19 2) 0.41 (.09) N=17 p=ns	Drug composite score of ASI <b>1) 0.16 (.09) N=19</b> <b>2) 0.28 (.08) N=17</b> <b>p&lt;0.01</b>		
Fals-Stewart, 2003 <sup>68</sup> 1) Naltrexone + BFT 2) Naltrexone + IBT ITT				PDA from opioids <b>1) 69.3% (21.4)</b> <b>2) 56.3% (20.2)</b> <b>p&lt;.01</b>
				PDA from cocaine <b>1) 74.4% (22.9)</b> <b>2) 61.8% (24.2)</b> <b>p&lt;0.05</b>
				PDA from alcohol <b>1) 69.4% (23.2)</b> <b>2) 60.1% (24.2)</b> <b>p&lt;0.05</b>
				PDA from drugs <b>1) 59.6% (26.4)</b> <b>2) 49.3% (28.4)</b> <b>p&lt;0.05</b>
Fals-Stewart, 2005 <sup>69</sup> 1) BBCT 2) S-SBT 3) IBT 4) PACT ITT	PDHD 1) 56.32% (22.41) 2) 58.91% (24.34) 3) 59.47% (25.23) 4) 57.46% (26.12) p=NR	PDHD 1) 5.0% (12.2) 2) 5.2% (14.3) 3) 4.9% (15.1) 4) 5.0% (17.0) p=NR	PDHD 1) 15.0% (18.0) 2) 14.1% (19.3) 3) 23.6% (15.0) 4) 24.3% (15.0) p=NR	PDHD 1) 19.5% (20.2) 2) 19.2% (38.2) 3) 38.2% (25.6) 4) 37.3% (27.0) p=NR
		<u>Piecewise growth model for effect of tx condition on PDHD:</u> <b>Equivalence test between:</b> <b>1) vs. 2): z=0.16, p&lt;0.05</b>  Group differences between: 1) vs. 3): z=-0.06, p=ns 1) vs. 4): z=-0.01, p=ns		<u>Piecewise growth model for effect of tx condition on PDHD after tx:</u> <b>Equivalence test between:</b> <b>1) vs. 2): z=0.13, p&lt;0.05</b>  <b>Group differences between:</b> <b>1) vs. 3): z=-2.02, p&lt;0.05</b> <b>1) vs. 4): z=2.34, p&lt;0.05</b>

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
Fals-Stewart, 2006 <sup>74</sup> 1) BCT 2) IBT 3) PACT ITT	PDA 1) 44.21% (35.10) 2) 40.82% (34.26) 3) 43.70% (30.64) p=ns	PDA 1) 96.3% (16.3) 2) 93.6% (17.7) 3) 94.5% (14.8) p=ns	PDA 1) 85.9% (18.1) 2) 75.0% (20.3) 3) 74.4% (22.5) p=ns	PDA <b>1) 79.3% (29.7)</b> <b>2) 60.2% (20.9)</b> <b>3) 62.1% (21.6)</b> <b>p&lt;0.01</b>
		<u>Piecewise growth model for effect of tx condition on PDA:</u> Group differences between: 1) vs. 2): z=1.02, p=ns 1) vs. 3): z=0.99, p=ns		<u>Piecewise growth model for effect of tx condition on linear rate of change in PDA after tx:</u> <b>Group differences between:</b> <b>1) vs. 2): z=-3.3, p&lt;0.05</b> <b>1) vs. 3): z =2.4, p&lt;0.05</b>
Fals-Stewart, 2008 <sup>78</sup> 1) BBCT 2) BCT 3) IBT 4) PACT ITT	PDA 1) 36.2% (29.4) 2) 38.3% (32.1) 3) 37.0% (30.5) 4) 34.0% (32.2) p=NR	PDA 1) 93.7% (12.6) 2) 94.1% (13.4) 3) 88.3% (13.0) 4) 89.6% (14.1) p=NR	PDA 1) 83.4% (27.2) 2) 84.1% (26.5) 3) 70.3% (27.1) 4) 69.5% (25.1) p=NR	PDA 1) 75.6% (26.7) 2) 74.1% (25.8) 3) 60.2% (27.3) 4) 58.9% (31.2) p=NR
		<u>Piecewise growth model for effect of tx condition on PDA:</u> <b>Equivalence test between:</b> <b>1) vs. 2): z=0.02, p&lt;0.05</b>  Group difference between: 1) vs. 3): z=0.2, p=ns 1) vs. 4): z=0.1, p=ns		<u>Piecewise growth model for effect of tx condition on PDHD after tx:</u> <b>Equivalence test between:</b> <b>1) vs. 2): z=0.2, p&lt;0.05</b> <b>Group differences between:</b> <b>1) vs. 3): z=2.1, p&lt;0.05</b> <b>1) vs. 4): z=2.3, p&lt;0.05</b>
Fals-Stewart, 2009 <sup>79</sup> 1) BCT 2) IBT	TLFB – PDHD (men) 1) 41.9 (18.7) N=NR 2) 43.8 (21.6) N=NR p=NR	TLFB – PDHD (men) 1) 6.0 (13.6) N=NR 2) 5.3 (14.9) N=NR p=NR	TLFB – PDHD (men) <b>1) 13.6 (18.9) N=NR</b> <b>2) 25.4 (21.1) N=NR</b> <b>p&lt;0.05</b>	TLFB – PDHD (men) <b>1) 18.0 (20.5) N=NR</b> <b>2) 32.2 (23.5) N=NR</b> <b>p&lt;0.05</b>
	TLFB – PDHD (women) 1) 38.6 (16.4) N=NR 2) 39.8 (19.7) N=NR p=NR	TLFB – PDHD (women) 1) 5.1 (14.1) N=NR 2) 5.3 (14.1) N=NR p=NR	TLFB – PDHD (women) <b>1) 11.9 (15.8) N=NR</b> <b>2) 20.6 (18.2) N=NR</b> <b>p&lt;0.05</b>	TLFB – PDHD (women) <b>1) 15.7 (20.4) N=NR</b> <b>2) 27.9 (20.6) N=NR</b> <b>p&lt;0.05</b>
		<u>Multi-level growth model for effect of tx condition on PDHD (men):</u> Group difference between: 1) vs. 2): z= -1.1, p=ns		<u>Multi-level growth model for effect of tx condition on PDHD after tx (men):</u> <b>Group difference between:</b> <b>1) vs. 2): z= -2.1, p&lt;0.05</b>
		<u>Multi-level growth model for effect of tx condition on PDHD (women):</u> Group difference between: 1) vs. 2): z= 0.4, p=ns		<u>Multi-level growth model for effect of tx condition on PDHD after tx (women):</u> <b>Group difference between:</b> <b>1) vs. 2): z= 2.4, p&lt;0.05</b>

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
Jones, 2011 <sup>70</sup> 1) HOPE 2) Usual Care ITT	Days of heroin use 1) 27.3 (1.4) N=45 2) 26.6 (2.4) N=17 p>0.8	Days of heroin use (mid-tx -4 weeks) <b>1) 4.9 (1.7)</b> <b>2) 16.2 (2.6)</b> <b>p&lt;0.001</b>	Days of heroin use <b>1) 9.8 (1.9)</b> <b>2) 3.4 (6.2)</b> <b>p&lt;0.001</b>	
	Heroin use past 30 days 1) 100% N=45 2) 100% N=17 p=n/a	Heroin use past 30 days (mid tx - 4 weeks) 1) 63% (0.40) 2) 91% (1.05) p=NR	Heroin use past 30 days 1) 53% (0.40) 2) 61% (1.16) p=0.25	
	ASI Composite, Drugs 1) 0.36 (0.02) N=45 2) 0.34 (0.03) N=17 p=NR	ASI Composite, Drugs (mid tx - 4 weeks) 1) 0.19 (0.02) 2) 0.23 (0.04) p=NR	ASI Composite, Drugs 1) 0.20 (0.03) 2) 0.12 (0.08) p=0.32	
Kelley, 2002 <sup>63</sup> 1) BCT 2) IBT 3) PACT ITT	PDA (alcohol abusing pts) 1) 40.0 (35.5) N=25 2) 36.9 (33.3) N=22 3) 27.4 (29.2) N=24 p=ns	PDA (alcohol abusing pts) 1) 90.2 (21.9) 2) 86.6 (17.4) 3) 87.4 (18.2) p=ns	PDA (alcohol abusing pts) <b>1) 80.6 (27.2) vs. 2) 71.4 (26.2)</b> <b>1) 80.6 (27.2) vs. 3) 70.4 (25.3)</b> <b>p&lt;0.05</b>	PDA (alcohol abusing pts) <b>1) 70.9 (25.6) vs. 2) 60.4 (22.4)</b> <b>1) 70.9 (25.6) vs. 3) 57.9 (32.1)</b> <b>p&lt;0.05</b>
	PDA (drug abusing pts) 1) 30.4 (33.7) N=22 2) 32.7 (33.6) N=22 3) 34.9 (36.9) N=21 p=ns	PDA (drug abusing pts) 1) 85.9 (22.7) 2) 81.8 (26.2) 3) 83.4 (24.4) p=ns	PDA (drug abusing pts) <b>1) 77.6 (25.8) vs. 2) 63.6 (24.3)</b> <b>1) 77.6 (25.8) vs. 3) 61.5 (26.8)</b> <b>p&lt;0.05</b>	PDA (drug abusing pts) <b>1) 66.9 (35.6) vs. 2) 53.4 (24.8)</b> <b>1) 66.9 (35.6) vs 3) 51.2 (32.2)</b> <b>p&lt;0.05</b>
Kirby, 2009 <sup>80</sup> 1) CRT 2) Self Help		<b>SO knowledge of current drug use (5=sure he is using; 1=sure he is not using)</b> 1) 2.20 2) 2.43 p=ns		
Lam, 2009 <sup>71</sup> 1) PSBCT 2) BCT 3) IBT ITT	PDA 1) 38.3 (28.1) N=10 2) 39.2 (25.4) N=10 3) 37.6 (29.7) N=10 p=NR 1) vs. 3): z=0.24, ns; r=0.03 1) vs. 2): z=0.11; ns; r=0.02	PDA 1) 90.1 (18.6) N=10 2) 92.3 (15.2) N=10 3) 88.3 (16.7) N=10 p=NR r≥0.5 large 1) vs. 3): z=-0.28, ns; r=0.03 1) vs. 2): z=0.39; ns; r=0.23	PDA 1) 84.3 (22.4) N=10 2) 85.1 (20.7) N=10 3) 78.2 (22.6) N=10 p=NR r≥0.5 large 1) vs. 3): z=-1.08, ns; r=0.23 1) vs. 2): z=0.13; ns; r=0.02	PDA 1) 78.6 (19.4) N=10 2) 77.8 (20.2) N=10 3) 70.2 (18.6) N=10 p=NR r≥0.5 large 1) vs. 3): z=-1.4, ns; r=0.33 1) vs. 2): z=0.10; ns; r=0.02



Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
McCrary, 1996, <sup>72</sup> 1999 <sup>86</sup> 1) ABMT 2) AA/ABMT 3) RP/ABMT	Mean % drinking days 1) 15.1 (24.6) N=22 2) 19.4 (21.1) N=23 3) 9.8 (11.1) N=22 p=ns			
	Mean # drinks per drinking days 1) 7.3 (9.7) N=14 2) 5.9 (5.0) N=19 3) 4.6 (2.7) N=17 p=ns			
	PDA 1) 36.7 (32.0) N=21 2) 33.4 (24.3) N=26 3) 46.3 (30.0) N=24 p=ns	PDA 1) 80.0 (27.2) 2) 83.2 (22.7) 3) 87.6 (20.6) p=ns	PDA 1) 82.4 (25.3) N=21 2) 72.8 (33.6) N=26 3) 82.6 (24.5) N=24 p=ns	
		PDHD 1) 10.0 (19.1) 2) 9.4 (15.7) 3) 6.6 (16.9) p=ns	PDHD 1) 6.1 (11.3) N=14 2) 17.1 (25.2) N=15 3) 9.0 (17.0) N=16 p=ns	
	Mean Length of Drinking Episodes <b>1) 5.4 (7.6) vs. 2) 8.4 (14.6)</b> <b>3) 1.9 (1.7) vs. 2) 8.4 (14.6)</b> <b>p&lt;0.05</b>			
		% participants continuously abstinent 1) 31.8 N=22 2) 41.7 N=24 3) 41.7 N=24 p=NR		
		% non-problem drinking, mostly controlled 1) 18.2 N=22 2) 4.2 N=24 3) 8.3 N=24 p=NR		
		% drinking but improved 1) 18.2 N=22 2) 8.3 N=24 3) 25.0 N=24 p=NR		
		% unimproved (pre to post-6 months) 1) 31.8 N=22 2) 45.8 N=24 3) 25.0 N=24 p=NR		

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
McCrary, 2004 <sup>87</sup> 1) ABMT 2) AA/ABMT 3) RP/ABMT <i>Not ITT</i>			PDA 1) 79.51 (29.6) N=20 2) 70.41 (37.32) N=24 3) 80.63 (30.28) N=22 p=NR	PDA 1) 82.7 (30.7) N=20 2) 78.7 (33.4) N=24 3) 83.1 (29.4) N=22 p=NR
McCrary, 2009 <sup>75</sup> 1) ABCT 2) ABIT <i>Completers</i>	PDA 1) 35.0 (29.2) N=50 2) 32.0 (28.0) N=52 p=NR	PDA 1) 80.5 (27.7) N=50 2) 74.2 (35.0) N=52 p=NR	PDA 1) 75.7 (34.3) N=50 2) 61.4 (39.5) N=52 p=NR	PDA 1) 75.4 (34.7) N=50 2) 63.1 (37.6) N=52 p=NR
				<i>Latent growth curve models for PDA:</i> Differences between groups: $d = 0.31$ (small effect), p=ns
	PDHD 1) 56.8 (28.9) N=50 2) 57.3 (32.3) N=52 p=NR	PDHD 1) 10.5 (22.2) N=50 2) 18.7 (34.6) N=52 p=NR	PDHD 1) 12.3 (27.4) N=50 2) 23.8 (37.6) N=52 p=NR	PDHD 1) 12.8 (26.2) N=50 2) 22.7 (34.2) N=52 p=NR
				<i>Latent growth curve models for PDHD:</i> Differences between groups: $d = 0.19$ (small effect), p=ns
		% complete abstinence after treatment 1) 36.0 N=50 2) 34.6 N=52 p=NR		% complete abstinence after treatment 1) 16 N=50 2) 15.4 N=52 p=NR (ns)
			% no heavy drinking days 1) 60.0 N=50 2) 55.8 N=52 p=NR	% no heavy drinking days 1) 26.0 N=50 2) 28.8 N=52 p=NR
O'Farrell, 1998a <sup>4</sup> 1) BMT/RP 2) BMT <i>Sample Unclear</i>	PDA 1) 33.7 (27.6) 2) 29.2 (25.4) p=ns	PDA 1) 98.9 (4.4) 2) 98.0 (6.6) p=ns	PDA <b>1) 96.9 (6.9)</b> <b>2) 87.6 (21.2)</b> <b>p=0.03</b>	PDA 1) 84.9 (25.3) 2) 82.7 (26.1) p=ns
O'Farrell, 2008 <sup>64</sup> 1) Brief Family Treatment 2) Brief Family Treatment- in person 3) TAU <i>Completers</i>	TLFB - % days alcohol/ drug use 1) NR N=24 3) NR N=19 p=NR	TLFB - % days alcohol/drug use 1) NR N=24 3) NR N=19 p=NR r=NR	TLFB - % days alcohol/drug use 1) 22.6 (36.3) N=24 3) 36.1 (40.3) N=19 p=0.25 r=0.17 small	
	TLFB - % days alcohol or drug use (in person subset) 2) NR N=9 3) NR N=19 p=NR	TLFB - % days alcohol or drug use (in person subset) 2) NR N=9 3) NR N=19 p=NR r: NR	TLFB - % days alcohol or drug use (in person subset) 2) 10.6 (28.3) N=9 3) 36.1 (40.3) N=19 p= 0.07 r=0.33 medium	

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
O'Farrell, 2010 <sup>82</sup> 1) BFT+IBT 2) IBT ITT	PDA 1) 32.5 (33.42) 2) 35.2 (27.3) p=ns	PDA 1) 71.1(37.0) 2) 43.6 (41.9) p=0.09	PDA 1) 57.7 (40.4) 2) 46.4 (32.0) p=ns	
	PDPSU 1) 51.9 (29.5) 2) 55.8 (27.7) p=ns	PDPSU 1) 19.9 (27.5) 2) 41.1 (37.3) p=ns	PDPSU 1) 29.2 (41.4) 2) 38.7 (30.6) p=ns	
Walitzer, 2004 <sup>73</sup> 1) C/AF+BCT (family tx) 2) C/AF 3) PDO (individual tx) Completers	Abstinent/light days drinking/month 1) 17.8 (7.7) N=21 2) 17.7 (7.1) N=21 3) 15.7 (9.1) N=22 p=NR	Abstinent/light days drinking/month 1) 22.2 (4.9) N=20 2) 21.4 (7.0) N=21 3) 16.2 (8.9) N=22 p=NR	Abstinent/light days drinking/month 1) 21.2 (7.8) N=20 2) 20.8 (6.7) N=21 3) 16.7 (9.6) N=21 p=NR	Abstinent/light days drinking/month 1) 22.9 (5.4) N=20 2) 20.1 (8.0) N=21 3) 17.1 (10.4) N=20 p=NR
	Heavy days drinking/month 1) 4.9 (4.2) N=21 2) 3.6 (3.9) N=21 3) 6.7 (8.8) N=22 p=NR	Heavy days drinking/month 1) 1.5 (1.8) N=20 2) 1.8 (2.3) N=21 3) 4.7 (4.5) N=22 p=NR	Heavy days drinking/month 1) 3.1 (4.9) N=20 2) 2.1 (3.2) N=21 3) 5.5 (6.1) N=21 p=NR	Heavy days drinking/month 1) 2.6 (4.7) N=20 2) 1.9 (2.5) N=21 3) 5.8 (7.7) N=20 p=NR
Winters, 2002 <sup>76</sup> 1) BCT+ICBT 2) ICBT ITT	PDA 1) 42.3 (29.2) 2) 45.2 (28.3) p=ns	PDA 1) 94.2 (6.4) 2) 90.2 (8.0) p=ns	PDA 1) 81.9 (16.3) 2) 71.9 (17.9) p<0.05	PDA 1) 74.2 (22.2) 2) 65.4 (26.1) p=ns
<b>HEALTH CARE UTILIZATION</b>				
Kirby, 1999 <sup>80</sup> 1) CRT 2) Self Help	% of pt entry into treatment during FSO treatment 1) 64% 2) 17% p<0.01			
McCrary, 2009 <sup>75</sup> 1) ABCT 2) ABIT Completers				% pts receiving add'l tx 1) 18.0 2) 11.5 p=NR (ns) Days add'l tx 1) 37.6 (26.6) 2) 24.7 (24.7) p= NR
Meyers, 2002 <sup>83</sup> 1) CRAFT 2) CRAFT+Aftercare 3) AA/AL-NAR Facilitation Therapy		Pt completes a baseline assessment and schedules a substance use tx session 1) 58.6% 2) 76.7% 3) 29.0%, p<0.01 Both CRAFT conditions (1 & 2) better than condition 3, but no significant differences between conditions 1 and 2		

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
Miller, 1999 <sup>81</sup> 1) CRAFT 2) Johnson Institute 3) AA ITT			% completing at least an initial assessment and 1 substance use treatment session 1) 64.4% vs. 2) 30.0% 1) 64.4% vs. 3) 13.3% p<0.001	% completing at least an initial assessment and 1 substance use treatment session 1) 66.7% vs. 2) 35.0% 1) 66.7% vs. 3) 20.0% p<0.001
O'Farrell, 2008 <sup>64</sup> 1) Brief Family Treatment 2) Brief Family Treatment+in person subgroup 3) TAU			% continued care in 30 day period post detoxification (1 month post-treatment) 1) 92% N=24 2) 62% N=21 p=0.02; r=0.36 medium	
			Days attended continuing care in 3 months post tx (3 months post-treatment) 1) 12.4 (11.4) N=24 2) 7.2 (11.3) N=19 p=0.13; r=0.22 small	
<b>GLOBAL FUNCTIONING</b>				
Jones, 2011 <sup>70</sup> 1) HOPE 2) UC ITT	Beck Depression Inventory 1) 13.7 (1.5) N=45 2) 18.7 (2.4) N=17 p=0.10	Beck Depression Inventory Mid-treatment (4 weeks): 1) 6.6 (1.7) 2) 14.3 (2.6) p=NR	Beck Depression Inventory 1) 9.7 (5.6) 2) 7.5 (1.9) p=0.56	
Walitzer, 2004 <sup>73</sup> 1) C/AF+BCT (family tx) 2) C/AF 3) PDO (individual tx) Completers	Drinker Inventory of Consequences 1) 19.7 (9.9) N=19 2) 20.4 (1.7) N=21 3) 21.9 (18.4) N=21 p=NR		Drinker Inventory of Consequences 1) 12.2 (13.2) N=16 2) 13.5 (11.9) N=18 3) 15.5 (12.1) N=17 p=NR	Drinker Inventory of Consequences 1) 12.8 (14.4) N=17 2) 15.6 (16.1) N=18 3) 11.6 (8.4) N=15 p=NR

Outcomes reported as mean (standard deviation) unless otherwise noted.

Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.

Measures listed in the study descriptive tables but not reported here if either 1) the authors did not report findings from these measures or 2) they did not test for differences between conditions on these measures.

ns = not significant (at 5% level); NR = not reported; N/A = not applicable; tx = treatment; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach.

BCT = Behavioral Couple/Marital Therapy; BFT = Behavioral Family Therapy ; CBT = Individual Cognitive-Behavioral Therapy; BBCT = Brief Behavioral Couples Therapy; IBT = Individual Based Treatment; ACT = Assertive Community Treatment; MFG = Multiple Family Group; SAS-FV = Social Adjustment Scale III, Family Version; AFM = Applied Family Management; SFM = Supportive Family Management; SC = Standard care; MSANS = Modified Scale for Assessment of Negative Symptoms; PDA = Percent Days Abstinent; PDHD = Percent Days Heavy Drinking; FSO = family member or significant other; CRT = Community Reinforcement Training; PSBCT = Parent Skills with Behavioral Couples Therapy; ABMT = Alcohol focused behavioral marital therapy; AA = Alcoholics Anonymous/Al-Anon; RP = relapse prevention; TAU = Treatment as usual.

**Table 3. Family Outcomes – Substance Abuse Studies**

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>FAMILY FUNCTIONING</b>				
Carroll, 2001 <sup>77</sup> 1) SO + CM + Naltrexone 2) CM + Naltrexone 3) Naltrexone only		Addiction Severity Index (z-score) <b>1) vs. 2) 2.30 p=0.02</b> <b>1) vs. 2) &amp; 3) = -2.4, p=0.02</b>		
Fals-Stewart, 2003 <sup>68</sup> 1) BFT 2) IBT	Family functioning subscale of Addiction Severity Index <b>1) 0.4 (.08)</b> <b>2) 0.5 (.09)</b> <b>authors reported significant difference, but p-value NR</b>	Family functioning subscale of Addiction Severity Index <b>1) 0.2 (.1)</b> <b>2) 0.3 (.1)</b> <b>authors reported significant difference, but p-value NR</b>		
Kirby, 1999 <sup>80</sup> 1) CRT 2) 12-step		Social Adjustment Scale (family unit subscale, pre-post change) 1) -.64 2) -.54 p=ns		
Miller, 1999 <sup>81</sup> 1) CRAFT 2) Johnson Institute 3) Al-Anon ITT	SO's report of Family Environment Scale – Family Cohesion 1) 5.6 (2.6) 2) 4.4 (2.2) 3) 5.3 (2.9) p=ns	SO's report of Family Environment Scale – Family Cohesion 1) 6.2 (2.8) 2) 5.2 (3.0) 3) 5.8 (2.7) p=ns	SO's report of Family Environment Scale – Family Cohesion 1) 6.8 (2.3) 2) 5.9 (2.6) 3) 5.7 (2.9) p=ns	
	SO's report of Relationship Happiness Scale 1) 4.9 (2.8) 2) 4.8 (2.0) 3) 5.6 (2.3) p=ns	SO's report of Relationship Happiness Scale 1) 5.9 (2.8) 2) 4.8 (2.6) 3) 5.6 (2.7) p=ns	SO's report of Relationship Happiness Scale 1) 6.4 (2.7) 2) 5.9 (2.6) 3) 6.3 (2.8) p=ns	

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>COUPLE FUNCTIONING</b>				
Fals-Stewart, 1996, <sup>66, 84, 85</sup> 1) BCT 2) IBT	Marital Adjustment Test <b>1) 67.5 (20.1)</b> <b>2) 66.9 (20.8)</b> <b>authors reported significant difference, but p-value NR</b>	Marital Adjustment Test <b>1) 97.3 (17.2)</b> <b>2) 70.8 (17.5)</b> <b>authors reported significant difference, but p-value NR</b>	Marital Adjustment Test 1) 71.7 (19.3) 2) 70.2 (18.4) p=ns	Marital Adjustment Test 1) 71.6 (21.2) 2) 70.2 (18.8) p=ns
	Areas of Change Questionnaire <b>1) 34.4 (10.9)</b> <b>2) 36.2 (13.0)</b> <b>authors reported significant difference, but p-value NR</b>	Areas of Change Questionnaire <b>1) 20.0 (11.9)</b> <b>2) 32.7 (13.8)</b> <b>authors reported significant difference, but p-value NR</b>	Areas of Change Questionnaire 1) 35.0 (11.7) 2) 38.7 (12.1) p=ns	Areas of Change Questionnaire 1) 34.1 (11.8) 2) 37.0 (12.0) p=ns
	% days separated 1) 19.8 (17.7) 2) 17.6 (18.4) p=NR	% days separated 1) 3.5 (4.3) 2) 15.1 (16.3) p=NR	% days separated 1) 7.4 (18.6) 2) 22.4 (24.6) p=NR	% days separated 1) 20.7 (21.4) 2) 22.4 (29.1) p=ns
		% change on Marital Adjustment Test % Improved <b>1) 60%</b> <b>2) 35% (p=0.03)</b> % unchanged 1) 38% 2) 50% (p=0.26) <b>deteriorated</b> <b>1) 2%</b> <b>2) 15% (p=0.05)</b>		
	Aggregated MAT scores <b>1) 67.5 (20.1)</b> <b>2) 66.9 (20.8)</b> <b>authors reported significant difference, but p-value NR</b>			Aggregated MAT scores <b>1) 76.0 (20.4)</b> <b>2) 69.9 (19.0)</b> <b>authors reported significant difference, but p-value NR</b>
	Aggregated ACQ scores 1) 34.4 (10.9) 2) 36.2 (13.0) p=ns			Aggregated ACQ scores 1) 32.4 (11.9) 2) 37.3 (13.4) p=ns
Fals-Stewart, 2001 <sup>67</sup> 1) BCT 2) IBMM <i>Completers</i>	Dyadic Adjustment Scale 1) 72.8 (18.1) N=19 2) 75.1 (19.4) N=17 p=ns	Dyadic Adjustment Scale* <b>1) 97.9 (16.4) N=19</b> <b>2) 79.2 (18.1) N=17</b> <b>p&lt;0.01</b> *using baseline DAS as a covariate		

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
	ASI – Family-Social Composite Score 1) 0.47 (0.08) N=19 2) 0.54 (0.09) N=17 p=NR	ASI – Family-Social Composite Score* <b>1) 0.23 (0.06) N=19</b> <b>2) 0.46 (0.08) N=17</b> <b>p&lt;0.05</b>		
Fals-Stewart, 2005 <sup>69</sup> 1) BRT 2) S-BFT 3) IBT 4) PACT <i>Male partner only</i>	Dyadic Adjustment Scale 1) 88.26 (21.64) 2) 89.94 (22.61) 3) 90.61 (24.27) 4) 89.21 (22.61) p=NR	Dyadic Adjustment Scale 1) 114.3 (14.0) 2) 119.3 (11.9) 3) 104.6 (11.6) 4) 106.3 (13.0) p=NR	Dyadic Adjustment Scale 1) 109.4 (15.3) 2) 112.6 (16.2) 3) 98.4 (11.6) 4) 97.9 (13.2) p=NR	Dyadic Adjustment Scale 1) 107.3 (16.3) 2) 109.3 (17.2) 3) 96.0 (19.3) 4) 93.0 (20.2) p=NR
		<u>Piecewise growth model for effect of tx condition on DAS:</u> Equivalence test between: 1) vs 2): z=1.7, p=ns  <b>Group differences between:</b> <b>1) vs 3): z=-2.6, p&lt;.01</b> <b>1) vs 4): z=-2.5, p&lt;.01</b>		<u>Piecewise growth model for effect of tx condition on DAS after tx:</u> Equivalence test between: 1) vs 2): z=1.0, p=ns  <b>Group differences between:</b> <b>1) vs 3): z=-2.2, p&lt;0.05</b> <b>1) vs 4): z=2.0, p&lt;0.05</b>
Fals-Stewart, 2006 <sup>74</sup> 1) BCT 2) IBT 3) PACT <i>Female patients only</i>	Dyadic Adjustment Scale 1) 94.64 (19.36) 2) 96.11 (18.44) 3) 95.34 (18.40) p=NR	Dyadic Adjustment Scale 1) 123.0 (12.1) 2) 111.2 (18.6) 3) 109.8 (13.3) p=NR	Dyadic Adjustment Scale 1) 117.2 (13.7) 2) 102.2 (14.4) 3) 100.1 (15.2) p=NR	Dyadic Adjustment Scale 1) 112.4 (14.0) 2) 98.0 (18.8) 3) 98.0 (16.2) p=NR
		<u>Piecewise growth model for effect of tx condition on DAS:</u> <b>Group differences between:</b> <b>1) vs. 2): z=2.6, p&lt;.01</b> <b>1) vs. 3): z=2.7, p&lt;.01</b>		<u>Piecewise growth model for effect of tx condition on linear rate of change in DAS after tx:</u> <b>Group differences between:</b> <b>1) vs. 2): z=2.2, p&lt;0.05</b> <b>1) vs. 3): z=2.0, p&lt;0.05</b>

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
Fals-Stewart, 2008 <sup>78</sup> 1) BBCT 2) BCT 3) IBT 4) PACT Participants	Dyadic Adjustment Scale 1) 85.0 (16.7) 2) 83.8 (17.1) 3) 86.8 (20.8) 4) 85.9 (21.0) p=NR	Dyadic Adjustment Scale 1) 112.3 (15.2) 2) 114.2 (15.1) 3) 101.9 (13.6) 4) 100.1 (11.8) p=NR	Dyadic Adjustment Scale 1) 107.2 (15.3) 2) 109.8 (16.0) 3) 94.1 (14.8) 4) 93.0 (15.9) p=NR	Dyadic Adjustment Scale 1) 104.4 (16.9) 2) 106.9 (16.5) 3) 87.3 (17.2) 4) 88.7 (18.6) p=NR
		<u>Piecewise growth model for effect of tx condition on DAS:</u> Test of equivalence between: 1) vs. 2): z=1.6, p=ns  <b>Group differences between:</b> 1) vs. 3): z=-2.9, p<.01 1) vs. 4): z=2.8, p<.01		<u>Piecewise growth model for effect of tx condition on DAS after tx:</u> Test of equivalence between: 1) vs 2): z=-0.8, p=ns  <b>Group differences between:</b> 1) vs. 3): z=-2.8, p<0.01 1) vs. 4): z=2.0, p<0.05
Fals-Stewart, 2009 <sup>79</sup> 1) BCT 2) IBT	DAS (men) 1) 88.2 (22.9) N=NR 2) 86.8 (23.1) N=NR p=NR	DAS (men) 1) 119.4 (13.6) N=NR 2) 110.4 (14.2) N=NR p<0.05	DAS (men) 1) 109.5 (16.2) N=NR 2) 95.4 (18.2) N=NR p<0.05	DAS (men) 1) 106.0 (22.8) N=NR 2) 92.0 (20.3) N=NR p<0.05
	DAS (women) 1) 92.7 (20.4) N=NR 2) 93.2 (23.1) N=NR p=NR	DAS (women) 1) 111.4 (12.7) N=NR 2) 103.2 (15.2) N=NR p<0.05	DAS (women) 1) 104.9 (17.5) N=NR 2) 95.4 (19.5) N=NR p<0.05	DAS (women) 1) 101.4 (22.8) N=NR 2) 92.0 (22.7) N=NR p<0.05
		<u>Multi-level growth model for effect of tx condition on DAS (men):</u> <b>Group differences between:</b> 1) vs. 2): z=-2.8, p<.01		<u>Piecewise growth model for effect of tx condition on linear rate of change in DAS after tx (men):</u> <b>Group differences between:</b> 1) vs. 2): z=2.0, p<0.05
		<u>Multi-level growth model for effect of tx condition on DAS (women):</u> <b>Group differences between:</b> 1) vs. 2): z=2.1, p<.05		<u>Piecewise growth model for effect of tx condition on linear rate of change in DAS after tx (men):</u> Group differences between: 1) vs. 2): z=1.4, p=ns
Jones, 2001 <sup>70</sup> 1) HOPE 2) Usual Care ITT	Partner Support Quest. (mean, SE) 1) 3.3 (0.2) N=45 2) 3.5 (0.3) N=17 p>0.4	Partner Support Quest.(mid-tx -4 weeks) 1) 3.6 (0.2) 2) 2.6 (0.3) p=NR	Partner Support Quest. 1) 2.6 (0.2) 2) 3.4 (0.8) p=NR	



Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
	Relationship Assessment score (mean, SE) 1) 61.8 (1.7) 2) 59.0 (2.9) p>0.4	Relationship Assessment score (mid-tx 4 weeks) 1) 62.5 (2.0) 2) 62.1 (3.1) p=NR	Relationship Assessment score 1) 68.5 (2.2) 2) 65.6 (6.9) p=0.83	
Kelley, 2002 <sup>63</sup> 1) BCT 2) IBT (Individual) 3) PACT (couples, no BCT) ITT	DAS (alcohol abusing pts) 1) 85.3 (21.4) N=25 2) 84.6 (22.2) N=22 3) 83.3 (22.4) N=24 p=ns	DAS (alcohol abusing pts) <b>1) 115.4 (18.2)*</b> <b>2) 102.2 (19.1)</b> <b>3) 104.6 (21.6)</b> p<0.05 (significantly higher than baseline) *significantly higher than the other treatment groups	DAS (alcohol abusing pts) <b>1) 103.9 (16.2)*</b> <b>2) 86.7 (19.2)</b> <b>3) 85.8 (23.0)</b> p<0.05 (significantly higher than baseline) *significantly higher than the other treatment groups	DAS (alcohol abusing pts) <b>1) 91.4 (19.9)*</b> <b>2) 82.1 (20.7)</b> <b>3) 80.0 (19.6)</b> p<0.05 (significantly higher than baseline) *significantly higher than the other treatment groups
	DAS (drug abusing pts) 1) 75.2 (22.7) N=22 2) 77.3 (19.8) N=21 3) 74.4 (20.2) N=21 p=ns	DAS (drug abusing pts) <b>1) 103.6 (22.1)*</b> <b>2) 88.7 (16.4)</b> <b>3) 86.4 (21.7)</b> p<0.05 (significantly higher than baseline)	DAS (drug abusing pts) <b>1) 93.6 (17.2)*</b> <b>2) 77.8 (18.7)</b> <b>3) 80.0 (19.2)</b> p<0.05 (significantly higher than baseline) *significantly higher than the other treatment groups	DAS (drug abusing pts) <b>1) 90.7 (22.3)*</b> <b>2) 75.8 (20.4)</b> <b>3) 77.2 (21.6)</b> p<0.05 (significantly higher than baseline) *significantly higher than the other treatment groups
Kirby, 1999 <sup>80</sup> 1) CRT 2) 12-step ITT		SAS (marital subscale, pre-post change) 1) -.18 2) -.05 (p=ns)		
Lam, 2009 <sup>71</sup> 1) PSBCT 2) BCT 3) IBT ITT	Dyadic Adjustment scale 1) 86.7 (19.1) N=10 2) 84.2 (20.6) N=10 3) 83.6 (22.4) N=10 p=NR	Dyadic Adjustment Scale 1) 112.3 (18.6) N=10 2) 114.4 (16.8) N=10 3) 98.1 (17.9) N=10 p=NR Within group over time: 1) r≥0.5 large 2) r≥0.5 large 3) r≥0.3 medium Paired contrasts: 1) vs. 3) medium 2) vs. 3) medium 1) vs. 2) negligible	Dyadic Adjustment Scale 1) 104.0 (19.2) N=10 2) 105.9 (19.6) N=10 3) 93.9 (20.2) N=10 p=NR Within group over time: 1) r≥0.5 large 2) r≥0.5 large 3) r≥0.2 clinically meaningful Paired contrasts: 1) vs. 3) medium 2) vs. 3) medium 1) vs. 2) negligible	Dyadic Adjustment Scale 1) 98.3 (20.2) N=10 2) 99.8 (20.3) N=10 3) 88.9 (22.0) N=10 p=NR Within group over time: 1) r≥0.3 medium 2) r≥0.3 medium 3) r=negligible Paired contrasts: 1) vs. 3) medium 2) vs. 3) medium 1) vs. 2) negligible

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
McCrary, 2004 <sup>87</sup> 1) ABMT 2) AA/ABMT 3) RP/ABMT				Marital Happiness Scale (18 months) 1) 5.2 (1.0) 2) 5.0 (1.0) 3) 5.1 (1.1) p=ns
McCrary, 2009 <sup>75</sup> 1) ABCT 2) ABIT <i>Completers</i>				% separated during follow up 1) 20.0% 2) 11.5% p=NR
				Length separation (days) 1) 251.0 (186.4) 2) 128.2 (125.0) p=NR
O'Farrell, 1998a <sup>4</sup> 1) BMT+RP 2) BMT <i>Sample Unclear</i>	Marital Adjustment Test (husband report, patient) 1) 96.1 (20.4) 2) 86.6 (31.7) p=ns	Marital Adjustment Test (husband report, patient) 1) 108.3 (21.9) 2) 104.1 (30.0) p=ns	Marital Adjustment Test (husband report, patient) 1) 112.7 (22.4) 2) 102.4 (30.6) p=ns	Marital Adjustment Test (husband report, patient) 1) 112.4 (19.3) 2) 96.7 (36.1) p=ns Final (30 months): 1) 102.5 (29.9) 2) 89.8 (39.6) p=ns
	CBQ (marital behaviors) – Average couple response 1) 3.5 (0.7) 2) 3.3 (0.8) p=ns	CBQ (marital behaviors) – Average couple response 1) 2.5 (0.9) 2) 2.2 (0.9) p=ns		CBQ (marital behaviors) – Average couple response 1) 2.5 (0.9) 2) 2.2 (1.0) p=ns Final (30 months): 1) 2.1 (1.1) 2) 1.9 (1.1) p=ns

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
O'Farrell, 1998b <sup>65</sup> 1) BMT 2) ICT 3) Individual Tx Only Sample Unclear	Sexual Adjustment Questionnaire - satisfaction with privacy and context 1) 2.9 (0.9) 2) 3.3 (1.2) 3) 3.7 (3.9) p=ns	Sexual Adjustment Questionnaire - satisfaction with privacy and context 1) <b>3.8 (1.3)*</b> 2) 3.5 (1.2) 3) 3.9 (1.2) p=0.003 <i>*changes for group 1 were significant, but not other groups</i>		
	Sexual Adjustment Questionnaire - frequency of intercourse 1) 4.2 (1.9) 2) 5.0 (1.5) 3) 5.0 (2.1) p=ns	Sexual Adjustment Questionnaire - frequency of intercourse 1) 4.7 (2.0) 2) 5.1 (1.7) 3) 4.0 (1.9) p=ns		
O'Farrell, 2010 <sup>82</sup> 1) BFT+IBT 2) IBT	RHS dyad score 1) 42.4 (19.5) 2) 42.5 (11.9) p=NR	RHS dyad score 1) 58.8 (13.9) 2) 54.8 (11.7) p=NR; r=0.07	RHS dyad score 1) 52.8 (17.6) 2) 51.2 (15.2) p=NR; r=0.07	
Walitzer, 2004 <sup>73</sup> 1) C/AF 2) C/AF+BCT (family) 3) PDO (individual) ITT	Dyadic Adjustment Scale 1) 104.1 (12.3) N=20 2) 107.6 (13.3) N=19 3) 108.5 (22.0) N=21 p=ns	Dyadic Adjustment Scale 1) 103.7 (15.7) N=19 2) 108.4 (14.4) N=19 3) 105.4 (26.2) N=21 p=ns	Dyadic Adjustment Scale 1) 106.0 (12.4) N=18 2) 107.8 (12.7) N=16 3) 108.3 (25.6) N=15 p=ns	Dyadic Adjustment Scale 1) 109.0 (10.1) N=17 2) 101.2 (15.9) N=17 3) 113.6 (23.0) N=14 p=ns
Winters, 2002 <sup>76</sup> 1) BCT+IBCT 2) IBCT ITT/Female patients	Dyadic Adjustment Scale 1) 81.4 (32.7) 2) 83.6 (31.8) p=ns	Dyadic Adjustment Scale <b>1) 105.3 (13.2)</b> <b>2) 97.2 (16.1)</b> <b>p=0.05</b>	Dyadic Adjustment Scale 1) 93.4 (22.7) 2) 84.3 (23.6) p=ns	Dyadic Adjustment Scale 1) 86.2 (25.2) 2) 82.8 (25.9) p=ns

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>INTIMATE PARTNER VIOLENCE</b>				
Fals-Stewart, 1996, <sup>74</sup> 2000, <sup>84</sup> 2002 <sup>85</sup> 1) BCT 2) IBT	<u>Male to female partner violence</u> <p>(p = NR for all)</p> <ul style="list-style-type: none"> <li>a. Twisted partner' arm: 1) 8% vs. 2) 10%</li> <li>b. Pushed, grabbed partner: 1) 25% vs. 2) 30%</li> <li>c. Slapped partner: 1) 10% vs. 2) 13%</li> <li>d. Forced sex on partner: 1) 13% vs. 2) 15%</li> <li>e. Shaken partner: 1) 20% vs. 2) 23%</li> <li>f. Thrown partner: 1) 3% vs. 2) 3%</li> <li>g. Thrown object at partner: 1) 10% vs. 2) 13%</li> <li>h. Choked / strangled partner: 1) 0% vs. 2) 0%</li> <li>i. Kicked, bitten, hit partner: 1) 18% vs. 2) 18%</li> <li>j. Hit or tried to hit partner: 1) 20% vs. 2) 23%</li> <li>k. Beaten up partner: 1) 0% vs. 2) 3%</li> <li>l. Threatened partner with knife or gun: 1) 0% vs. 2) 0%</li> <li>m. Used knife or gun on partner: 1) 0% vs. 2) 0%</li> </ul> <p>p=NR</p>			<u>Male to female partner violence</u> <p>(p = NR for all)</p> <p>Male to female partner violence (p = NR for all)</p> <ul style="list-style-type: none"> <li>a. Twisted partner' arm: 1) 3% vs. 2) 8%</li> <li>b. Pushed, grabbed partner: 1) 10% vs. 2) 23%</li> <li>c. Slapped partner: 1) 8% vs. 2) 8%</li> <li>d. Forced sex on partner: 1) 5% vs. 2) 13%</li> <li>e. Shaken partner: 1) 5% vs. 2) 23%</li> <li>f. Thrown partner: 1) 0% vs. 2) 3%</li> <li>g. Thrown object at partner: 1) 5% vs. 2) 10%</li> <li>h. Choked / strangled partner: 1) 0% vs. 2) 0%</li> <li>i. Kicked, bitten, hit partner: 1) 5% vs. 2) 15%</li> <li>j. Hit or tried to hit partner: 1) 8% vs. 2) 15%</li> <li>k. Beaten up partner: 1) 0% vs. 2) 0%</li> <li>l. Threatened partner with knife or gun: 1) 0% vs. 2) 0%</li> <li>m. Used knife or gun on partner: 1) 0% vs. 2) 0%</li> </ul> <p>p=NR</p>
Fals-Stewart, 2006 <sup>74</sup> 1) BCT 2) IBT 3) PACT <i>Female patients only</i>				TLFB-SV, Male-to-Female <b>1) 1.7 (4.9)</b> <b>2) 3.4 (4.2)</b> <b>3) 3.9 (9.7)</b> <b>p&lt;0.05</b>
				TLFB-SV, Female to Male_ <b>1) 1.7 (3.8) vs. 2) 4.0 (4.2)</b> <b>1) 1.7 (3.8) vs 3) 4.1 (4.4)</b> <b>p&lt;0.05</b>

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
Lam, 2009 <sup>71</sup> 1) PSBCT 2) BCT 3) IBT ITT	TLFB –SV M-to-F, % days 1) 2.4 (3.0) N=10 2) 2.4 (2.5) N=10 3) 2.4 (2.5) N=10 p=NR	TLFB –SV M-to-F, % days 1) 1.3 (1.9) N=10 2) 1.2 (2.2) N=10 3) 1.4 (2.2) N=10 p=NR Within group over time: 1) $r \geq 0.2$ clinically meaningful 2) $r \geq 0.2$ clinically meaningful 3) $r$ =negligible Paired contrasts: 1) vs. 3) negligible 2) vs. 3) negligible 1) vs. 2) negligible	TLFB –SV M-to-F, % days 1) 1.5 (1.9) N=10 2) 1.5 (2.0) N=10 3) 1.7 (2.8) N=10 p=NR Within group over time: 1) $r \geq 0.2$ clinically meaningful 2) $r \geq 0.2$ clinically meaningful 3) $r$ =negligible Paired contrasts: 1) vs. 3) negligible 2) vs. 3) negligible 1) vs. 2) negligible	TLFB –SV M-to-F, % days 1) 1.4 (1.7) N=10 2) 1.4 (2.2) N=10 3) 1.8 (2.5) N=10 p=NR Within group over time: 1) $r \geq 0.2$ clinically meaningful 2) $r \geq 0.2$ clinically meaningful 3) $r$ =negligible Paired contrasts: 1) vs. 3) negligible 2) vs. 3) negligible 1) vs. 2) negligible
<b>CONFLICT</b>				
Fals-Stewart, 1996, <sup>74</sup> 2000, <sup>84</sup> 2002 <sup>85</sup> 1) BCT 2) IBT	Response to conflict scale 1) 112.4 (30.8) 2) 107.6 (27.3) p=NR	Response to conflict scale 1) 79.8 (26.1) 2) 102.3 (26.9) p=ns	Response to conflict scale 1) 106.4 (30.0) 2) 103.4 (27.2) p=ns	Response to conflict scale 1) 106.9 (27.7) 2) 103.9 (21.9) p=ns
Miller, 1999 <sup>81</sup> 1) CRAFT 2) Johnson Institute 3) Al-Anon ITT	SO's report of Family Environment Scale – Family Conflict 1) 3.4 (2.5) 2) 3.6 (2.0) 3) 3.5 (2.5) p=ns	SO's report of Family Environment Scale – Family Conflict 1) 2.7 (2.4) 2) 2.8 (1.9) 3) 3.2 (2.3) p=ns	SO's report of Family Environment Scale – Family Conflict 1) 2.5 (2.1) 2) 2.9 (2.3) 3) 2.8 (2.4) p=ns	

Outcomes reported as mean (standard deviation) unless otherwise noted.

Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.

Measures listed in the study descriptive tables but not reported here if either 1) the authors did not report findings from these measures or 2) they did not test for differences between conditions on these measures.

ns = not significant (at 5% level); NR = not reported; N/A = not applicable; tx = treatment; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach.

BCT = Behavioral Couples Therapy; BFT = Behavioral Family Therapy ; ICBT = Individual Couple Behavioral Therapy; IBT = Individual Based Treatment; ICT = Individual Couple Therapy;; BFT=Behavioral Family Counseling; BBCT = Brief Behavioral Couples Therapy; S-BFT=Standard Behavioral Couples Therapy; BMT = Behavioral Marital Therapy; BRT = Brief Relationship Therapy; PACT= Psychoeducational Attention Control Treatment; FSO = family member/significant other ; PSBCT = Parent Skills with Behavioral Couples Therapy; ABMT = Alcohol Focused Behavioral Marital Therapy; AA= Alcoholics Anonymous; AA/Al-Anon; RP = Relapse prevention; ABCT= Alcohol Behavior Couples Therapy; ABIT = Alcohol Behavior Individual Therapy; CRAFT = Community Reinforcement and Family Training; ACQ = Area of Change Questionnaire; ASI = Addiction Severity Index; DAS= dyadic adjustment scale; TLFB-SV = Time Line Follow Back Interview , Spousal Violence; M-to-F= male to female; FES = Family Environment Scale; CBQ = Couples Behaviors Questionnaire, RHS = Relationship Happiness Scale; SO = Significant Other

**Table 4. Intermediate Outcomes – Substance Abuse Studies**

Study, Year Interventions Sample	Outcome Post-Treatment <sup>1</sup>
<b>ATTENDANCE</b>	
Carroll, 2001 <sup>77</sup> 1) Significant Other+Contingency Management+Naltrexone 2) Contingency Management+Naltrexone 3) Naltrexone	# weeks in therapy 1) 7.4 (5.1); 2) 7.4 (4.4); 3) 5.6 (4.5) 1) vs. 2) ns <b>1) &amp; 2) vs. 3) p=0.05</b>
Fals-Stewart, 1996 <sup>66</sup> 1) Behavioral Couples Therapy 2) Individual Based Treatment	# sessions attended 1) 42.9 (13.2); 2) 42.5 (12.2) p=ns
Fals-Stewart, 2001 <sup>67</sup> 1) Behavioral Couples Therapy 2) Individual based methadone maintenance ITT	Session attendance 1) 20.3 (4.2) N=21; 2) 19.6 (5.4) N=22 p=ns
Fals-Stewart, 2003 <sup>68</sup> 1) Naltrexone+Brief Family Treatment 2) Naltrexone+Individual Based Treatment	# sessions attended <b>1) 34.2 (14.9); 2) 26.5 (15.2)</b> <b>p&lt;0.05</b>
Fals-Stewart, 2005 <sup>69</sup> 1) Brief Relationship Therapy 2) Standard Behavioral Couples Therapy 3) Individual Based Treatment 4) Psychoeducational Attention Control Treatment	# sessions attended 1) 0.8 (0.2); 2) 0.8 (0.2); 3) 0.9 (0.2); 4) 0.8 (0.2) p=ns
Fals-Stewart, 2006 <sup>74</sup> 1) Standard Behavioral Couples Therapy 2) Individual Based Treatment 3) Psychoeducational Attention Control Treatment	# sessions attended 1) 23.9 (4.0); 2) 25.6 (4.1); 3) 23.6 (4.8) p=ns
	#emergency sessions attended 1) 1.1 (2.0); 2) 1.0 (0.8); 3) 1.2 (1.3) p=ns
Fals-Stewart, 2008 <sup>78</sup> 1) Brief Behavioral Couples Therapy 2) Behavioral Couples Therapy 3) Individual Based Treatment 4) Psychoeducational Attention Control Treatment	#sessions attended 1) 0.8 (0.2); 2) 0.8 (0.2); 3) 0.8 (0.2); 4) 0.8 (0.2) p=ns
Fals-Stewart, 2009 <sup>79</sup> 1) Behavioral Couples Therapy 2) Individual Based Treatment	# sessions attended (men) 1) 24.3 (3.6); 2) 23.0 (3.0) p=ns
	# sessions attended (women) 1) 22.7 (4.9); 2) 24.9 (5.1) p=ns
Kelley, 2002 <sup>63</sup> 1) Behavioral Couples Therapy 2) Individual Based Treatment 3) Psychoeducational Attention Control Treatment ITT	# of sessions (alcohol-abusing pts) 1) 23.7 (4.2) N=25; 2) 22.8 (4.0) N=22; 3) 23.0 (4.2) N=24 p=ns
	# of sessions (drug-abusing pts) 1) 22.4 (5.7) N=22; 2) 22.9 (5.1) N=22 3) 22.6 (4.0) N=21 p=ns
Kirby, 1999 <sup>80</sup> 1) Community Reinforcement Training Intervention 2) Self Help	# weeks for FSO <b>1) 8.6; 2) 5.2</b> <b>p&lt;0.001</b>
	% FSOs completing therapy <b>1) 85.7%; 2) 38.8%</b> <b>p&lt;0.01</b>

<b>Study, Year Interventions Sample</b>	<b>Outcome Post-Treatment<sup>1</sup></b>
Lam, 2009 <sup>71</sup> 1) Parent Skills Behavioral Couples Therapy 2) Behavioral Couples Therapy 3) Individual Based Treatment	Attendance rates 1) 84%; 2) 86%; 3) 83% p=ns
McCrady, 1996, <sup>72</sup> 1999 <sup>86</sup> 1) Alcohol Focused Spouse Involvement+ Behavioral Marital Therapy 2) Alcohol Focused Spouse Involvement+ Behavioral Marital Therapy+AA/Al-Anon 3) Alcohol Focused Spouse Involvement+ Behavioral Marital Therapy+Relapse Prevention	# therapy sessions attended (patients) 1) 10.5 (6.0) N=30; 2) 10.6 (5.8) N=31 3) 11.1 (5.7) N=29 p=ns # patients who dropped therapy (≤5 session) 1) 26.7 N=8; 2) 22.6 N=7; 3) 24.1 N=7 p=ns # therapy sessions attended (couples) 1) 10.4 (5.9) N=15; 2) 10.6 (5.8) N=14; 3) 11.1 (5.7) N=16 p=ns # days in therapy attended (couples) 1) 155.9 (42.5) N=15; 2) 145.9 (42.7) N=14; 3) 172.8 (44.3) N=16 p=ns
McCrady, 2009 <sup>75</sup> 1) Alcohol Behavioral Couples Therapy 2) Alcohol Behavior Individual Therapy <i>Completers</i>	% attended all sessions <b>1) 24%; 2) 44%</b> <b>p&lt;0.05</b> # sessions attended 1) 12.4 (6.4); 2) 14.9 (6.5) p=0.05
Miller, 1999 <sup>81</sup> 1) Community Reinforcement and Family Training 2) Johnson Institute 3) Al-Anon	Session attendance by SOs (mean ##sessions, %) 1) 10.7/12 (89%); 2) 3.2/6 (53%); 3) 11.4/12 (95%) p=NR
O'Farrell, 2010 <sup>82</sup> 1) Behavioral Family Counseling +Individual Based Treatment 2) Individual Based Treatment <i>ITT</i>	Session attendance <b>1) 17.1 (6.7); 2) 12.0 (6.3)</b> <b>p=0.05</b>
Winters, 2002 <sup>76</sup> 1) Behavioral Couples Therapy+Individual Behavioral Therapy 2) Individual Couple Behavioral Therapy <i>ITT</i>	Session attendance 1) 39.5 (10.6); 2) 38.4 (12.2) p=ns
<b>ADHERENCE</b>	
Carroll, 2001 <sup>77</sup> 1) Significant other +contingency management+Naltrexone 2) Contingency management+Naltrexone 3) Naltrexone	# doses in therapy 1) 19.4(15.4); 2) 17.8 (13.4); 3) 14.2 (12.4) 1) vs. 2) = ns 1) & 2) vs. 3) = ns
Fals-Stewart, 2003 <sup>68</sup> 1) Naltrexone+Brief Family Treatment 2) Naltrexone+Individual Based Treatment	# days on Naltrexone <b>1) 102.6 (41.3); 2) 79.4 (46.3)</b> <b>p&lt;0.01</b>
McCrady, 1996, <sup>72</sup> 1999 <sup>86</sup> 1) Alcohol Focused Spouse Involvement+ Behavioral Marital Therapy 2) Alcohol Focused Spouse Involvement+ Behavioral Marital Therapy+AA/Al-Anon 3) Alcohol Focused Spouse Involvement+ Behavioral Marital Therapy+Relapse Prevention	% homework completed 1) 76.9%; 2) 66.4%; 3) 66.7% p=ns
McCrady, 2009 <sup>75</sup> 1) Alcohol Behavioral Couples Therapy 2) Alcohol Behavior Individual Therapy <i>Completers</i>	% homework completed (among treatment completers) 1) 72.8% (16.6); 2) 73.7% (24.2) p=NR

<b>Study, Year Interventions Sample</b>	<b>Outcome Post-Treatment<sup>1</sup></b>
O'Farrell, 1998a <sup>4</sup> 1) Behavioral Marital Therapy + Relapse Prevention 2) Behavioral Marital Therapy	Couples Behaviors Questionnaire (participation in Antabuse contract learned in BMT), averaged across the dyad <u>Post-treatment</u> 1) 4.2 (1.2); 2) 4.5 (0.8) p = NR <u>Short-term Follow-up (6 months)</u> 1) 2.9 (1.8); 2) 1.6 (1.9) <b>p=0.008</b> <u>Long-term Follow-up (12 months)</u> 1) 2.0 (2.0); 2) 0.8 (1.2) <b>p=0.004</b> <u>Final Follow-up (30 months)</u> 1) 0.9 (1.6); 2) 0.4 (0.8) p=ns
<b>SATISFACTION WITH CARE</b>	
Fals-Stewart, 1996 <sup>66</sup> 1) Behavioral Couples Therapy 2) Individual Based Treatment	Client Satisfaction Questionnaire 1) 25.3 (5.2); 2) 26.4 (6.0) p=ns
Fals-Stewart, 2001 <sup>67</sup> 1) Behavioral Couples Therapy 2) Individual based methadone maintenance ITT	Client Satisfaction Questionnaire 1) 27.9 (6.4) N=21; 2) 25.5 (6.7) N=22 p=ns
Fals-Stewart, 2003 <sup>68</sup> 1) Naltrexone+Brief Family Treatment 2) Naltrexone+Individual Based Treatment	Client Satisfaction Questionnaire-8 1) 23.2 (3.8); 2) 24.4 (4.0) p=ns
Fals-Stewart, 2005 <sup>69</sup> 1) Brief Relationship Therapy 2) Standard Behavioral Couples Therapy 3) Individual Based Treatment 4) Psychoeducational Attention Control Treatment	Client Satisfaction Questionnaire-8 1) 24.7 (2.9); 2) 26.2 (3.9); 3) 24.1 (4.1); 4) 24.0 (4.0) p=ns
Fals-Stewart, 2006 <sup>74</sup> 1) Behavioral Couples Therapy 2) Individual Based Treatment 3) Psychoeducational Attention Control Treatment	Client Satisfaction Questionnaire 1) 24.3 (4.5); 2) 25.0 (5.2); 3) 23.0 (6.4) p=ns
Fals-Stewart, 2008 <sup>78</sup> 1) Brief Behavioral Couples Therapy 2) Behavioral Couples Therapy 3) Individual Based Treatment 4) Psychoeducational Attention Control Treatment	Client Satisfaction Questionnaire-8 1) 23.8 (4.0); 2) 24.3 (4.1); 3) 25.0 (4.4); 4) 23.1 (4.6) p=ns
Fals-Stewart, 2009 <sup>79</sup> 1) Behavioral Couples Therapy 2) Individual Based Treatment	Client Satisfaction Questionnaire-8 (Men) 1) 23.74 (3.91); 2) 24.00 (4.12) p=ns
	Client Satisfaction Questionnaire-8 (Women) 1) 22.9 (4.5); 2) 24.0 (4.9) p=ns
Winters, 2002 <sup>76</sup> 1) Behavioral Couples Therapy+ Individual Behavioral Therapy 2) Individual Couple Behavioral Therapy ITT	Client Satisfaction Questionnaire 1) 24.1 (3.7); 2) 22.9 (4.4) p=ns

Outcomes reported as mean (standard deviation) unless otherwise noted.

ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers;

ITT = findings for analyses using an intent-to-treat approach.

<sup>1</sup>Outcomes are reported post-treatment, unless otherwise noted.



Table 5. Study Descriptive Information - Bipolar Disorder Studies

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
Clarkin, 1998 <sup>94</sup> Government, Foundation	N = 46 randomized N = 33 analyzed <u>Gender</u> : 54% male <u>Age</u> : 47.7 years <u>Race/ethnicity</u> : NR <u>Marital status</u> : NR <u>Education</u> : NR  Veterans: NR  <i>Family Characteristics</i> : significant other of opposite sex  <i>Recruitment Method</i> : patients consecutively admitted to inpatient and outpatient services were considered for inclusion	<u>MH Condition</u> : major affective disorder or bipolar disorder, manic, depressed, or mixed <u>Assessed by</u> : Interview using Schedule for Affective Disorders and Schizophrenia <u>SO</u> : spouse or partner of opposite sex, married or living together ≥ 6 months <u>Inclusions</u> : 21 to 65 years old; admission diagnosis of major affective disorder or bipolar disorder, manic, depressed, or mixed; married or living with significant other of opposite sex ≥ 6 months <u>Exclusions</u> : organic brain syndrome, current primary diagnosis of alcohol or drug abuse, pregnancy, contraindications to use of lithium or carbamazepine	1) Medical manage- ment + marital inter- vention (N=18)  2) Medical manage- ment only (N=15)  <u>Randomized</u> : N=46  <u>Analysis</u> : Baseline: N = 33 Post-treatment (Final 11 months): N=33	<u>Format</u> : marital therapy <u>Manualized</u> : Yes <u>Session</u> : 25 (one weekly for first 10; then bimonthly) <u>Text Length</u> : 11 months <u>Approach</u> : psychoeduca- tional  NOTE: all patients received standardized medications in each of 3 classes: mood stabilizers, antidepressants, and antipsychotics	<u>Patient Outcomes</u> : Symptoms a. SADS-C  Functioning a. Global Assessment Scale  <u>Intermediate Outcomes</u> : a. Medication Adherence using study developed scale (1-6 rating, poor to excellent)  <u>Family Outcomes</u> : None  <u>Outcome timeframe</u> : Baseline Post-treatment (Final): 11months	<u>Allocation concealment</u> : Unclear  <u>Blinding</u> : Unclear  <u>Intention to treat analysis</u> : No  <u>Withdrawals adequately described</u> : No  <u>Treatment Integrity</u> : audio tapes of marital intervention sessions were sampled for adherence to procedures outlined in manual  <u>Study Quality</u> : Poor

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
Miklowitz, 2000 <sup>90</sup>  Government, Foundation	N = 101 randomized N = 79 analyzed Gender: 37% male Age: 35.6 yrs Race/ethnicity: White 84% Marital Status: 55% married or cohabiting Education: NR  Veterans: NR  <i>Family Characteristics:</i> 37% parents, 55% spouses, 7% siblings, 1% adult offspring  <i>Recruitment Method:</i> Recruited from 4 psy- chiatric inpatient units or referred to study as outpatients.	<u>MH Condition:</u> Bipolar I disorder, manic, mixed, or depression <u>Assessed by:</u> Structured Clinical Interview for DSM-III-R <u>SO:</u> "close relatives" including parents, spouses, siblings <u>Inclusions:</u> DSM-II-R diagnosis of bipolar I disorder, manic, mixed, or depressed episode in previous 3 months; age 18-60 yrs; no neurologic disorder or developmental disability; no DSM- III-R drug or alcohol disorders in previous 6 months; living with or in regular contact (4+ hrs/ wk) with close relative; willing to commit to pharmacotherapy with mood stabilizers or antipsychotic medications; English speaking; patient and relative willing to consent <u>Exclusions:</u> no additional criteria reported	1) Family-focused treatment with pharma- cotherapy (N=31)  2) Crisis management with pharmacotherapy (N=70) ("treatment as usual" condition with 2 home-based family education sessions, emergency counseling as needed, minimum of monthly telephone call to monitor status)  Randomized: N=101  Analysis: Baseline: N=101 Long term (Final): 12 months: N=79	<u>Format:</u> Family-focused (family or marital) <u>Manualized:</u> Yes <u>Session:</u> up to 21 sessions, 1 hour, in the family's home <u>Text Length:</u> 9 months <u>Approach:</u> psychoeduca- tion, communication skills, problem definition and solu- tion	<u>Patient Outcomes:</u> Symptoms a. SADS-C b. Relapse c. Survival  <u>Intermediate Outcomes:</u> a. Medication Compliance  <u>Family Outcomes:</u> None  <u>Outcome timeframe:</u> Baseline Long Term (Final): 12 months	<u>Allocation concealment:</u> Unclear  <u>Blinding:</u> Yes (medication intensity and compliance ratings)  <u>Intention to treat analysis:</u> No  <u>Withdrawals adequately described:</u> Yes  <u>Treatment Integrity:</u> audio tapes reviewed for adherence  <b><u>Study quality:</u> Good</b>
Miklowitz, 2003 <sup>5</sup>  Government, Foundation	Same as Miklowitz 2000 <sup>90</sup>	Same as Miklowitz 2000 <sup>90</sup> <u>MH Condition:</u> <u>Assessed by:</u> <u>SO:</u> <u>Inclusions:</u> <u>Exclusions:</u> Same as Miklowitz 2000 <sup>90</sup>	Same as Miklowitz 2000 <sup>90</sup> 1) Family-focused treatment with pharma- cotherapy (N = 22 completed 2 years)  2) Crisis management with pharmacotherapy (N = 43 completed 2 years)	Same as Miklowitz 2000 <sup>90</sup>	Same as Miklowitz 2000 <sup>90</sup>  2 year outcomes	Same as Miklowitz 2000 <sup>90</sup>

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
<p>Miklowitz, 2007<sup>92</sup></p> <p>Government</p> <p>All patients were enrolled in Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD) study</p> <p>NOTE: included patients in 26-wk trial of mood stabilizer + placebo or mood stabilizer + antidepressant (RAD) and willing to be randomized to psychosocial treatment; initiated study (PAD) with patients ineligible for pharmacotherapy trial due to previous poor response to agents</p>	<p>N = 293 randomized N = 293 analyzed Gender: 41% male Age: 40.1 yrs Race/ethnicity: Caucasian 94% African American 4% Native American &lt;1% Asian/Pacific Islander 1% Other 1% Marital Status: Married 33% Unmarried 37% Separated 31%</p> <p>Veterans: NR</p> <p><i>Family Characteristics:</i> Not specified – “typically spouses, parents, or siblings”</p> <p><i>Recruitment Method:</i> Referrals from Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD)</p>	<p><u>MH Condition:</u> Bipolar I or II disorder and current major depressive episode <u>Assessed by:</u> Structural Clinical Interview for DSM-IV and Mini-International Neuropsychiatric Interview <u>SO:</u> Family members <u>Inclusions:</u> 18+ years; DSM-IV criteria for current bipolar I or II disorder and a current major depressive episode; current treatment with mood stabilizer or willing to start treatment; no current psychotherapy (or willing to discontinue or taper); English speaking, able to consent <u>Exclusions:</u> require immediate treatment for DSM-IV substance or alcohol abuse or dependence disorder (except nicotine); pregnant or planned pregnancy in next yr; history of intolerance, nonresponse, or medical contraindication to paroxetine or bupropion; required initiation or dose changes of antipsychotic medications</p>	<p>1) Family-focused treatment (FFT)* (N=26)</p> <p>2) Interpersonal and social rhythm therapy (IPSRT) (N=62)</p> <p>3) Cognitive behavior therapy (CBT) (N=75)</p> <p>4) Collaborative care (CC) – control group (N=130)</p> <p>NOTE: All patients received pharmacotherapy</p> <p>*Assignment to FFT possible only if willing family members</p> <p>Randomized: N=293</p> <p>Analysis: Baseline: N=293 Long term (Final): 12 months: N=293</p>	<p>1) <u>Format:</u> FFT <u>Manualized:</u> Yes <u>Session:</u> up to 30 50-min sessions <u>Txt Length:</u> 9 months <u>Approach:</u> psychoeducation, communication enhancement, problem solving</p> <p>2) <u>Format:</u> IPSRT <u>Manualized:</u> Yes <u>Session:</u> up to 30 50-min sessions <u>Txt Length:</u> 9 months <u>Approach:</u> Social Rhythm Metric for stable social rhythms, problem resolution, rehearsed strategies</p> <p>3) <u>Format:</u> CBT <u>Manualized:</u> Yes <u>Session:</u> up to 30 50-min individual sessions <u>Txt Length:</u> 9 months <u>Approach:</u> psychoeducation, life events scheduling, cognitive restructuring, problem-solving, detection and intervention for mood episodes, interventions for comorbidities</p> <p>4) <u>Format:</u> CC <u>Manualized:</u> Yes <u>Session:</u> 3 50-min individual sessions <u>Txt Length:</u> 6 weeks <u>Approach:</u> psychoeducation</p>	<p><u>Patient Outcomes:</u> 1) Recovery 2) Time to recovery Clinical Monitoring Form - depression and mania items used to define recovery (≤2 moderate symptoms for ≥8 of the previous weeks) and compute time to recovery and total time in recovery over 1 year of observation</p> <p><u>Intermediate Outcomes:</u> Attendance</p> <p><u>Family Outcomes:</u> None</p> <p><u>Outcome timeframe:</u> Baseline Long Term (Final): 12 months</p>	<p><u>Allocation concealment:</u> Unclear</p> <p><u>Blinding:</u> unclear</p> <p><u>Intention to treat analysis:</u> Yes</p> <p><u>Withdrawals adequately described:</u> Yes</p> <p><u>Treatment Integrity:</u> audio tapes rated for adherence to treatment</p> <p><b><u>Study quality:</u> Good</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
Miklowitz, 2007 <sup>95</sup>  NOTE: Data from subset of patients from Miklowitz 2007 with baseline assessment with LIFE-RIFT) tool	N = 152 <u>Gender:</u> 41 % male <u>Age:</u> 41.1 yrs <u>Race/ethnicity:</u> White 95% <u>Marital Status:</u> Married 31% Unmarried 37% Separated 32%  Veterans: NR  <i>Family Characteristics:</i> Husbands Children:	Same as Miklowitz 2007 <sup>92</sup>  <u>MH Condition:</u> <u>Assessed by:</u> <u>SO:</u> <u>Inclusions:</u> <u>Exclusions:</u>	1) Psychosocial Treat- ment (combined FFT, IPSRT, and CBT groups) (N=84)  2) Collaborative Care (CC) (N=68 )	Same as Miklowitz 2007 <sup>92</sup>	<u>Patient Outcomes:</u> a. Functioning (LIFE-RIFT total score)  <u>Intermediate Outcomes:</u> None  <u>Family Outcomes:</u> a. Relationship functioning & satisfaction domains (LIFE-RIFT)  <u>Outcome timeframe:</u> Baseline Long term (Final): 9 months	Same as Miklowitz 2007 <sup>92</sup>
Miller, 2004 <sup>89</sup>  Government	N = 92 randomized N = 92 analyzed <u>Gender:</u> 43% male <u>Age:</u> 39 years <u>Race/ethnicity:</u> NR <u>Marital Status:</u> Married 67% Never married 15% Separated/divorced/ Widowed 18% <u>Education (years):</u> 13  Veterans: NR  <i>Family Characteristics:</i> Spouses 62% Parents 17% Other adults 21%  <i>Recruitment Method:</i> In- patients, partial hospital patients, and outpatients from a university-affiliat- ed psychiatry clinic	<u>MH Condition:</u> Bipolar I disorder mood episode (mania, major depression, or mixed) <u>Assessed by:</u> Structured Clinical Instrument for DSM-III-R-Patient Version <u>SO:</u> patient and family members <u>Inclusions:</u> current bipolar I disorder mood episode; no DSM- III-R alcohol or drug dependence within 12 months of enrollment; age 18-65 yrs; living with or in regular contact with relative or significant other; English speaking <u>Exclusions:</u> no additional criteria reported	1) Pharmacotherapy + family therapy (N=33) 2) Pharmacotherapy + multifamily psychoedu- cational group (MFG) therapy (N=30) 3) Pharmacotherapy alone (N=29)  Randomized: N=92  Analysis: Baseline: N=92 Long term (Final): 28 months: N=92	1) <u>Format:</u> Family therapy <u>Manualized:</u> Yes <u>Session:</u> 6 to 10 50-min sessions <u>Text Length:</u> NR* <u>Approach:</u> Problem Centered Systems Therapy of the Family 2) <u>Format:</u> MFG therapy (4-6 patients and family members > 12 yrs) <u>Manualized:</u> Yes <u>Session:</u> 6 90-min ses- sions <u>Text Length:</u> 6 weeks* <u>Approach:</u> Psychoeduca- tional 3) <u>Format:</u> Pharmaco- therapy <u>Manualized:</u> Yes <u>Session:</u> weekly for 1 mo then every 3 months <u>Text Length:</u> NR* <u>Approach:</u> medication ad- justment, support, encour- agement	<u>Patient Outcomes:</u> Symptoms a. Recovery (defined as 2 consecutive months scores of <7 on HAM-D and <6 on BRMS)  <u>Intermediate Outcomes:</u> a. Pharmaco- therapy sessions attended  <u>Family Outcomes:</u> None  <u>Outcome timeframe:</u> Baseline Long Term (Final): 28 months	<u>Allocation concealment:</u> Unclear  <u>Blinding:</u> Yes (rating of pharmacotherapy)  <u>Intention to treat analysis:</u> Yes  <u>Withdrawals adequately described:</u> No  <u>Treatment Integrity:</u> Treatments monitored and evaluated at weekly meetings of study clinicians and investigators  <u>Study Quality:</u> Fair

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
Miller, 2008 <sup>98</sup>  Funding source not reported <sup>c</sup>	<p>N = 91*</p> <p><u>Gender</u>: 57% male</p> <p><u>Age</u>: 39.5 years</p> <p><u>Race/ethnicity</u>: NR</p> <p><u>Marital Status</u>: NR</p> <p><u>Education</u>: NR</p> <p>Veterans: NR</p> <p><i>Family Characteristics</i>: NR for this analysis</p> <p>*One family did not complete MCRS at baseline</p> <p><i>Recruitment Method</i>: Inpatients, partial hospital patients, and outpatients from a university-affiliated psychiatry clinic (96% while hospitalized)</p>	<p>Same as Miller 2004<sup>89</sup></p> <p>Analysis using proportional measures of long-term course of illness and based on level of family impairment according to McMaster Clinical Rating Scale (MCRS)</p> <p><u>Additional Exclusions reported</u>: DSM-III-R for alcohol/drug dependence in the last year; mood disorder secondary to a general medical condition; illness that contraindicates mood stabilizer use; pregnant, or not using contraception.</p>	<p>Same as Miller 2004<sup>89</sup></p> <p>Baseline N = 91</p> <p>High impairment: N = 60 (66%)</p> <p>Low impairment N = 31 (34%)</p> <p>Final (28 months) N= 82</p> <p>High impairment: N = 55 (67%)</p> <p>Low impairment N = 27 (33%)</p>	<p>Same as Miller 2004<sup>89</sup> except indicates target was 10-15 family-therapy sessions (vs. 6-10)</p>	<p><u>Patient Outcomes</u>:</p> <p>a. Recovery/ relapse (% who recovered and relapsed based on HAM-D and BRMS for high and low family impairment subgroups)</p> <p><u>Intermediate Outcomes</u>: None</p> <p><u>Family Outcomes</u>: None</p> <p><u>Outcome timeframe</u>: Baseline Long Term (Final): 28 months</p>	<p>Same as Miller 2004<sup>89</sup></p>

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
Perlick, 2010 <sup>93</sup> Government	<p><u>Patients:</u> N = 46  <u>Gender:</u> 37% male  <u>Age:</u> 34.7  <u>Race/ethnicity:</u>  Caucasian 75%  African American 7.5%  Hispanic 17.5%  <u>Marital Status:</u>  Married/cohabiting 15%  Widowed/divorced/  separated 30%  Never married 55%</p> <p>Veterans: 2 caregivers  from VA Medical Center</p> <p><u>Caregivers:</u> N = 46  <u>Gender:</u> 16% male  <u>Age:</u> 52.8 yrs  <u>Race/ethnicity:</u>  Caucasian 77%  African American 5%  Hispanic 16%  Other 2%  <u>Marital Status:</u>  Married/cohabiting 44%  Widowed/ divorced/  separated 33%  Never married 23%  <u>Family Characteristics:</u>  Parents 70%; Spouse  or SO 14%; Adult child  14%; Friend or neighbor  2%  <u>Recruitment Method:</u>  Referred by mental  health clinicians</p>	<p><u>MH Condition:</u> Bipolar I or II  disorder  <u>Assessed by:</u> Structured Clinical  Interview for DSM-IV Axis I  Disorders  <u>SO:</u> Caregiver  <u>Inclusions:</u> age 18+; primary  caregiver of relative with bipolar  I or II; meet at least 3 (2 for non-  relatives) criteria: a) spouse or  parent, b) more frequent contact  than any other caregiver, c) helps  support patient financially,  d) is contacted by treatment staff  for emergencies, e) involved  in patient's treatment; current  physical and mental health  problems  <u>Exclusions:</u> no additional criteria  reported</p>	<p>1) Family-Focused  Treatment-Health  Promoting Inter-  vention (FFT-HPI) (N=25  caregivers)</p> <p>2) Health education  (HE) (N=21 caregivers)</p> <p>NOTE: recruited  caregivers who were  primary caregiver of  relative with condition</p> <p>Randomized:  N = 46 caregivers of  46 patients</p> <p>Analysis:  Baseline: N=43 care-  givers of 40 patients  Post-treatment (Final):  5 months:  N = 43 caregivers of  40 patients</p>	<p>1) <u>Format:</u> Family focused  (but only the caregiver was  involved)  <u>Manualized:</u> Yes  <u>Session:</u> 12-15 sessions  <u>Text Length:</u> approx 5  months  <u>Approach:</u> Psychoedu-  cation and goal setting,  behavioral analysis of self-  care barriers</p> <p>2) <u>Format:</u> Individual (via  DVD)  <u>Manualized:</u>  <u>Session:</u> 8-12 sessions via  DVD  <u>Text Length:</u> approx 5  months  <u>Approach:</u> health educa-  tion</p>	<p><u>Patient Outcomes:</u>  <u>Symptom  Improvement</u>  a. HAM-D  b. YMRS</p> <p><u>Intermediate  Outcomes:</u> None</p> <p><u>Family Outcomes:</u>  None</p> <p><u>Outcome timeframe:</u>  Baseline  Post-treatment  (Final): 5 months</p>	<p><u>Allocation  concealment:</u> Yes</p> <p><u>Blinding:</u> Yes  (assessor and  participants during  administration  of the initial  assessment; post-  test assessment)</p> <p><u>Intention to treat  analysis:</u> No</p> <p><u>Withdrawals  adequately  described:</u> No</p> <p><u>Treatment Integrity:</u>  Randomly  selected treatment  tapes rated for  competence and  adherence</p> <p><u>Study quality:</u>  Fair</p>

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
Rea, 2003 <sup>91</sup> Government	<p>N = 53 randomized N = 53 analyzed Gender: 43% male Age: 25.6 yrs <u>Race/ethnicity</u>: Caucasian 60% African American 23% Asian American 9% Other 9% <u>Marital Status</u>: Single 76% Married 15% Divorced 9%</p> <p>Veterans: NR</p> <p><i>Family Characteristics</i>: 74 family members (29 mothers, 22 fathers, 1 stepfather, 9 spouses, 7 siblings, 1 grandmother, 1 uncle, 4 aunts</p> <p><i>Recruitment Method</i>: inpatients in 3 large hospitals</p>	<p><u>MH Condition</u>: Bipolar disorder, manic type <u>Assessed by</u>: DSM-III-R with confirmation by Present State Examination (PSE) with supplementary mania items <u>SO</u>: "close family member"; 66% had one relative to participated, 34% had multiple relatives <u>Inclusions</u>: diagnosis of bipolar disorder, manic type; age 18-45, able to give consent, currently taking mood-regulating medications; at least one close family member available to participate <u>Exclusions</u>: evidence of organic central nervous system disorder or chronic alcohol or substance abuse/dependence</p>	<p>1) Family-focused treatment with pharmacotherapy (N=28)</p> <p>2) Individually focused patient treatment with pharmacotherapy (N=25)</p> <p>Randomized: N=53</p> <p>Analysis: Baseline: N=53 Post-treatment: N=53 Long term (Final): 24 months: N=29</p>	<p>1) <u>Format</u>: Family-focused or individual <u>Manualized</u>: Yes <u>Session</u>: 21 one-hour sessions over 9 months (medication management continued to 12 months) <u>Txt Length</u>: 12 months<sup>a</sup> <u>Approach</u>: psychoeducation, communication enhancement training, problem-solving training</p> <p>2) <u>Format</u>: Individually focused patient treatment <u>Manualized</u>: Not stated <u>Session</u>: 21 30-min sessions over 9 months (medication management continued to 12 months) <u>Txt Length</u>: 12 months<sup>a</sup> <u>Approach</u>: supportive, problem-focused, educational</p> <p><sup>a</sup>At 12 months, patients were referred to and assisted in transitioning to community providers</p>	<p><u>Patient Outcomes</u>: a. Relapse (based on BPRS and supplementary items from SADS-C) b. Rehospitalization (Patient and relative reports verified by inpatient records where possible)</p> <p><u>Intermediate Outcomes</u>: a. Medication Compliance (Psychiatrist-completed form)</p> <p><u>Family Outcomes</u>: None</p> <p><u>Outcome timeframe</u>: Baseline Post-treatment Long term (Final): 24 months</p>	<p><u>Allocation concealment</u>: Unclear</p> <p><u>Blinding</u>: Yes (outcomes)</p> <p><u>Intention to treat analysis</u>: No</p> <p><u>Withdrawals adequately described</u>: Yes</p> <p><u>Treatment Integrity</u>: Videotapes rated for therapist adherence and competence</p> <p><u>Study quality</u>: <b>Good</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
Solomon, 2008 <sup>97</sup> Government	<p>N = 53  <u>Gender</u>: 43% male  <u>Age</u>: 41 yrs  <u>Race/ethnicity</u>: NR  <u>Marital Status</u>: 66%  Married or living with partner 66%  Never married 19%,  Separated/divorced/  widowed 15%  <u>Education (years)</u>: 13</p> <p>Veterans: NR</p> <p><i>Family Characteristics</i>:  NR for subgroup</p> <p><i>Recruitment Method</i>:  Inpatients, partial  hospital patients, and  outpatients from a  university-affiliated  psychiatry clinic</p>	<p>Same as Miller 2004<sup>89</sup></p> <p>Analysis of recurrence of mood  episodes and hospitalizations for  53 subjects who recovered from  intake mood episode</p>	Same as Miller 2004 <sup>89</sup>	Same as Miller 2004 <sup>89</sup>	<p><u>Patient Outcomes</u>:  Symptoms:  a. Frequency of  mood episode  recurrence (based  on HAM-D&gt;15 or  BRMS&gt;5)  Utilization:  a. Hospitalization</p> <p><u>Intermediate  Outcomes</u>:  None</p> <p><u>Family Outcomes</u>:  None</p> <p><u>Outcome timeframe</u>:  Baseline  Long Term (Final):  28 months</p>	Same as Miller 2004 <sup>89</sup>

NR = not reported; SO = significant other or family member included; SADS-C = Schedule for Affective Disorders and Schizophrenia-Change Version; DSM = Diagnostic and Statistical Manual of Mental Disorders; tx = treatment; BRMS = Bech-Rafaelsen Mania Scale; HAM-D = Hamilton Depression Rating Scale; LIFE-RIFT = Longitudinal Interval Follow-Up Evaluation – Range of Impaired Functioning Tool; YMRS = Young Mania Rating Scale; DVD = digital video disk; BPRS = Brief Psychiatric Rating Scale

\*Study patients were treated on outpatient basis for up to 28 months



Table 6. Patient Outcomes - Bipolar Disorder Studies

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>SYMPTOM IMPROVEMENT</b>				
Clarkin, 1998 <sup>94</sup> 1) Medication management + marital intervention 2) Medication management only <i>Completers only</i>	SADS-C 1) 55.9 N=18 2) 62.0 N=15	SADS-C 1) 49.8 N=18 2) 54.8 N=15 p=ns for test of differences between treatment groups over time		
Miklowitz, 2000, <sup>90</sup> 2003 <sup>5</sup> (2 year results) 1) Family-focused with medication 2) Crisis mgmt with medication <i>Completers or ITT (as noted)</i>	SADS-C (Total affective symptoms) 1) 2.2 (0.6) N=28 2) 2.2 (0.6) N=51 <i>Completers only</i> p = NR	SADS-C 1) 1.9 (0.6) N=28 2) 2.2 (0.8) N=51 p = NR	SADS-C <b>1) 2.0 (0.7) N=28</b> <b>2) 2.2 (0.8) N=51</b> p = NR  p=ns for treatment <b>p=0.05 for test of differences between treatment groups over time at 12 months</b>	<b>p=0.007 for test of differences between treatment groups over time at 24 months (15 months post- treatment)</b>
			Relapse 1) 8/31 (26%) 2) 27/70 (39%) p=NR <i>ITT analysis</i>	
			Survival (no relapse) <b>1) 71%</b> <b>2) 47%</b> <b>p=0.04</b> <i>Drop-outs excluded</i>	
				Relapse (24 months or 15 months post- treatment) <b>1) 11/31 (35%) (3 patients terminated early)</b> <b>2) 38/70 (54%) (16 patients terminated early)</b> <b>p&lt;0.005</b> <i>ITT analysis</i>
Miklowitz, 2000, <sup>90</sup> 2003 <sup>5</sup> (2 year results) 1) Family-focused with medication 2) Crisis mgmt with medication <i>Completers or ITT (as noted)</i>				Mean survival without relapse (24 months or 15 months post-treatment) <b>1) 73.5 wks</b> <b>2) 53.2 wks</b> <b>Hazard Ratio=0.37</b> <b>(95%CI 0.19-0.72)</b> <i>ITT analysis</i>

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
Miklowitz, 2007, <sup>92</sup> 2007 <sup>95</sup> 1) Family-focused 2) Inter-personal and social rhythm therapy 3) CBT 4) Collaborative care <i>ITT analysis</i>			Recovery (based on SADS-C) <b>1) 20/26 (77%) (HR relative to 4 = 1.87)</b> 2) 40/62 (65%) (HR=1.48) 3) 45/75 (60%) (HR=1.34) <b>4) 67/130 (52%)</b> No differences 1, 2, 3 (1, 2, & 3 combined vs. 4, p=0.01) <b>1 vs 4, p=0.02</b> Confidence intervals not reported for HRs	
			Time to recovery (median among those who recovered, N=172) 1) 103 days 2) 128 days 3) 112 days 4) 146 days No differences 1, 2, 3	
			Recovery (in subsample with family availability, N=159) 1) 20/26 (77%) (HR=1.40) 2) 17/30 (57%) (HR=1.16) 3) 23/39 (59%) (HR=0.98) 4) 37/64 (58%) No differences 1, 2, 3 1 vs. 4, p=0.10	
Miller, 2004 <sup>89</sup> 1) Medication + Family Therapy (FT) 2) Medication + multiple-family group therapy (MFG) 3) Medication only <i>ITT analysis</i>				Recovery (2 consecutive months with BRMS < 6 and MHRSD < 7) 1) 16/33 (48%) 2) 21/30 (70%) 3) 16/29 (55%) p=0.21 ( <i>at 28 months – final</i> )
Miller, 2008 <sup>98</sup> 1) Medication + FT 2) Medication + MFG 3) Medication only <i>Stratify Miller 2004 results by degree of family impairment (N=82 with family impairment data; N=51 with impairment who recovered)</i>				Recovery Low family impairment (N=27) 1) 2/5 (40%) 2) 7/9 (78%) 3) 11/13 (85%) High family impairment (N=55) 1) 12/24 (50%) 2) 14/18 (78%) 3) 5/13 (39%) p=ns for main effects (family impairment or treatment condition) Interaction p=ns ( <i>at 28 months – final</i> )

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
				<p>Relapse after recovery Low family impairment (N=20) 1) 1/2 (50%) 2) 4/7 (57%) 3) 7/11 (64%) High family impairment (N=31) 1) 8/12 (67%) 2) 9/14 (64%) 3) 3/5 (60%) p=ns for main effects (family impairment or treatment condition) Interaction p=ns</p> <p><b>Significant (all <math>p &lt; 0.05</math>) family impairment by tx interaction for:</b>  <b>a) # depressive episodes/yr</b>  <b>b) % time in any mood episode</b>  <b>c) % time in depressive episode</b>  <b>High impairment families:</b>  <b>1) significant differences - MFG vs. medication only for a), b), and c)</b>  <b>2) significant difference between FT vs. medication only for a)</b>  <b>Low impairment families:</b>  <b>No difference between tx groups (at 28 months – final)</b></p>
Perlick, 2010 <sup>93</sup> 1) Family-focused, health promoting 2) Health education <i>Completers only</i>	HAM-D 1) 15.6 (10.3) N=22 2) 14.9 (5.7) N=18 p=0.26	HAM-D <b>1) 5.6 (6.1) N=22</b> <b>2) 11.2 (9.1) N=18</b> <b>p=0.025, d=0.67</b>		
	YMRS 1) 8.8 (9.7) N=22 2) 9.2 (9.2) N=18 p=0.15	YMRS <b>1) 1.6 (2.4) N=22</b> <b>2) 5.8 (9.0) N=18</b> <b>p=0.037, d=0.34</b>		

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
Rea, 2003 <sup>91</sup> 1) Family-focused with medication 2) Individual therapy with medication <i>ITT for active tx year, n=39 for post-treatment year.</i>		Relapse (% with at least 1 relapse based on BPRS and supplementary items from SADS-C) 1) 46% 2) 52% p>0.10 <b>Interaction with premorbid adjustment – family treatment reduced risk of relapse in patients with poorer premorbid adjustment, p=0.06</b>		Relapse (% with at least 1 relapse) <b>1) 28%</b> <b>2) 60%</b> <b>p&lt;0.05</b> Interaction with premorbid adjustment, p=ns
		Rehospitalization (% with at least 1 rehospitalization): 1) 29% 2) 40% p>0.10 Interaction with premorbid adjustment, p=ns		Rehospitalization <b>1) 12%</b> <b>2) 60%</b> <b>p&lt;0.01</b> <b>Interaction with premorbid adjustment, p&lt;0.03</b>
Solomon, 2008 <sup>97</sup> 1) Medication + FT 2) Medication + MFG 3) Medication only <i>Recurrence and hospitalization data for N=53 from Miller 2004 study who recovered</i>				Frequency of mood episode recurrence ( <i>MHRSD &gt; 15 or BRMS &gt; 5</i> ) 1) 11/16 (69%) 2) 13/21 (62%) 3) 10/16 (63%) p=0.90 (at 28 months – final)
<b>GLOBAL FUNCTIONING</b>				
Clarkin, 1998 <sup>94</sup> 1) Medication management + marital intervention 2) Medication management only <i>Completers only</i>	GAS 1) 64.4 N=18 2) 64.7 N=15	GAS <b>1) 73.0 N=18</b> <b>2) 65.7 N=15</b> <b>p&lt;0.03 (test of treatment group differences over time)</b>		
Miklowitz, 2007, <sup>92</sup> 2007 <sup>95</sup> 1) Family-focused 2) Inter-personal and social rhythm therapy 3) Cognitive Behavioral Therapy 4) Collaborative care <i>Completers only</i>		LIFE-RIFT Total Score Difference (9 month and baseline) 1) -3.2 (3.1) 2) -1.6 (4.4) 3) -1.1 (4.7) 4) -0.9 (3.5) 1, 2, & 3 combined vs. 4, p=0.04 <i>(more negative score = greater improvement)</i>		

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>HEALTH CARE UTILIZATION</b>				
Solomon, 2008 <sup>97</sup> 1) Medication + FT 2) Medication + MFG 3) Medication only <i>Recurrence and hospitalization data for N=53 from Miller 2004 study who recovered</i>				Hospitalization frequency <b>1) 5/16 (31%)</b> <b>2) 1/21 (5%)</b> <b>3) 6/16 (38%)</b> <b>p=0.04 (MFG significantly lower)</b> <i>(at 28 months – final)</i>

Outcomes reported as mean (standard deviation) unless otherwise noted.

Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.

ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach; BRMS = Bech-Rafaelsen Mania Scale; GAS = Global Assessment Scale; HAM-D = Hamilton Depression Rating Scale; HR = hazard ratio; LIFE-RIFT = Longitudinal Interval Follow-Up Evaluation – Range of Impaired Functioning Tool; MFG = multiple family group; MHRSD = Modified Hamilton Rating Scale for Depression; SADS-C = Schedule for Affective Disorders and Schizophrenia-Change Version

Table 7. Family Outcomes - Bipolar Disorder Studies

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>GLOBAL FUNCTIONING /SATISFACTION</b>				
Miklowitz 2007, <sup>92</sup> 2007 <sup>95</sup> 1) Family-focused 2) Inter-personal and social rhythm therapy 3) Cognitive Behavioral Therapy 4) Collaborative care <i>Completers only</i>		LIFE-RIFT Relationship Functioning Domain <i>Difference (9 month and baseline)</i> 1) -0.5 (1.6) 2) -0.3 (2.1) 3) -0.2 (1.3) 4) 0.1 (1.5) <b>1, 2, and 3 combined vs. 4, p=0.02</b> <i>(more negative score = greater improvement)</i>		
		LIFE-RIFT Satisfaction Domain <i>Difference (9 month and baseline)</i> 1) -0.9 (0.9) 2) -0.3 (1.4) 3) -0.1 (1.2) 4) 0.0 (1.3) <b>1, 2, and 3 combined vs. 4,p=0.048</b>		

Outcomes reported as mean (standard deviation) unless otherwise noted.

Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.

ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach; LIFE-RIFT = Longitudinal Interval Follow-Up Evaluation – Range of Impaired Functioning Tool

Table 8. Intermediate Outcomes - Bipolar Disorder Studies

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>ATTENDANCE</b>				
Miklowitz, 2007, <sup>92</sup> 2007 <sup>95</sup> (Am J Psychiatry) 1) Family-focused 2) Inter-personal and social rhythm therapy 3) Cognitive Behavioral Therapy 4) Collaborative care <i>ITT analysis</i>			Attendance <i>mean sessions/# of sessions</i> 1) 11.5/30 (38%) 2) 16.7/30 (56%) 3) 13.3/30 (44%) 4) 2.2/3 (73%) p=ns (1 vs. 2 vs. 3)	
Miller, 2004 <sup>89</sup> <i>ITT analysis</i> Solomon, 2008 <sup>97</sup> <i>N=53 who recovered</i> 1) Medication + Family Therapy (FT) 2) Medication + Multiple-Family Group Therapy 3) Medication only <i>ITT analysis</i>				Pharmacotherapy sessions attended ( <i>ITT analysis</i> ) 1) 15 (10) 2) 12 (8) 3) 12 (8) p=ns (at 28 months – final)
				Pharmacotherapy sessions attended ( <i>N=53 who recovered</i> ) 1) 20 (9) 2) 14 (7) 3) 16 (6) <b>p&lt;0.05 (group 1 vs. group 2)</b> (at 28 months – final)
<b>ADHERENCE</b>				
Clarkin, 1998 <sup>94</sup> 1) Medication management + marital intervention 2) Medication management only <i>Completers only</i>	Study designed med adherence scale 1) NR N=18 2) NR N=17 <i>scale of 1=poor, 6=excellent</i>	Study designed med adherence scale 1) <b>5.7 N=18</b> 2) <b>5.2 N=17</b> <b>p=0.008</b>		
Miklowitz, 2003 <sup>5</sup> 1) Family-focused with medication 2) Crisis mgmt with medication <i>Sample not reported</i>				1) 2.8 (0.4) 2) 2.6 (0.5) <b>p=0.04</b> <i>scale of 1=fully non-adherent, 3=fully adherent</i>

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
Rea, 2003 <sup>91</sup> 1) Family-focused with medication 2) Individual therapy with medication ITT analysis		Physicians' rating of medication compliance (7-point Likert-type scale) 1) 6.2 (1.6) 2) 5.6 (1.9) p=ns		

Outcomes reported as mean (standard deviation) unless otherwise noted.

Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.

ns= not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach

**Table 9. Study Descriptive Information - Schizophrenia Spectrum Disorder Studies**

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Dyck, 2002 <sup>102</sup>  Government	N = 106 <u>Gender:</u> 77% male <u>Age:</u> 32.7 years <u>Race/ethnicity:</u> NR <u>Marital Status:</u> Married: 13% Not reported 87% <u>Education:</u> NR  Veterans: NR  <u>Recruitment Method:</u> Enrolled from outpatients enrolled in community mental health services, but living in community.  <u>Family Characteristics:</u> NR	<u>MH Condition:</u> Schizophrenia or schizoaffective disorder  <u>Assessed by:</u> structured clinical interview for DSM-IV criteria diagnosis  <u>Inclusions:</u> In addition to diagnosis; age 18-45; enrolled in outpatient community mental health services in Spokane, WA, reside with family of origin, or have regular contact with family; family member and patient agree to consent; minimum attendance by one family member for at least five face to face contacts. [Subjects then stratified by medication status – atypical vs conventional antipsychotic use.]  <u>Family member or SO:</u> Any family member	1) Multiple Family Group (MFG) N=55  2) Standard Care (SC) N = 51  No statistical differences at baseline – frequency of substance abuse, use of atypical antipsychotics, or severity of positive or negative symptoms  <u>Analysis:</u> Baseline (pre and post): N=106	1) <u>Format:</u> Usual care + 1) three weekly sessions with clinicians and families (individually) without patient; 2) then a multiple family educational workshop (again without patient); then 3) bi-weekly multiple family group sessions with patient present. <u>Manualized:</u> Yes <u>Sessions:</u> NR 2 years <u>Approach:</u> multi-disciplinary; psychoeducational, develop a supportive network, formal problem solving techniques.  2) <u>Format:</u> Mental Health multidisciplinary treatment team delivered medication management, case management, some patients therapeutic and rehabilitation services. <u>Manualized:</u> N/A <u>Sessions:</u> N/A <u>Txt Length:</u> N/A <u>Approach:</u> Multidisciplinary	<u>Patient Outcomes:</u> Utilization: a. Hospitalization rate b. Crisis care used c. Outpatient service utilization  <u>Outcome timeframe:</u> Pre-treatment (year before baseline) During -treatment (1 year after baseline)	<u>Allocation concealment:</u> NR  <u>Blinding:</u> NR  <u>Intention to treat analysis:</u> Yes  <u>Withdrawals adequately described:</u> Yes  <u>Treatment integrity:</u> Study supervisors do systematic review of videotapes for engagement sessions and multiple family group settings; weekly phone consultations, and annual on-site visits.  <b><u>Study Quality:</u></b> <b>Good</b>



Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Dyck, 2000 <sup>101</sup>  Government  Note: this is the a subset of the study cohort of Dyck 2002 <sup>102</sup>	N = 63 <u>Gender:</u> 73% male <u>Age:</u> 33 years <u>Race/ethnicity:</u> White 95% Not white 5% <u>Marital Status:</u> NR  Veterans: NR	Same as Dyck, 2002 <sup>102</sup>	1) MFG N=32 2) SC N=31  <u>Analysis:</u> 1) MFG N=21 2) SC N=21 (42 participants that received treatment for full 12 months)	Same as Dyck, 2002 <sup>102</sup>	<u>Patient Outcomes:</u> Symptoms: a. MSANS  <u>Outcome timeframe:</u> Baseline During -treatment (1 year after baseline)	Same as Dyck, 2002 <sup>102</sup>
McDonnell, 2006 <sup>103</sup>  Government  Note: Same study as Dyck 2000 and 2002, but different N. These 97 also provided 1 year pre-randomization data.	N = 97 <u>Gender:</u> 76% male <u>Age:</u> 32.8 years <u>Race/ethnicity:</u> European American 90% Not European American 10% <u>Marital Status:</u> NR  Veterans: NR	Same as Dyck, 2002, <sup>102</sup> 2000 <sup>101</sup>	1) MFG N=53 2) SC N = 44  <u>Analysis:</u> Baseline: N=97 Final: N = 97	Same as Dyck, 2002, <sup>102</sup> 2000 <sup>101</sup>	<u>Patient Outcomes:</u> Utilization: a. Hospitalization rate (overall psychiatric, community, state, overall) b. Outpatient service utilization  <u>Outcome timeframe:</u> Pre-treatment (year before baseline) Post-treatment (2 years) Final (3 years post baseline, 1 year after post-treatment)	Same as Dyck, 2002, <sup>102</sup> 2000 <sup>101</sup>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
McFarlane, 1996 <sup>29</sup>  Government	<p>N = 68  <u>Gender</u>: 65% male  <u>Age</u>: 29.8 years  <u>Race/ethnicity</u>:  White 78%  Black 15%  Hispanic 6%  Not reported 1%  <u>Marital Status</u>:  Married 6%  Never Married 84%  Separated/divorced/  widowed 9%  Not reported 1%  <u>Education</u>: NR</p> <p>Veterans: NR</p> <p><u>Recruitment Method</u>:  Subjects selected during admission to inpatient service or acute partial hospital when receiving crisis services for acute psychotic episode.</p> <p><u>Family Characteristics</u>: NR</p>	<p><u>MH Condition</u>:  Schizophrenia or schizoaffective/  schizophreniform disorders  <u>Assessed by</u>: Structured clinical interview DSM-III-R criteria  <u>Inclusions</u>: In addition to diagnosis, subjects also needed to have one or more complicating factors: lack of consistent treatment participation; history of violence or suicidality, frequent hospitalization, homelessness, arrests/convictions, moderate to severe substance use; at least one family member required to participate and give informed consent.  <u>Family member or SO</u>: Any family member  <u>Exclusions</u>: Acutely violent or suicidal; major medical illness or physical addiction requiring immediate hospitalization (excluded only until subject was stabilized)</p>	<p>1) Multi-family group  N=37*</p> <p>2) Crisis only  N = 31*</p> <p>*Both groups are in Assertive community treatment (ACT); ACT consists of manualized program covering eight areas (includes family education and engagement); and one home visit.</p> <p><u>Analysis</u>:  Baseline: N=68  Post-treatment (2 years): N = 68</p> <p>Family outcomes only:  Baseline: N=46  Post-treatment (2 years): N = 46</p>	<p>1) <u>Format</u>: ACT + initial workshop for family only; then multi-family group meetings (6 families and patient is present)  <u>Manualized</u>: Yes  <u>Session</u>: every 2 wks  <u>Txt Length</u>: 2 years  <u>Approach</u>: Psychoeducational; Treatment decisions guided by group. Group provides social support, learn formal problem solving technique.</p> <p>2) <u>Format</u>: ACT + interaction between treatment team and family members only in crisis. No multi-family groups.  <u>Manualized</u>: Yes  <u>Session</u>: N/A  <u>Approach</u>: Psychoeducational</p>	<p><u>Patient Outcomes</u>  Global functioning:  a. Employment rates  Symptoms:  a. PANSS (positive, negative, general)  Health Care Utilization  a. Re-Hospitalization</p> <p><u>Family Outcomes</u>:  Global Functioning:  a. SAS-FV III  Dissatisfaction with patient  Friction between pt and others  Well being of family</p> <p><u>Outcome timeframe</u>:  Baseline  Post-treatment</p>	<p><u>Allocation concealment</u>: No</p> <p><u>Blinding</u>: NR</p> <p><u>Intention to treat analysis</u>: No, on family measures.</p> <p><u>Withdrawals adequately described</u>: No</p> <p><b><u>Study Quality</u>:  Fair</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Mueser, 2009 <sup>99</sup>  Government	<p>N = 108  Gender: 70% male  Age: 33.6 years  Marital Status:  Never married 63%  Ever married 37%  Race/ethnicity:  White 71%  Black 7%  Other 22%  Hispanic NR  Education:  Completed HS 62%  Did not complete HS 38%</p> <p>Veterans: NR</p> <p>Recruitment  Method:  Among patients receiving services at participating mental health agencies, potentially eligible subjects were approached for willingness to participate.</p> <p>Family  Characteristics: NR</p>	<p><u>MH condition:</u> Dual disorder; either schizophrenia, schizoaffective or bipolar disorder AND active substance use or dependence within past 6 months</p> <p><u>Assessed by:</u> Structured clinical interview DSM IV (for both)</p> <p><u>Family member or SO:</u> a relative, close friend, or other person with a 'caring but non-professional relationship' to subject (e.g. clergy)</p> <p><u>Inclusions:</u> In addition to diagnosis; ≥18 yrs old; ≥4 hours per week contact with the family member; diagnosis of active substance abuse or dependence within the past six months (based on SCID); subject currently receiving services at one of three mental health agencies participating in study</p> <p><u>Exclusions:</u>  None</p>	<p>1) FIDD - Family Intervention for Dual Disorders  N=52</p> <p>2) FPE – Family Psychoeducation  N = 56</p> <p><u>Analysis:</u>  ITT N=108 up to 36 months.</p>	<p>1) <u>Format:</u> Family member(s) and patient present  <u>Manualized:</u> NR  <u>Sessions:</u> 20–30 sessions, 1-1.5 hours  <u>Text Length:</u> 9-18 mos  <u>Approach:</u> Psycho educational/ behavioral family therapy; education, communication and problem solving, tailored strategies, encouraged attendance at multiple family support groups between end of treatment &amp; 36 months.</p> <p>2) <u>Format:</u> Family member and patient present  <u>Manualized:</u> NR  <u>Sessions:</u> 6-8, 1 hour  <u>Text Length:</u> 6-8 weeks  <u>Approach:</u> Psychoeducational; basic information about disorders and treatment; encouraged attendance at multiple family support groups between end of treatment &amp; 36 months.</p>	<p><u>Intermediate Outcomes</u>  Adherence:  a. Engagement (participation rate in ≥2 sessions)  b. Exposure (attended at least 3 problem solving sessions for FIDD or 6 educational sessions for FPE)</p> <p><u>Outcome timeframe:</u>  Post-treatment only</p>	<p><u>Allocation</u>  <u>Concealment:</u> NR</p> <p><u>Blinding:</u> Yes (assessors)</p> <p><u>Intention-to-treat analysis:</u> Yes</p> <p><u>Withdrawals adequately described:</u> Yes</p> <p><u>Treatment integrity:</u>  Interviews were randomly selected and rated by a third interviewer to check on reliability</p> <p><b><u>Study Quality:</u>  Good</b></p>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Mueser, <i>in press</i> <sup>100</sup>  Government	Same as Mueser, 2009 <sup>99</sup>	Same as Mueser, 2009 <sup>99</sup>	Same as Mueser, 2009 <sup>99</sup>	Same as Mueser, 2009 <sup>99</sup>	<p><u>Patient Outcomes</u> Symptom improvement: a. BPRS – total b. BPRS psychosis scale c. TLFB Days Drinking d. TLFB Days using drugs</p> <p>Global functioning: a. GAS b. % stable days in community</p> <p><u>Intermediate Outcomes</u> Adherence b. Days medication non-adherence</p> <p><u>Outcome timeframe:</u> Baseline Post-treatment Final (36 months post baseline – 18 months post-treatment for FIDD group; 33 months post-treatment for FPE group)</p>	Same as Mueser, 2009 <sup>99</sup>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Schooler, 1997 <sup>24</sup>  Government but medications industry funded	N = 528 randomized, then patients started a stabilization phase (16-24 weeks); N = 313 (maintenance phase) – demographics provided for N=313 <u>Gender</u> : 66% male <u>Age</u> : 29.6 years <u>Race/ethnicity</u> : NR <u>Marital Status</u> : NR <u>Education</u> : NR  Veterans: NR  <i>Recruitment Method</i> : Recruited during hospitalization (93%) or as outpatients during an acute exacerbation  <i>Family Characteristics</i> : NR	<u>MH Condition</u> : Schizophrenia, schizoaffective/ schizophreniform disorders <u>Assessed by</u> : Structured clinical interview for DSM- III-R diagnosis <u>Family member or SO</u> : Any family member. <u>Inclusions</u> : In addition to diagnosis; age 18- 55; willingness to take fluphenazine decanoate injections and not receive other neuroleptic, antidepressant, or mood stabilizing medications; in contact with family of origin or legal guardian > 4 hours per week; subject and family member consent; psychiatric hospitalization or symptom relapse in the past three months. <u>Exclusions</u> : Current physical dependence on alcohol, stimulants, barbiturates, or narcotics, current hospitalization precipitated by substance abuse; current pregnancy; Liver damage, epilepsy or acute brain syndrome, unequivocal liver damage.	Two stage: Assigned to family treatment N = 528 1) Applied family management (AFM) N = 272 2) Supportive Family management (SFM) N = 256  Note: Assigned to a treatment group, then stabilized (stabilization phase for 16-24 weeks); then 2 year maintenance phase. After stabilization, further divided between 3 dose regimens of Fluphenazine.  Stabilized, and on to maintenance phase N = 313: 1) AFM N = 157 2) SFM N = 156  <u>Analysis</u> : Baseline: N=313 Post-treatment (2 years) N = 313	1) <u>Format</u> .* Individual family meeting in home, then sessions in home (individual) with patient present; monthly family group meetings and case management that paralleled SFM. <u>Manualized</u> : Yes <u>Sessions</u> : weekly then biweekly then monthly; max of 32 sessions <u>Txt Length</u> : > 2 years <u>Approach</u> : behavioral family therapy, in addition to SFM model - psychoeducational (communication, problem solving, social support) 2) <u>Format</u> .*: Monthly group meetings (with patient present), with case management / consultation with treatment team for problem solving (if initiated by family). <u>Manualized</u> : NR <u>Sessions</u> : Monthly <u>Txt Length</u> : > 2 years <u>Approach</u> : psychoeducational (communication, problem solving, social support). Families relied on to initiate contacts with treatment team as needed.	<u>Patient Outcomes</u> <u>Utilization</u> : a. Time to rehospitaliza- tion b. % rehospitalized c. Time to first rescue medication d. Time to psychotic relapse  <u>Outcome timeframe</u> : Final (24 months post)  <u>Intermediate Outcomes</u> Treatment attendance a.% attended initial workshop b.% attended monthly support meetings  <u>Outcome timeframe</u> : Baseline Post-treatment	<u>Allocation</u> <u>concealment</u> : NR  <u>Blinding</u> : Medication blinded  <u>Intention to treat</u> <u>analysis</u> : No; only those who stabilized shown  <u>Withdrawals</u> <u>adequately</u> <u>described</u> : Yes  <u>Treatment Integrity</u> : Certification in AFM required for study clinicians based on video sessions; ongoing competency monitored through audio taped sessions & supervisory telephone calls.  <u>Study Quality</u> : <b>Fair</b>

Study, Year Funding Source	Sample Characteristics	Inclusion/Exclusion Criteria	Treatment Groups	Intervention Characteristics	Outcomes Assessed	Quality
Mueser, 2001 <sup>104</sup>  Government	Same Study as Schooler, 1997 <sup>24</sup>	Same Study as Schooler 1997 <sup>24</sup>	Same Study as Schooler 1997 <sup>24</sup>  Analysis of those who stabilized and went to maintenance phase N = 313 1) AFM, N = 157 2) SFM, N = 156  <u>Analysis:</u> Baseline: N=313 Post-treatment (2 years) N = 313	Same Study as Schooler 1997 <sup>24</sup>	<u>Family Outcomes</u> Family Functioning a. SAS-PT Social functioning Family relationship Patient Rejection Scale b. SAS-Interim Patient: Family friction scale  <u>Couple functioning:</u> a. SAS-PT Romance- sexual  <u>Outcome timeframe:</u> Baseline Post-treatment	Same Study as Schooler 1997 <sup>24</sup>  <u>Treatment Integrity:</u> Additional information provided: all sessions audio taped, and select sessions evaluated by independent rater.

NR=not reported; HS = high school; DSM=Diagnostic and Statistical Manual of Mental Disorders; SO=significant other or family member included; MFG=Multiple Family Group; SC=Standard Care; NR=not reported; N/A=not applicable; SO=significant other; MANS=Modified Scale for Assessment of Negative Symptoms; ACT=Assertive community treatment; PANSS=Positive and Negative Syndrome Scale; SAS-FV=Social Adjustment Scale – Family Version; FIDD=Family Intervention for Dual Disorders; FPE=Family Psychoeducation; Applied Family management=AFM; Supportive Family Management=SFM; SAS-PT=Social Adjustment Scale Patient; TLFB = Time Line Follow Back; BPRS = Brief Psychiatric Rating Scale; GAS = Global Assessment Scale

\*Both groups started with psychoeducational workshop.

**Table 10. Patient Outcomes - Schizophrenia Spectrum Disorder Studies**

Study, Year Interventions Sample	Pre-treatment (baseline)	During-treatment	Post-Treatment	Long-term follow up
<b>SYMPTOM IMPROVEMENT</b>				
Dyck, 2000 <sup>101</sup> 1) Multiple Family Groups (MFG) 2) Standard care (SC) Completers	MSANS 1) 7.9 (3.1) N=21 2) 8.7 (3.3) N=21 p=NR (ns)	MSANS <sup>1</sup> 1) <b>7.2 (2.0) N=21</b> 2) <b>8.4 (3.1) N=21</b> <b>p&lt;0.05</b>		
Mueser <sup>2</sup> , in press <sup>100</sup> 1) Family Intervention for Dual Disorders (FIDD) 2) Family Psychoeducation (FPE) Completers	Brief Psychiatric Rating Scale BPRS (Total) 1) 2.0 (0.6) N=52 2) 2.0 (0.5) N=56 p=NR	BPRS Total at month 12 1) 1.9 (0.5) N=39 2) 2.0 (0.6) N=45 p=NR	BPRS Total at month 18 1) 1.7 (0.4) N=28 2) 1.9 (0.5) N=34 p=NR	BPRS Total at month 36 (FINAL) 1) 1.9 (0.5) N=23 2) 1.9 (0.5) N=25 p=NR <b>Linear regression, ANCOVA models (differences between groups 1) and 2) over time: F 3.8, df 1,86 p=0.05</b>  <b>Effects over time, groups 1) and 2) combined: F 8.0, df 1,390 p=0.005</b>
	Brief Psychiatric Rating Scale BPRS (Psychosis) 1) 2.1 (1.0) N=52 2) 2.1 (1.4) N=56 p=NR	BPRS Psychosis at month 12 1) 1.9 (1.0) N=39 2) 2.1 (0.1) N=45 p=NR	BPRS Psychosis at month 18 1) 1.8 (0.8) N=28 2) 1.6 (0.7) N=34 p=NR	BPRS Psychosis at month 36 (FINAL) 1) 1.9 (0.8) N=23 2) 1.9 (0.9) N=25 p=NR <b>Linear regression, ANCOVA models (differences between groups 1) and 2) over time: F 7.1, df 1,86 p=0.009</b>  Effects over time, groups 1) and 2) combined: F 3.4, df 1,390 p=0.07
	Days drinking, past 6 months 1) 45.5 (50.2) N=52 2) 37.1 (37.8) N=56 p=NR	Days drinking, past 6 months at month 12 1) 16.7 (28.2) N=39 2) 32.8 (47.0) N=45 p=NR	Days drinking, past 6 months at month 18 1) 25.1 (40.2) N=28 2) 22.3 (32.3) N=34 p=NR	Days drinking, past 6 months at month 36 (FINAL) 1) 36.0 (45.4) N=23 2) 32.3 (55.7) N=25 p=NR  Effects over time, groups 1) and 2) combined: F 0.24, df 1,283 p=0.63

Study, Year Interventions Sample	Pre-treatment (baseline)	During-treatment	Post-Treatment	Long-term follow up
	Days drug use, past 6 months 1) 49.9 (55.8) N=52 2) 50.0 (47.9) N=56 p=NR	Days drug use, past 6 months at month 12 1) 25.0 (45.9) N=39 2) 44.2 (59.4) N=45 p=NR	Days drug use, past 6 months at month 18 1) 28.4 (46.8) N=28 2) 32.3 (49.3) N=34 p=NR	Days drug use, past 6 months at month 36 (FINAL) 1) 43.4 (67.6) N=23 2) 30.6 (57.1) N=25  Effects over time, groups 1) and 2) combined: F 3.05, df 1,290 p=0.08
<b>GLOBAL FUNCTIONING</b>				
McFarlane 1996 <sup>29</sup> 1) Assertive Community Treatment (ACT) + MFG 2) ACT + Crisis intervention with families <i>ITT</i>			Employment rate during 2 year study period 1) 32% N=37 2) 19% N=31 p<0.07	
Mueser <sup>2</sup> , in press <sup>100</sup> 1) Family Intervention for Dual Disorders (FIDD) 2) Family Psychoeducation (FPE) <i>Completers</i>	Global Assessment Scale 1) 43.4 (10.1) N=52 2) 42.7 (8.2) N=56 p=NR	Global Assessment Scale at month 12 1) 49.0 (12.6) N=39 2) 47.2 (10.9) N=45 p=NR	Global Assessment Scale at month 18 1) 49.8 (12.9) N=28 2) 48.4 (11.2) N=34 p=NR	Global Assessment Scale at month 36 (FINAL) 1) 48.3 (12.0) N=23 2) 47.5 (9.0) N=25 p=NR  <b>Effects over time, groups 1) and 2) combined:</b> <b>F 11.9, df 1,388 p&lt;0.001</b>  Linear regression, ANCOVA models (differences between groups 1) and 2) over time: F 2.9, df 1,86 p=0.08
	% stable days in community, past 6 months 1) 84% N=52 2) 87% N=56 p=NR	% stable days in community, past 6 months at month 12 1) 86% N=39 2) 85% N=45 p=NR	% stable days in community, past 6 months at month 18 1) 97% N=28 2) 89% N=34 p=NR	% stable days in community, past 6 months at month 36 (FINAL) 1) 92% N=23 2) 93% N=25 p=NR  <b>Effects over time, groups 1) and 2) combined:</b> <b>F 5.68, df 1,387 p=0.02</b>



Study, Year Interventions Sample	Pre-treatment (baseline)	During-treatment	Post-Treatment	Long-term follow up
<b>HEALTH CARE UTILIZATION</b>				
Dyck, 2002 <sup>102</sup> 1) Multiple Family Groups 2) Standard care <i>ITT</i>	% hospitalized in year prior <sup>3</sup> 1) 29% N=16/55 2) 38% N=19/51 p=0.15	% hospitalized in year prior <sup>1</sup> <b>1) 9% N=5/55</b> <b>2) 22% N=11/51</b> <b>p=0.03<sup>5</sup></b>		
		% received crisis/urgent care in year prior <sup>1</sup> 1) 13% N=7/55 2) 22% N=11/51 p=0.09		
	Outpatient Service Utilization (hours) in year prior <sup>3</sup> 1) 16.0 (24.7) N=55 2) 23.3 (34.4) N=51 p=0.21	Outpatient Service Utilization (hours) in year prior <sup>1</sup> 1) 15.8 (27.4) N=55 2) 14.1 (21.8) N=51 p=0.40		
McDonnell, 2006 <sup>103</sup> 1) Multiple Family Groups 2) Standard Care <i>Modified ITT</i>	% hospitalized (all psychiatric) in year prior <sup>3</sup> 1) 31% N=16/53 2) 37% N=16/44 p=NR (ns)	% hospitalized (all psychiatric) in year prior <sup>1</sup> 1) 8% N=4/53 2) 21% N=9/44 p=NR (ns)	% hospitalized (all psychiatric) in year prior <sup>4</sup> 1) 23% N=12/53 2) 16% N=7/44 p=NR (ns)	% hospitalized (all psychiatric) in year prior <sup>6</sup> 1) 8% N=4/53 2) 19% N=8/44 p=NR (ns)
	% hospitalized (community hospitals) in year prior <sup>3</sup> 1) 25% N=13/53 2) 33% N=14/44 p=NR (ns)	% hospitalized (community hospitals) in year prior <sup>1</sup> <b>1) 4% N=2/53</b> <b>2) 19% N=8/44</b> <b>p&lt;0.05</b>	% hospitalized (community hospitals) in year prior <sup>4</sup> 1) 21% N=11/53 2) 12% N=5/44 p=NR (ns)	% hospitalized (community hospitals) in year prior <sup>6</sup> 1) 8% N=4/53 2) 14% N=6/44 p=NR (ns)
	% hospitalized (state hospitals) in year prior <sup>3</sup> 1) 8% N=4/53 2) 9% N=4/44 p=NR (ns)	% hospitalized (state hospitals) in year prior <sup>1</sup> 1) 4% N=2/53 2) 7% N=3/44 p=NR (ns)	% hospitalized (state hospitals) in year prior <sup>4</sup> 1) 6% N=3/53 2) 9% N=4/44 p=NR (ns)	% hospitalized (state hospitals) in year prior <sup>6</sup> <b>1) 2% N=1/53</b> <b>2) 14% N=6/44</b> <b>p&lt;0.05</b>
	Outpatient Service Utilization (hours) in year prior <sup>3,7</sup> 1) 55.8 (88.1) N=53 2) 57.6 (85.3) N=44 p=NR (ns)	Outpatient Service Utilization (hours) in year prior <sup>1</sup> <b>1) 79.3 (94.6) N=55</b> <b>2) 53.6 (74.2) N=51</b> <b>p&lt;0.05</b>	Outpatient Service Utilization (hours) in year prior <sup>4</sup> <b>1) 39.9 (71.0) N=53</b> <b>2) 27.2 (51.9) N=44</b> <b>p&lt;0.05</b>	Outpatient Service Utilization (hours) in year prior <sup>6</sup> 1) 14.0 (15.8) N=53 2) 25.2 (33.5) N=44 p=NR (ns)

Study, Year Interventions Sample	Pre-treatment (baseline)	During-treatment	Post-Treatment	Long-term follow up
Schooler, 1997 <sup>24</sup> 1) Applied Family Management 2) Supportive Family Management <i>Patients who stabilized, and were in maintenance only</i>			Days to re-hospitalization 1) 515 N=157 2) 504 N=156 p=NR (ns)	
			% re-hospitalized 1) 29% N=157 2) 35% N=156 p=0.28	
			Days to first rescue medication 1) 323 N=157 2) 351 N=156 p=NR (ns)	
			Days to psychotic relapse 1) 524 N=157 2) 544 N=156 p=NR (ns)	

Outcomes reported as mean (standard deviation) unless otherwise noted.

Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted. Measures listed in the study descriptive tables but not reported here if either 1) the authors did not report findings from these measures or 2) they did not test for differences between conditions on these measures.

ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach; MSANS = Modified Scale for Assessment of Negative Symptoms;

<sup>1</sup>Timepoint = Year 1 of two year intervention.

<sup>2</sup>FIDD arm treatment duration = 9-18 months; FPE = 3 months.

<sup>3</sup>Timepoint = one year prior to baseline.

<sup>4</sup>Timepoint = Year 2 of two year intervention.

<sup>5</sup>MFG versus SC significantly correlated with hospitalization year after baseline. Cochran-Mantel-Haenszel procedure that controlled for hospitalization year before randomization, yielded a significant association between group membership and hospitalization (p<0.04).

<sup>6</sup>Timepoint = One year after two year intervention.

<sup>7</sup>McDonnell appears to contradict Dyck (2002); however, crisis utilization services were not included in estimate of outpatient utilization in Dyck, but were included in McDonnell figures. MFG treatment group utilization increase during utilization period due to addition of 24 90 minute MFG sessions in year 1, and 12 in year 1 (post baseline). When these sessions are removed, no group differences observed.

**Table 11. Family Outcomes - Schizophrenia Spectrum Disorder Studies**

Study, Year Interventions Sample	Baseline	Mid-treatment (one year) <sup>1</sup>	Post-treatment (two years) <sup>1</sup>
<b>FAMILY FUNCTIONING</b>			
Mueser, 2001 <sup>104</sup> 1) Applied Family Management 2) Supportive Family Management <i>Patients who stabilized, and were in maintenance only</i>	SAS: Social/leisure factor 1) 2.8 (0.6) N=157 2) 2.7 (0.6) N=156 p=NR	SAS: Social/leisure factor 1) 2.7 (0.7) N=157 2) 2.6 (0.6) N=156 p=NR	SAS: Social/leisure factor 1) 2.8 (0.7) N=157 2) 2.6 (0.6) N=156 <u>Mixed effects model:</u> <sup>2</sup> Test of differences between groups over time: F(2,299)=0.29 p=NR (ns)
	SAS: Family relationships factor 1) 1.8 (0.7) N=157 2) 1.9 (0.6) N=156 p=NR	SAS: Family relationships factor 1) 1.9 (0.6) N=157 2) 1.8 (0.6) N=156 p=NR	SAS: Family relationships factor 1) 1.9 (0.6) N=157 2) 1.9 (0.6) N=156 <u>Mixed effects model:</u> <sup>2</sup> Test of differences between groups over time: F(2,299)=0.92 p=NR (ns)
	Patient Rejection Scale <sup>3</sup> 1) 61.0 (22.1) N=157 2) 57.3 (19.6) N=156 p=NR	Patient Rejection Scale <sup>3</sup> 1) 59.2 (21.5) N=157 2) 58.9 (21.7) N=156 p=NR	Patient Rejection Scale <sup>3</sup> 1) 61.2 (23.0) N=157 2) 60.2 (23.0) N=156 <u>Mixed effects model:</u> <sup>2</sup> Test of differences between groups over time: <b>F(2,288)=3.07</b> <b>p&lt;0.01</b> Effect size (r): 0.30
			SAS Family friction <sup>4</sup> <b>B=-0.187 SE 0.063</b> <b>p&lt;0.01</b> Effect size (r): 0.24
<b>COUPLE FUNCTIONING</b>			
Mueser, 2001 <sup>104</sup> 1) Applied Family Management 2) Supportive Family Management <i>Patients who stabilized, and were in maintenance only</i>	SAS: romance / sexual factor 1) 2.8 (1.1) N=157 2) 2.9 (0.9) N=156 p=NR	SAS: romance / sexual factor 1) 2.7 (1.0) N=157 2) 2.6 (1.0) N=156 p=NR	SAS: romance / sexual factor 1) 2.7 (1.1) N=157 2) 2.6 (1.0) N=156 <u>Mixed effects model:</u> <sup>2</sup> Test of differences between groups over time: F(2,236)=0.71 p=NR (ns)

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted. Measures listed in the study descriptive tables but not reported here if either 1) the authors did not report findings from these measures or 2) they did not test for differences between conditions on these measures. ns = not significant (at 5% level); NR = not reported; N/A = not applicable; SAS = Social Adjustment Scale

<sup>1</sup>Family outcomes for this study calculated at baseline, year 1, and year 2 of two year treatment.

<sup>2</sup>Mixed effects model included covariates diagnosis, gender, site, Brief Psychiatric Rating scale.

<sup>3</sup>Patient rejection scale, high scores indicate more negative family attitudes toward the patient.

<sup>4</sup>Based on random effects models; effects sizes computed by averaging outcomes for months 18-24.

**Table 12. Intermediate Outcomes - Schizophrenia Spectrum Disorder Studies**

Study, Year Interventions Sample	Baseline / Short Term	During treatment	During treatment/post-treatment	Final
<b>ATTENDANCE</b>				
Mueser, 2009 <sup>99</sup> and in press <sup>100</sup> 1) Family Intervention for Dual Disorders (FIDD) 2) Family Psychoeducation (FPE) ITT			Engagement in treatment (≥ 2 sessions, either arm) 1) 88% N=46/52 2) 84% N=47/56 p=NR (ns)	
			Exposed to treatment (≥ 3sessions FIDD; ≥6 sessions FPE) 1) 62% N=32/52 2) 55% N=31/56 p=NR (ns)	
				Relatives attending family support group (between end of treatment and month 36) 1) 15% N=6/40 2) 11% N=5/46 p=NR (ns)
Schooler, 1997 <sup>24</sup> 1) Applied Family Management 2) Supportive Family Management Completers	Attendance, initial workshop <sup>1</sup> 1) 75.2% N=272 2) 79.2% N=256 p=NR (ns)			
	Attendance, monthly treatment <sup>1</sup> 1) 53.5% N=272 2) 60.3% N=256 p=NR (ns)	Attendance, monthly treatment <sup>2</sup> 1) 60.4% N=157 2) 66.2% N=156 p=NR (ns)	% Attendance, monthly treatment <sup>3</sup> 1) 50.2% N=157 2) 50.9% N=156 p=NR (ns)	Attendance, monthly treatment <sup>4</sup> 1) 39.3% N=157 2) 33.3% N=156 p=NR (ns)
<b>ADHERENCE</b>				
Mueser <sup>2</sup> , in press <sup>100</sup> 1) Family Intervention for Dual Disorders (FIDD) 2) Family Psychoeducation (FPE) Completers	Days medication non-adherence (in past 30) at baseline 1) 4.5 (8.1) N=52 2) 2.6 (6.4) N=56 p=NR (ns)	Days medication non-adherence (in past 30) at month 12 1) 2.6 (8.1) N=39 2) 5.2 (9.0) N=45 p=NR (ns)	Days medication non-adherence (in past 30) at month 18 1) 4.0 (6.9) N=28 2) 3.1 (7.8) N=34 p=NR (ns)	Days medication non-adherence (in past 30) at month 36 (FINAL) 1) 2.5 (3.0) N=23 2) 1.2 (1.9) N=25 p=NR (ns) Time effects, combined groups: F 3.34, df 1,350 p=0.07

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.

ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach.

<sup>1</sup>During 16-24 week stabilization phase.

<sup>2</sup>For subjects that stabilized, attendance during months 1-6 of maintenance phase.

<sup>3</sup>For subjects that stabilized, attendance during months 7-12 of maintenance phase.

<sup>4</sup>For subjects that stabilized, attendance during months 18-24 of maintenance phase (final).

<sup>5</sup>FIDD arm treatment duration = 9-18 months; FPE = 3 months.

Table 13. Study Descriptive Information - Post Traumatic Stress Disorder (PTSD) Studies

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
Glynn, 1999 <sup>8</sup>  Government	N = 36 <u>Gender</u> : 100% male <u>Age</u> : 46.6 (3.1) yrs <u>Race/ethnicity</u> : White 45% African American: 29% Hispanic 26% <u>Marital Status</u> : NR <u>Education (years)</u> : 13.5 (2.5) yrs  Veterans: 100%  <u>Family Characteristics</u> : Wife/conjugal partner 90% Sibling 5% Parent 5%  <u>Recruitment Method</u> : All current patients at Veterans Affairs Hospital (inpatient and outpatient), recruited from Los Angeles, CA area.	<u>MH Condition</u> : PTSD <u>Assessed by</u> : Clinician-Administered PTSD Scale <u>SO</u> : Any family member <u>Inclusions</u> : 1) military service during the Vietnam conflict, 2) clinical diagnosis of combat PTSD, 3) stable psychiatric medication regimen at randomization, 4) willingness to provide informed consent <u>Exclusions</u> : 1) medical condition contraindicating use of exposure therapy (e.g., severe cardiovascular disease), 2) history or present evidence of an organic brain, psychotic, or severe dissociative disorder, 3) current substance dependence, 4) evidence of overt physical aggression to self or others within preceding year	1) Exposure Therapy + Behavioral Family Therapy (BFT) N = 17 (11 completed)  2) Exposure Therapy N = 12 (12 completed)  3) 2 month wait list + BFT if desired N = 13 (13 completed)  <u>Randomized</u> : N=42  <u>Analysis</u> : Baseline N=36 Post-treatment N=36 Short term (final) 6 months N=20	1) <u>Format</u> : Exposure Therapy + BFT <u>Manualized</u> : Yes <u>Sessions</u> : 18 exposure sessions followed by 16 sessions of BFT <u>Txt Length</u> : 9 weeks for exposure therapy then 11-12 weeks of BFT weekly, then 2 biweekly BFT meetings, then 2 monthly BFT meetings <u>Approach</u> : Repeated exposure to trauma memory followed by cognitive restructuring + skills training in BFT for education on the disorder, communication training, anger management, and problem-solving skills. 2) <u>Format</u> : Exposure Therapy <u>Manualized</u> : Yes <u>Sessions</u> : 18 <u>Txt Length</u> : 9 weeks <u>Approach</u> : Exposure therapy with cognitive restructuring 3) <u>Format</u> : wait list + BFT if desired <u>Manualized</u> : Yes <u>Sessions</u> : 16 <u>Txt Length</u> : 11-12 weeks of BFT weekly, then 2 biweekly BFT meetings, then 2 monthly BFT meetings <u>Approach</u> : Psychoeducation, communication training, anger management, problem-solving skills training	<u>Patient Outcomes</u> Symptom Improvement a. M-PTSD b. Impact of Events Scale c. CAPS Global functioning a. SAS-SR  <u>Family Outcomes</u> Family functioning: a. SPSI  <u>Intermediate Outcome</u> Attendance a. # dropouts  <u>Outcome time-frame</u> : Baseline Post-treatment Short term (Final) – 6 months	<u>Allocation concealment</u> : NR  <u>Blinding</u> : NR  <u>Intention to treat analysis</u> : No  <u>Withdrawals adequately described</u> : Yes  <u>Treatment Integrity</u> : Therapists met weekly with supervisors; supervisors reviewed progress notes; sessions audiotaped and PI listened to random 20% for protocol adherence (then provided feedback to therapists)  <u>Study Quality</u> : Fair

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
Weine, 2008 <sup>105</sup>  Government	<p>N = 197  <u>Gender</u>: 48% male  <u>Age</u>: 37.7 years  <u>Race/ethnicity</u>:  Bosnia refugees  100%  <u>Marital Status</u>:  Married 82%  Divorced or  separated 11%  Single, never  married 4%  Widowed 3%  <u>Education</u>:  HS graduate 62%</p> <p>Veterans: NR</p> <p><i>Family  Characteristics</i>:  N=166  <u>Gender</u>: 40%  male  <u>Age</u>: 35.5 yrs  <u>Marital Status</u>:  Married 87%  Divorced or  separated 3%  Single, never  married 10%  <u>Education</u>:  HS graduate 56%  <i>Recruitment  Method</i>:  community based  organizations</p>	<p><u>MH Condition</u>: PTSD  <u>Assessed by</u>: PTSD  Symptoms Scale  <u>SO</u>: Any family member(s)  &gt;17 age living in same  household  <u>Inclusions</u>: Bosnian refugees  who screened positive for  PTSD; not currently receiving  mental health services.  <u>Exclusions</u>: Those who  screened positive for an acute  confusional state, active  psychosis, or substance  intoxication or withdrawal</p>	<p>1) Coffee  and Family  Education  and Support  (CAFES)  N = 110</p> <p>2) No treatment  control group  N = 87</p> <p><u>Analysis</u>:  Baseline N=197  Short term (6  months)  N=197  Long term (12  months)  N=197  Final (18  months)  N=197</p>	<p>1) <u>Format</u>: Groups for the patient and  family members (all family members &gt;  17 yrs old invited; 7 families/group)  <u>Manualized</u>: Yes  <u>Sessions</u>: 9  <u>Txt Length</u>: 16 weeks  <u>Approach</u>: Community-based, family  focused program aimed at improving  access to mental health services by  impacting family processes intervention  included support, psychoeducation, and  communication training among other  topics</p> <p>2) No treatment</p>	<p><u>Patient Outcome</u>  Health Care  Utilization  a. # of mental  health visits</p> <p><u>Intermediate Out-  come</u>  Attendance  a. attrition rate</p> <p><u>Outcome time-  frame</u>:  <u>Baseline</u></p> <p><u>Short term</u>:  6 months</p> <p><u>Long term</u>:  12 months</p> <p><u>Final</u>: 18 months</p>	<p><u>Allocation  concealment</u>:  NR</p> <p><u>Blinding</u>: NR</p> <p><u>Intention to treat  analysis</u>: NR</p> <p><u>Withdrawals  adequately  described</u>: Yes</p> <p><u>Treatment Integrity</u>:  20 hrs  implementation  training,  weekly group  and individual  supervision,  monthly  videotaping of  CAFES sessions</p> <p><b><u>Study Quality</u>:  Fair</b></p>

NR = not reported; PI = Principal Investigator; HS = high school; SO = significant other or family member included; M-PTSD = Mississippi Scale for Combat-Related PTSD; CAPS = Clinician Administered PTSD Scale; SAS-SR = Social Adjustment Scale-Self-report; SPSI = Social Problem-Solving Inventory

**Table 14. Patient Outcomes - Post Traumatic Stress Disorder Studies**

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>SYMPTOM IMPROVEMENT</b>				
Glynn, 1999 <sup>a</sup> 1) Exposure therapy + Behavioral Family Therapy (BFT) 2) Exposure therapy 3) 2 month wait list + then BFT if desired <i>Completers only</i>	Positive symptoms 1) 0.03 (0.10) N=11 2) -0.03 (0.15) N=12 3) 0.01 (0.14) N=13 p=ns	Positive symptoms <sup>a</sup> <b>1) -0.06 (0.15) N=11</b> <b>2) -0.07 (0.12) N=12</b> <b>3) 0.02 (0.09) N=13</b> <b>p &lt; 0.05</b> <b>*Groups 1) &amp; 2) significantly &lt; 3)</b>	Positive symptoms <sup>a</sup> 1) -0.07 (0.12) N=10 2) -0.09 (0.16) N=10 3) NR p=ns	
	Negative symptoms <sup>a</sup> 1) -0.04 (0.12) N=11 2) -0.05 (0.12) N=12 3) 0.01 (0.11) N=13 p=ns	Negative symptoms <sup>a</sup> 1) -0.11 (0.23) N=11 2) -0.15 (0.17) N=12 3) -0.02 (0.17) N=13 p=ns	Negative symptoms <sup>a</sup> 1) -0.10 (0.21) N=10 2) -0.15 (0.21) N=10 3) NR p=ns	
<b>GLOBAL FUNCTIONING</b>				
Glynn, 1999 <sup>a</sup> 1) Exposure therapy + BFT 2) Exposure therapy 3) 2 month wait list + then BFT if desired <i>Completers only</i>	Social Adjust Scale (SAS-SR) <sup>b</sup> 1) 2.64 (0.47) N=11 2) 2.73 (0.25) N=12 3) 2.84 (0.71) N=13 p=ns	Social Adjust Scale (SAS-SR) <sup>b</sup> 1) 2.40 (0.61) N=11 2) 2.48 (0.43) N=12 3) 2.72 (0.69) N=13 p=ns	Social Adjust Scale (SAS-SR) <sup>b</sup> 1) 2.32 (0.55) N=10 2) 2.55(0.61) N=10 3) NR p=ns	
<b>HEALTH CARE UTILIZATION</b>				
Weine, 2008 <sup>105</sup> 1) Coffee and Family Education and Support (CAFES) 2) No treatment (control) <i>ITT analyses</i>	# mental health visits in prior 6 months 1) 0.1 N=110 2) 0.1 N= 87 p=NR		# mental health visits in prior 6 months 1) 5.2 N=110 2) 2.2 N=87 p=NR (6months)	# mental health visits in prior 6 months 1) 6.3 N=110 2) 2.3 N=87 p=NR (12 months) # mental health visits in prior 6 months 1) 6.0 N=110 2) 1.7 N=87 p=NR (18 months- final) <u>Random effects regression model:</u> <b>Significant between group differences: <math>\beta = 3.17</math>, <math>p&lt;0.005</math></b>

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.

ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach.

<sup>a</sup>Composite of Clinician Administered PTSD Scale (CAPS) scores; Mississippi Scale for Combat-Related PTSD scale scores; and Impact of Events Scale; Higher score indicates more severe symptoms or worse social adjustment.

<sup>b</sup>Higher score indicates more severe symptoms or worse social adjustment.

**Table 15. Family Outcomes - Post Traumatic Stress Disorder Studies**

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>FAMILY FUNCTIONING</b>				
Glynn, 1999 <sup>*</sup> 1) Exposure therapy + Behavioral Family Therapy (BFT) 2) Exposure therapy 3) 2 month wait list + then BFT if desired	Social Problem-Solving Inventory (SPSI) NR	Social Problem-Solving Inventory (SPSI) No group comparisons on family functioning outcomes  <i>Subgroup comparison (change scores from baseline to post )</i>  <b>(a) BFT completers:</b> <b>6.00 (22.61) N=NR</b> <b>(b) No BFT participation</b> <b>-9.10 (21.70) N=NR</b> <b>p&lt;0.05</b>		

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.  
NR = not reported

**Table 16. Intermediate Outcomes - Post Traumatic Stress Disorder Studies**

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>ATTENDANCE</b>				
Glynn, 1999 <sup>*</sup> 1) Exposure therapy + Behavioral Family Therapy (BFT) 2) Exposure therapy 3) 2 month wait list + then BFT if desired <i>Completers only</i>	# of dropouts N/A	# of dropouts <b>1) 6 N=17</b> <b>2) 0 N=12</b> <b>3) 0 N=13</b> <b>p &lt; 0.01</b>		
Weine, 2008 <sup>105</sup> 1) Coffee and Family Education and Support (CAFES) 2) No treatment (control) <i>ITT analyses</i>	Attrition Rate N/A	Attrition Rate NR	Attrition Rate 1) 17% 2) 14% p=NR	Attrition Rate 1) 6% 2) 10% p=NR <i>(12 months)</i>  Attrition Rate 1) 4% 2) 1% p=NR <i>(18 months - final)</i>

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.  
NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach



Table 17. Study Descriptive Information - Sexual Functioning Disorders Studies

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes As- sessed	Quality
Aubin, 2009 <sup>106</sup>  Funding source not reported	N = 44 <u>Gender:</u> 100% male <u>Age:</u> 52.4 yrs <u>Race/ethnicity:</u> White 86% Non-white 14%  <u>Marital Status:</u> Married 68% Cohabiting or dating 32% Relationship length: 18.4 yrs <u>Education:</u> 25% High school 75% College or greater  Veterans: NR  <u>Family Characteristics:</u> Female partners 100% Wives 68% Girlfriend/SO 32% Age: 50.0 years  <u>Recruitment Method:</u> Newspaper advertisements, referrals from practitioners, flyers	<u>MH Condition:</u> Erectile dysfunction (ED) <u>Assessed by:</u> NR <u>SO:</u> Female intimate partner <u>Inclusions:</u> 20-80 yrs old; ED for ≥6 months (due to a medical condition or not); absence of medical condition that prohibits Sildenafil intake or compromises study completion; stable heterosexual relationship ≥1 year; men consent to pre-tx medical evaluation to establish level of organic involvement of ED and safety of Sildenafil dosage; both partners read, write, and speak English fluently; provide informed consent <u>Exclusions:</u> Fair-to- severe mood disorders (BDI-II > 19), substance- related disorders (≥3 drinks a day), lifetime female sexual dysfunction except pain related to lubrication; inability to interrupt psychotherapy during study; spousal abuse; extra-marital affair in last year; recent discussion of or separation plans; gender identity disorder in last 5 years	1) Medication (Sildenafil) + sex therapy N = 27 (24 completed)  2) Medication (Sildenafil) only N = 24 (20 completed)  <u>Randomized:</u> N = 51  <u>Analysis:</u> Baseline N= 44 Post-treatment: N = 44 Short term (Final-2 months): N = 44	1) <u>Format:</u> medication + couple sex therapy <u>Manualized:</u> Yes <u>Sessions:</u> 8 sex therapy sessions (weekly for weeks 1-4; biweekly thereafter) <u>Text Length:</u> 12 weeks <u>Approach:</u> "Sessions included an amalgam of existing couple and sex therapy strategies such as communication and emotional skills training, sensate focus, sexual fantasy training, and cognitive restructuring" with homework  2) <u>Format:</u> medication only with brief, typically individual, pick-up visits to assess side effects and medical concerns <u>Manualized:</u> NR <u>Sessions:</u> 8 (15 minute) sessions; weekly for weeks 1-4 and then biweekly <u>Text Length:</u> 12 weeks <u>Approach:</u> NR	<u>Patient Outcomes:</u> Symptom Improvement a. International Index for Erectile Function (IIEF)  <u>Family Outcomes:</u> Couple functioning: a. Dyadic Adjustment scale (DAS) b. Personal Assessment of Intimacy in Relation- ships (PAIR)  <u>Intermediate Outcomes</u> Satisfaction with care a. Erectile Dysfunction Inventory of Treatment Satisfaction (EDITS)  Attendance: a. Retention  <u>Outcome timeframe:</u> Baseline Post-treatment Short term (final): 2 months	<u>Allocation concealment:</u> NR  <u>Blinding:</u> NR  <u>Intention to treat analysis:</u> No  <u>Withdrawals adequately described:</u> Yes  <u>Treatment Integrity:</u> all couples need by same therapist (Principal Investigator)  <b><u>Study Quality:</u> Poor</b>

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes As- sessed	Quality
Banner, 2007 <sup>107</sup>  Funding source not reported	N = 53 <u>Gender:</u> 100% male <u>Age:</u> 56.8 yrs <u>Race/ethnicity:</u> White 87% Asian 6% Other 7%  <u>Marital Status:</u> NR <u>Relationship</u> <u>length:</u> 23.6 yrs <u>Education:</u> NR  Veterans: NR  <u>Family</u> <u>Characteristics:</u> 100% female partners  <u>Recruitment</u> <u>Method:</u> Newspaper and radio advertisements, referrals from local practitioners	<u>MH Condition:</u> Erectile dysfunction without previously diagnosed medical etiology <u>Assessed by:</u> Psychologist telephone interview <u>SO:</u> Intimate partner of at least 6 months <u>Inclusions:</u> Heterosexual couples in the same relationship ≥6 months; Patient diagnosis of predominantly psychogenic ED confirmed by a urologist. <u>Exclusions:</u> Patient: diabetes mellitus, multiple sclerosis, spinal cord injury, prostate surgery or radiation, Peyronie's disease, or significant mental health problems requiring psychotropic drugs or hospitalization, or receiving medication for hypertension, heart disease/angina (especially nitrates) or vascular disease. Female partner: diagnosis of dyspareunia, primary anorgasmia or vaginismus.	1) Medication (Sildenafil) + cognitive behavioral sex therapy N = 30 (29 completed)  2) Medication (Sildenafil) only + sex therapy for non-responders after week 4  N = 27 (24 completed)  <u>Randomized:</u> N = 57  <u>Analysis:</u> Baseline: N = 53 Post-treatment (4 weeks): N = 53 Final (8 weeks): N = 53	1) <u>Format:</u> Medication (Sildenafil) + cognitive behavioral sex therapy <u>Manualized:</u> NR <u>Sessions:</u> Weekly <u>Txt Length:</u> 4-8 weeks <u>Approach:</u> medication + cognitive-behavioral sex therapy 2) <u>Format:</u> Sildenafil + couple sex therapy for treatment non- responders <u>Manualized:</u> NR <u>Sessions:</u> 3-6 <u>Txt Length:</u> 4-8 weeks <u>Approach:</u> 1 pretreatment information session; follow-up visits with a psychologist at 4 and 8 weeks; 4 weeks of cognitive- behavioral sex therapy if non-responsive to medication at week 4; only 1 couple met the 'success' criteria after 4 weeks of medication only and all other couples (N = 23) we assigned to 4 weeks of sex therapy	<u>Patient Outcomes:</u> Symptom Improvement a. IIEF Patient Global functioning a. BDI <u>Family Outcomes:</u> Couple functioning: a. Revised DAS (Patient) Sexual satisfaction a. IIEF – sexual satisfac- tion (Patient) <u>Intermediate Outcomes</u> Attendance: a. Retention	<u>Allocation</u> <u>concealment:</u> NR  <u>Blinding:</u> NR  <u>Intention to treat</u> <u>analysis:</u> No  <u>Withdrawals</u> <u>adequately</u> <u>described:</u> Yes  <u>Treatment Integrity:</u> NR  <b><u>Study Quality: Poor</u></b>

SO = significant other or family member included; NR = not reported; HS = high school; BDI = Beck Depression Inventory

**Table 18. Patient Outcomes - Sexual Functioning Disorders Studies**

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>SYMPTOM IMPROVEMENT</b>				
Aubin, 2009 <sup>106</sup> 1) Sildenafil + couple sex therapy 2) Sildenafil only <i>Completers only</i>	IIEF - Total Score 1) 33 (17) N=24 2) 40 (16) N=20 p=ns	IIEF - Total Score 1) 50.3 (16.4) N=24 2) 55 (13.7) N=20 p=ns	IIEF - Total Score 1) 47.7 (19.6) N=24 2) 46.2 (14.2) N=20 (at 2 months - final) p=ns	
Banner, 2007 <sup>107</sup> 1) Sildenafil + couple sex therapy 2) Sildenafil only (provided couple sex therapy for treatment non-responders after 4 week post- treatment assessment) <i>Completers only</i>	IIEF erectile function 1) 11.7 (7.2) N=29 2) 9.0 (7.2) N=24	IIEF erectile function 1) 17.4 (7.6) N = 29 2) 13.7 (8.4) N = 24 p = 0.10 (week 4)  Clinical 'success' 1) 48% 2) 29% p=NR		
	IIEF erectile function (% patients with score ≥ 19 - clinical success) 1) 14% (4/29) p=ns 2) 17% (4/24) p=ns	IIEF erectile function 1) 48% (14/29) p=ns 2) 29% (7/24) p=ns p=NR (week 4)		

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted. Measures listed in the study descriptive tables but not reported here if either 1) the authors did not report findings from these measures or 2) they did not test for differences between conditions on these measures.

ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach; IIEF = International Index for Erectile Function

<sup>a</sup>Between week 4 and week 8, Couple Sex Therapy was added to treatment group 2 non-responders.

**Table 19. Family Outcomes - Sexual Functioning Disorders Studies**

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>COUPLE FUNCTIONING</b>				
Aubin, 2009 <sup>106</sup> 1) Sildenafil + couple sex therapy 2) Sildenafil only <i>Completers only</i>	PAIR–Sexual Intimacy (Patient) 1) 68.3 (22.3) N=24 2) 67.6 (21.4) N=20 p=NR	PAI –Sexual Intimacy (Patient) 1) 74.2 (23.7) N=24 2) 73.3 (20.0) N=20 p=NR	PAIR–Sexual Intimacy (Patient) 1) 73.0 (23.1) N=24 2) 71.6 (20.1) N=20 p=NR ( <i>at 2 months – final</i> )	
	PAIR Emotional Intimacy (Patient) 1) 73.0 (18.0) N=24 2) 74.0 (18.0) N=20 p=NR	PAIR–Emotional Intimacy (Patient) 1) 73.0 (18.0) N=24 2) 70.0 (19.0) N=20 p=NR	PAIR–Emotional Intimacy (Patient) 1) 71.2 (20.6) N=24 2) 70.0 (23.2) N=20 p=NR ( <i>at 2 months - final</i> )	
	DAS (Patient) 1) 113.8 (14.2) N=24 2) 113.4 (16.3) N=20 p=NR	DAS (Patient) 1) 115.2 (16.5) N=24 2) 115.2 (16.5) N=20 p=NR	DAS (Patient) 1) 112.4 (17.5) N=24 2) 112.4 (17.5) N=20 p=NR ( <i>at 2 months – final</i> )	
<b>SEXUAL FUNCTIONING</b>				
Banner, 2007 <sup>107</sup> 1) Sildenafil + couple sex therapy 2) Sildenafil + couple sex therapy for treatment non-responders <i>Completers only</i>	IIEF Sexual Satisfaction (Patient) 1) 4.8 (2.7) N=29 2) 4.2 (1.9) N=24 p=NR	IIEF Sexual Satisfaction (Patient) 1) 6.0 (1.9) N=29 2) 4.9 (2.0) N=24 p=NR ( <i>week 4</i> )		
	IIEF Sexual Satisfaction (% patients with score ≥6 - <i>clinical success</i> ) 1) 45% (13/29) 2) 29% (7/24) p=NR	IIEF Sexual Satisfaction (% patients with score ≥6 - <i>clinical success</i> ) 1) 65.5% (19/29) 2) 37.5% (9/24) p=NR ( <i>week 4</i> )		

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted. Measures listed in the study descriptive tables but not reported here if either 1) the authors did not report findings from these measures or 2) they did not test for differences between conditions on these measures. ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach; IIEF = International Index for Erectile Function; DAS = Dyadic Adjustment Scale; PAIR = Personal Assessment of Intimacy in Relationships

<sup>a</sup>Between week 4 and week 8, Couple Sex Therapy was added to treatment group 2 non-responders.

Table 20. Intermediate Outcomes - Sexual Functioning Disorders Studies

Study, Year Interventions Sample	Outcome Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>ATTENDANCE</b>				
Aubin, 2009 <sup>106</sup> 1) Sildenafil + couple sex therapy 2) Sildenafil only <i>Completers only</i>	Retention ( <i>Pre-treatment - randomization</i> ) 1) N=24 2) N=27 p=NR	Retention NR	Retention 1) N=20 2) N=24 ( <i>at 2 months - final</i> ) p=NR	
Banner, 2007 <sup>107</sup> 1) Sildenafil + couple sex therapy 2) Sildenafil + couple sex therapy for treatment non-responders <i>Completers only</i>	Retention ( <i>Pre-treatment -randomization</i> ) 1) N=30 2) N=27 p=NR	Retention 1) N=29 2) N=24 p=NR		
<b>SATISFACTION WITH CARE</b>				
Aubin, 2009 <sup>106</sup> 1) Sildenafil + couple sex therapy 2) Sildenafil only <i>Completers only</i>	EDITS (Patient) NR	EDITS (Patient) 1) 77.6 (12.8) N=24 2) 73.2 (17.5) N=20 p=ns	EDITS (Patient) <b>1) 71.9 (16.4) N=24</b> <b>2) 56.5 (22.8) N=18</b> <b>* 1) vs. 2) p ≤0.01</b> ( <i>at 2 months - final</i> )	

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.

ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach; EDITS = Erectile Dysfunction Inventory of Treatment Satisfaction

Table 21. Study Descriptive Information - Depression, Eating Disorders, and Smoking Cessation Studies

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
<b>DEPRESSION</b>						
Cohen, 2010 <sup>114</sup>  Government	<p>N = 35  <u>Gender:</u> 100% female  <u>Age:</u> 43.2 years  <u>Race/ethnicity:</u>  Caucasian 88%  Black 3%  Hispanic/Latino 6%  Asian 3%  <u>Marital Status:</u>  Married 94%  <u>Education:</u>  High school or less 32%  College 44%  Post-bachelors 24%</p> <p>Veterans: NR</p> <p><u>Family Characteristics:</u>  Male partners  Age: 45.1 yrs</p> <p><u>Recruitment Method:</u>  Newspaper, radio, TV,  flyers, and pamphlets at  local clinics</p>	<p><u>MH Condition:</u> Depression in heterosexual women  <u>Assessed by:</u> SCI for DSM-IV Axis I Disorders  <u>SO:</u> Male partner  <u>Inclusions:</u> Married or living together for 1+ yrs; both partners 21+ yrs; fluent in English; score <math>\geq 21</math> on BDI-II; women met diagnostic criteria and, if taking concurrent medication for depression, were in individual psychotherapy for <math>\geq 12</math> wks or taking stable dose of medication for <math>\geq 8</math> wks; male partners could not meet diagnostic criteria for depression  <u>Exclusions:</u> Severely discordant couples (DAS of <math>\leq 75</math>); act of infidelity in preceding 6 months or more than 2 acts of physical aggression in preceding year by 1 or both partners; already receiving couples therapy; male partners in individual psychotherapy or on antidepressant medication</p>	<p>1) Treatment (Brief Couple Therapy, BCT) (N = 18 couples)  2) Wait list control (N = 17 couples)</p> <p><u>Randomized:</u>  N = 35 couples</p> <p><u>Analysis:</u>  Post-treatment: N = 30  Final: N = 27</p>	<p><u>Format:</u> Brief Couple therapy  <u>Manualized:</u> Yes  <u>Sessions:</u> 5 (weekly for 2 hours)  <u>Txt Length:</u> 5 weeks with 3 month follow-up evaluation  <u>Approach:</u> combination of psychoeducational and cognitive-behavioral marital therapy</p>	<p><u>Patient Outcomes:</u>  Symptom improvement:  a. BDI-II  b. HAM-D</p> <p><u>Intermediate Outcomes:</u>  None</p> <p>Family Outcomes:  Relationship satisfaction  a. DAS</p> <p><u>Outcome timeframe:</u>  Baseline  Post-treatment  Short term (Final): 3 months</p>	<p><u>Allocation concealment:</u> unclear  <u>Blinding:</u> Yes (treating clinicians and outcome assessors)  <u>Intention to treat analysis:</u> No  <u>Withdrawals adequately described:</u> Yes  <u>Treatment Integrity:</u> session audiotapes coded for therapy adherence and therapist competence  <u>Study quality:</u> Fair</p>

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
<b>EATING DISORDERS</b>						
Gorin, 2003 <sup>115</sup> Foundation	N = 94 <u>Gender</u> : 0% male <u>Age</u> : 45.2 yrs <u>Race/ethnicity</u> : 86% Caucasian <u>Marital Status</u> : NR  Veterans: 0%  <i>Family Characteristics</i> : spouse or cohabiting partner  <i>Recruitment Method</i> : newspaper advertisements	<u>MH Condition</u> : Binge eating disorder <u>Assessed by</u> : DSM-IV research criteria for binge eating disorder <u>SO</u> : spouse or cohabiting partner <u>Inclusions</u> : women; 18-65 yrs, BMI≥25; spouse or cohabiting partner willing to participate <u>Exclusions</u> : engaged in purging behaviors more than 1x/month; met DSM-IV criteria for anorexia nervosa, bulimia nervosa or EDNOS; receiving concurrent treatment for weight loss; currently taking appetite suppressants; pregnancy	1) Standard group cognitive behavioral therapy (CBT-SD) (N = 32)  2) Group CBT with spouse involvement (CBT-SI) (N = 31)  3) Wait-list control group (N = 31)  <u>Randomized</u> : N = 94  <u>Analysis</u> : N = 62 (completed all assessments; no additional information about when withdrawals occurred)	1) <u>Format</u> : Group therapy (patients only) <u>Manualized</u> : Yes <u>Sessions</u> : 12, 90 min each <u>Txt Length</u> : 12 weeks <u>Approach</u> : cognitive behavioral therapy  2) <u>Format</u> : Group therapy (patient and spouse) <u>Manualized</u> : Yes (modified to actively include spouses) <u>Sessions</u> : 12, 90 min each <u>Txt Length</u> : 12 weeks <u>Approach</u> : cognitive behavioral therapy with spouse involvement (attend all group meetings)	<u>Patient Outcomes</u> : Symptom improvement: a. 7-day calendar recall of binges b. EDEQ Patient global functioning a. BDI  <u>Intermediate Outcomes</u> a. Attendance at weekly meetings  <u>Family Outcomes</u> : Couple functioning: a. DAS b. Author-developed 7-point Likert scale - understanding of binge eating, level of agreement about reducing binge eating <u>Outcome timeframe</u> : Baseline Post-treatment Short term (Final): 6 months	<u>Allocation concealment</u> : Unclear  <u>Blinding</u> : Unclear  <u>Intention to treat analysis</u> : completed ITT and found results did not differ from treatment completer analysis; only completer analysis reported  <u>Withdrawals adequately described</u> : 34% of entire sample failed to complete assessments (groups comparable); unclear if other withdrawals  <u>Treatment Integrity</u> : Adherence checklist completed by therapist at the end of each group meeting  <b>Study quality: Fair</b>

Study, Year Funding Source	Sample Characteristics	Inclusion and Exclusion Criteria	Treatment Groups	Intervention	Outcomes Assessed	Quality
<b>SMOKING CESSATION</b>						
McBride, 2004 <sup>118</sup>  Government  NOTE: study conducted at an Army Medical Center	N = 625 Gender: 0% male (enrolled pregnant women) Age: 24 yrs Race/ethnicity: White 77% Marital Status: Married 96%  Veterans: 0%  Family Characteristics: intimate partners  Recruitment Methods: introductory letter sent to all women scheduled for first prenatal visit	MH Condition: smoking Assessed by: self-report via screening survey (telephone) of all women with scheduled first prenatal visit SO: intimate partner Inclusions: ≤20 weeks pregnant, age ≥18 yrs, current smoker or recent quitter (smoker in 30 days prior to pregnancy), living with intimate partner, willing to have partner contacted for participation Exclusions: no additional criteria reported	1) Woman-only (WO) – usual care + late- pregnancy relapse prevention kit, 6 health advisor counseling calls  2) Partner-assisted (PA) – WO + booklet and videos about sup- port behaviors, 6 calls to partner from health advisor, written agree- ment regarding support behaviors, stop smok- ing assistance to part- ner (if appropriate)  3) Usual care – provider advice at first prenatal visit; self-help guide mailed to patient  Randomized: N = 625  Analysis: N = 583 (all randomized except women who miscarried) at all assessment times	1) Format: individual therapy via telephone Manualized: standard protocol Sessions: 6 calls (3 in pregnancy, 3 in post- partum) Txt Length: from first prenatal visit through 4 months post-partum Approach: motivational interviewing 2) Format: individual therapy via telephone (separate calls to woman and partner) Manualized: standard protocol Sessions: 6 calls (3 in pregnancy, 3 in post- partum) Txt Length: not stated Approach: motivational interviewing 3) Format: individual Manualized: not stated (standard self-help guide provided) Sessions: 1 Txt Length: first prenatal visit Approach: provider advice	Patient Outcomes: a. Smoking status: self report of smoking in past 7 days Intermediate Outcomes: a. Smoking-specific support: Partner interaction Questionnaire (10 item version) b. General interpersonal support: 1. emotional support 2. instrumental support Family/Couple Outcomes: NR Outcome timeframe: Baseline (first prenatal visit) Post-treatment: 2-months post- partum Short term: 6-months post-partum Long terms – 12 months post-partum  *Treatment continued to 4 months post- partum	Allocation concealment: Unclear  Blinding: NR  Intention to treat analysis: Yes after excluding patients who miscarried – missing values imputed to be “smoker”  Withdrawals adequately described: Yes  Treatment Integrity: NR  <b>Study quality: Poor</b>

NR = not reported; SCI = structured clinical interviews; SO = significant other or family member included; DSM = Diagnostic and Statistical Manual of Mental Disorders; BDI-II = Beck Depression Inventory 2<sup>nd</sup> Edition; DAS = Dyadic Adjustment Scale; HAM-D = Hamilton Rating Scale for Depression; EDEQ = Eating Disorder Examination Questionnaire; ED-NOS = Eating Disorders Not Otherwise Specified



Table 22. Patient Outcomes - Depression, Eating Disorders, and Smoking Cessation Studies

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>SYMPTOM IMPROVEMENT - DEPRESSION</b>				
Cohen, 2010 <sup>114</sup> 1) Brief Couple Therapy 2) Wait list <i>Completers</i>	BDI-II 1) 31.4 (9.3) N=18 2) 30.2 (11.1) N=17 p=ns	BDI-II 1) 20.3 (13.5) N=16 2) 25.3 (13.9) N=14 p=ns	BDI-II 1) 14.4 (10.6) N=15 2) 26.9 (17.2) N=12 All univariate comparisons: p=ns Hierarchical linear modeling: <b>Effect size d=0.54</b> <b><math>\beta</math>=-0.41, p&lt;0.01</b> <b>Improvement (&gt;50% reduction from baseline)</b> <b>1) 67% 2) 20% p&lt;0.01</b> <b>Recovery (BDI-II&lt;11)</b> <b>1) 40% 2) 8% p&lt;0.01</b>	
	HAM-D 1) 26.9 (6.8) N=18 2) 28.5 (6.9) N=17 p=ns	HAM-D 1) 18.4 (10.8) N=16 2) 26.3 (10.6) N=14 p=ns	HAM-D <b>1) 13.6, (11.4) N=15</b> <b>2) 26.4 (12.3) N=12</b> <b>Univariate: p&lt;0.01</b> Hierarchical linear modeling: <b>Effect size d=0.72</b> <b><math>\beta</math>=-0.47, p&lt;0.001</b> <b>Improvement (&gt;50% reduction from baseline)</b> <b>1) 67% 2) 17% p&lt;0.01</b> <b>Recovery (HAM-D&lt;6)</b> <b>1) 47% 2) 8% p&lt;0.01</b>	

Study, Year Interventions Sample	Baseline	Post-Treatment	Short-term Follow-up	Long-term Follow-up
<b>SYMPTOM IMPROVEMENT – EATING DISORDERS</b>				
Gorin, 2003 <sup>115</sup> 1) Group Cognitive Behavioral Therapy (CBT) with spouse 2) Group CBT 3) Wait List Control* <i>Completers</i>	Days Binged (7-day recall) 1) 3.4 (2.1) 2) 3.8 (1.7) 3) 3.8 (1.8) All comparisons: p=ns	Days Binged (7-day recall) 1) 1.2 (1.8) 2) 1.8 (2.0) 3) 3.0 (1.8) All comparisons: p=ns	Days Binged (7-day recall) 1) 0.7 (0.9) 2) 1.1 (1.4) All comparisons: p=ns	
	Days Binged (EDEQ) 1) 9.6 (6.1) 2) 7.6 (5.7) 3) 8.5 (5.2) All comparisons: p=ns	Days Binged (EDEQ) 1) 3.3 (4.4) 2) 2.4 (2.8) 3) 5.9 (4.6) All comparisons: p=ns	Days Binged (EDEQ) 1) 3.5 (4.6) 2) 1.6 (2.1) All comparisons: p= ns	
<b>SYMPTOM IMPROVEMENT – SMOKING CESSATION</b>				
McBride, 2004 <sup>118</sup> 1) Partner assisted + women-only care 2) Women-only care 3) Usual care <i>All, excluding miscarriages</i>	Current Smoker 1) 46% 2) 45% 3) 46% All comparisons: p=ns	Abstinence 1) 42% 2) 37% 3) 38% All comparisons: p=ns	Abstinence 1) 37% 2) 36% 3) 33% All comparisons: p=ns	Abstinence 1) 35% 2) 32% 3) 29% All comparisons: p=ns
<b>GLOBAL FUNCTIONING – EATING DISORDERS</b>				
Gorin, 2003 <sup>115</sup> 1) Group CBT with spouse 2) Group CBT 3) Wait list control <i>Completers</i>	BDI 1) 20.4 (10.0) 2) 18.7 (8.9) 3) 17.4 (9.9) All comparisons: p=ns	BDI 1) 11.8 (9.4) 2) 14.8 (9.3) 3) 16.8 (9.5) All comparisons: p=ns	BDI 1) 12.2 (9.2) 2) 12.9 (8.1) All comparisons: p=ns	

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted.  
ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach; BDI-II = Beck Depression Inventory – Second Edition; CBT = Cognitive Behavioral Therapy; EDEQ = Eating Disorder Examination Questionnaire; HAM-D = Hamilton Rating Scale for Depression

**Table 23. Family Outcomes - Depression, Eating Disorders, and Smoking Cessation Studies**

Study, Year Interventions Sample	Baseline	Post-treatment	Short-term Follow-up
<b>COUPLE FUNCTIONING – DEPRESSION</b>			
Cohen, 2010 <sup>114</sup> 1) Brief Couple Therapy 2) Wait list <i>Completers</i>	DAS 1) 96.6 (17.4) N=18 2) 90.3 (18.4) N=17 p=ns	DAS 1) 100.6 (20.5) N=16 2) 91.9 (23.5) N=14 p=ns	DAS 1) 102.1,(22.7) N=15 2) 92.9 (19.8) N=12 All univariate comparisons: p= ns Hierarchical linear modeling: <b>Effect size d= 0.43, β=0.55, p&lt;0.01</b>
<b>COUPLE FUNCTIONING – EATING DISORDERS</b>			
Gorin, 2003 <sup>115</sup> 1) Group Cognitive Behavioral Therapy (CBT) with spouse 2) Group CBT 3) Wait list controls <i>Completers</i>	DAS 1) 95.1 (28.0) 2) 98.4 (21.0) 3) 99.0 (19.8) All comparisons: p=ns	DAS 1) 99.1 (24.7) 2) 101.4 (26.0) 3) 100.0 (20.1) All comparisons: p=ns	DAS 1) 99.1 (22.8) 2) 99.2 (23.5) All comparisons: p=ns

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted. ns = not significant (at 5% level); NR = not reported; N/A = not applicable; Completers = findings for analyses conducted only with treatment completers; ITT = findings for analyses using an intent-to-treat approach; CBT = Cognitive Behavioral Therapy; DAS = Dyadic Adjustment Scale

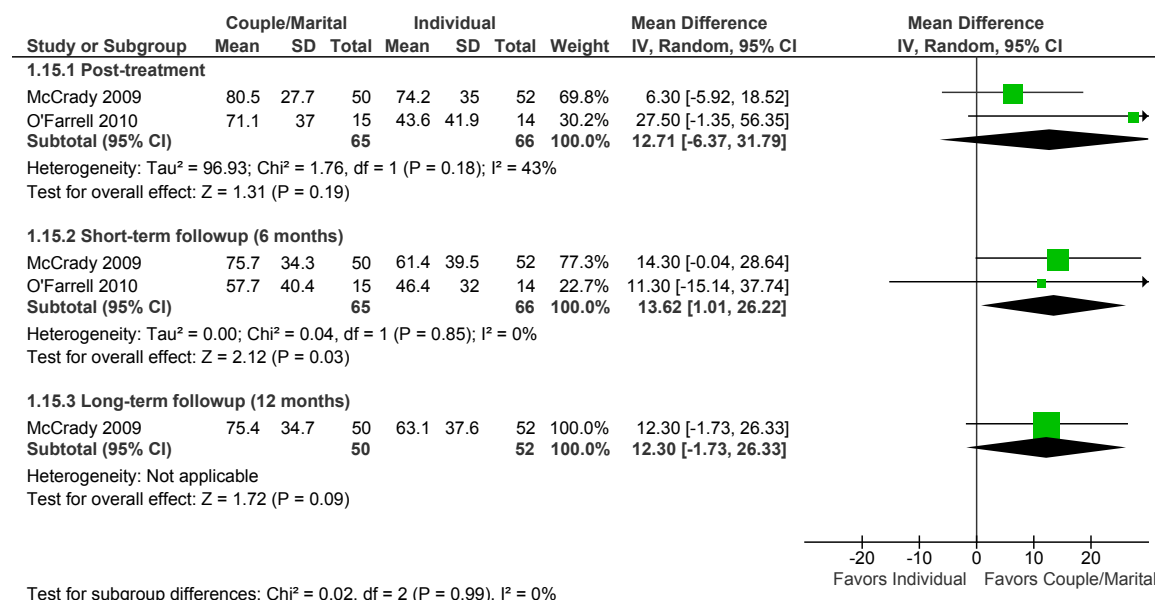
**Table 24. Intermediate Outcomes - Depression, Eating Disorders, and Smoking Cessation Studies**

Study, Year Interventions Sample	Baseline	Short-term Follow-up	Long-term Follow-up
<b>ATTENDANCE – EATING DISORDERS</b>			
Gorin, 2003 <sup>115</sup> 1) Group CBT with spouse 2) Group CBT 3) Wait list controls <i>Completers</i>		At Weekly Meetings Completers (N=62) 1) 9/12 2) 9/12 3) Not applicable p=0.45	
<b>SOCIAL SUPPORT – SMOKING CESSATION</b>			
McBride, 2004 <sup>118</sup> 1) Partners assisted + woman-only care 2) Woman-only care 3) Usual care <i>All, excluding miscarriages</i>		No differences between groups - results not reported by treatment group <b>For all participants</b> <b>Significant linear decline over time for:</b> <b>1) Smoking-specific support (Positive)</b> <b>2) Instrumental support</b> <b>3) Emotional support</b> <b>Significant U-shaped function for:</b> <b>Smoking-specific support (Negative)</b>	

Outcomes reported as mean (standard deviation) unless otherwise noted. Short-term follow up = 6 months post-treatment, unless otherwise noted; Long term=12 months post-treatment, unless otherwise noted. If an outcome had a final measure reported beyond 12 months, it is reported in long term follow up column and noted. Completers = findings for analyses conducted only with treatment completers; CBT = Cognitive Behavioral Therapy

## APPENDIX E. FOREST PLOTS FROM POOLED ANALYSES FOR ALCOHOL AND DRUG USE STUDIES

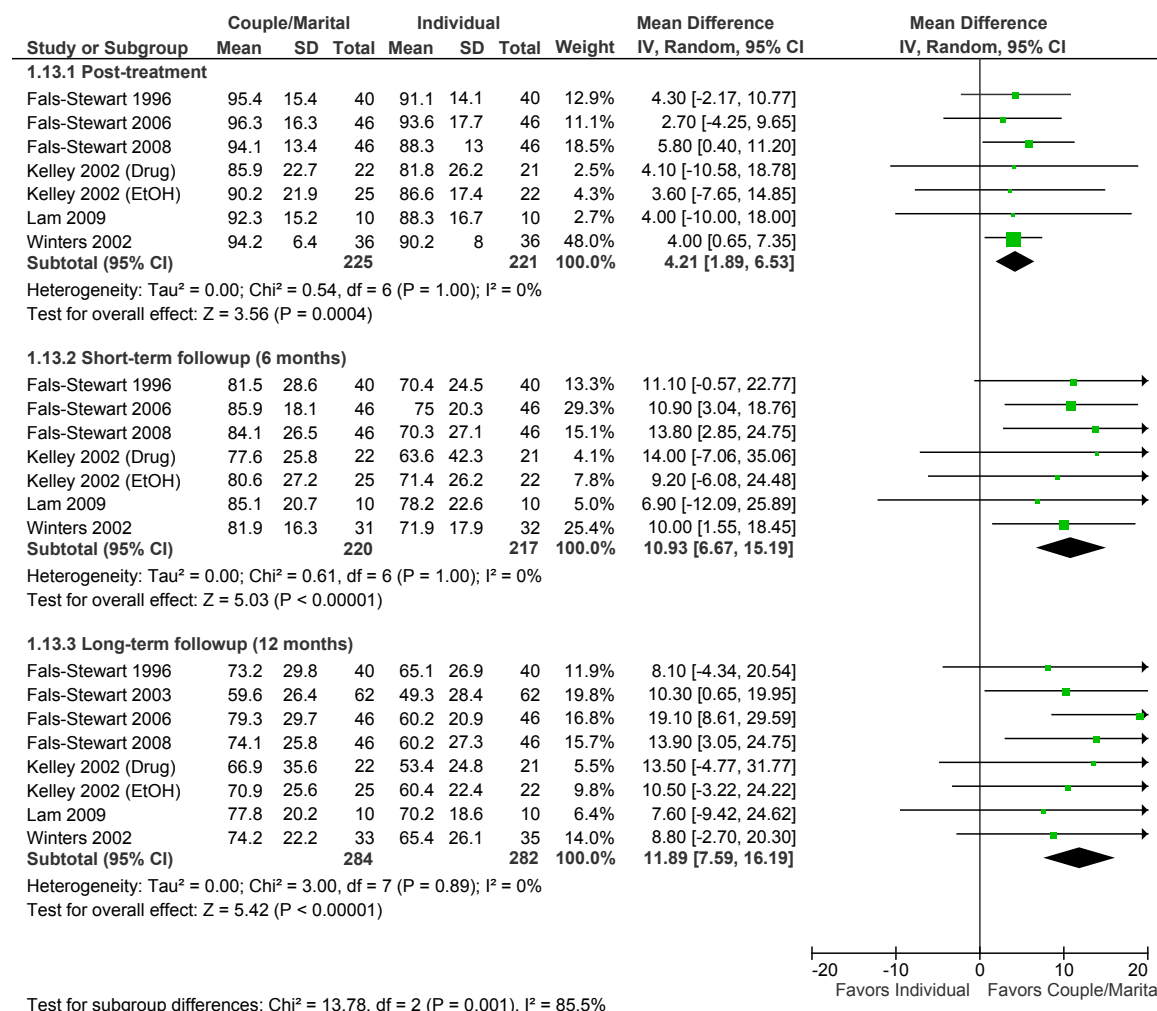
**Figure 1a. Percent Days Abstinent, Differences between BCT and ICBT: Studies Not Conducted with Data from Fals-Stewart.**



\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences. Size of box or diamond reflects sample size.

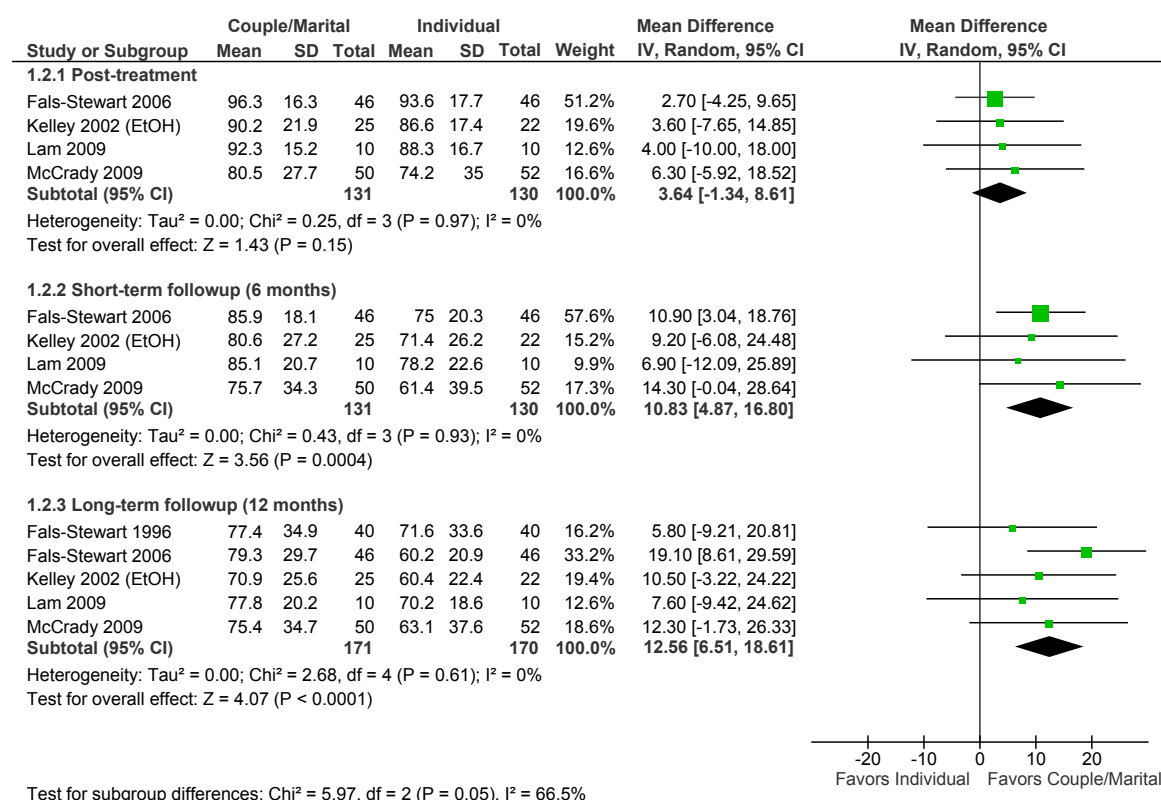
BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy

**Figure 1b. Percent Days Abstinent, Differences between BCT and ICBT: Studies Conducted with Data from Fals-Stewart.**



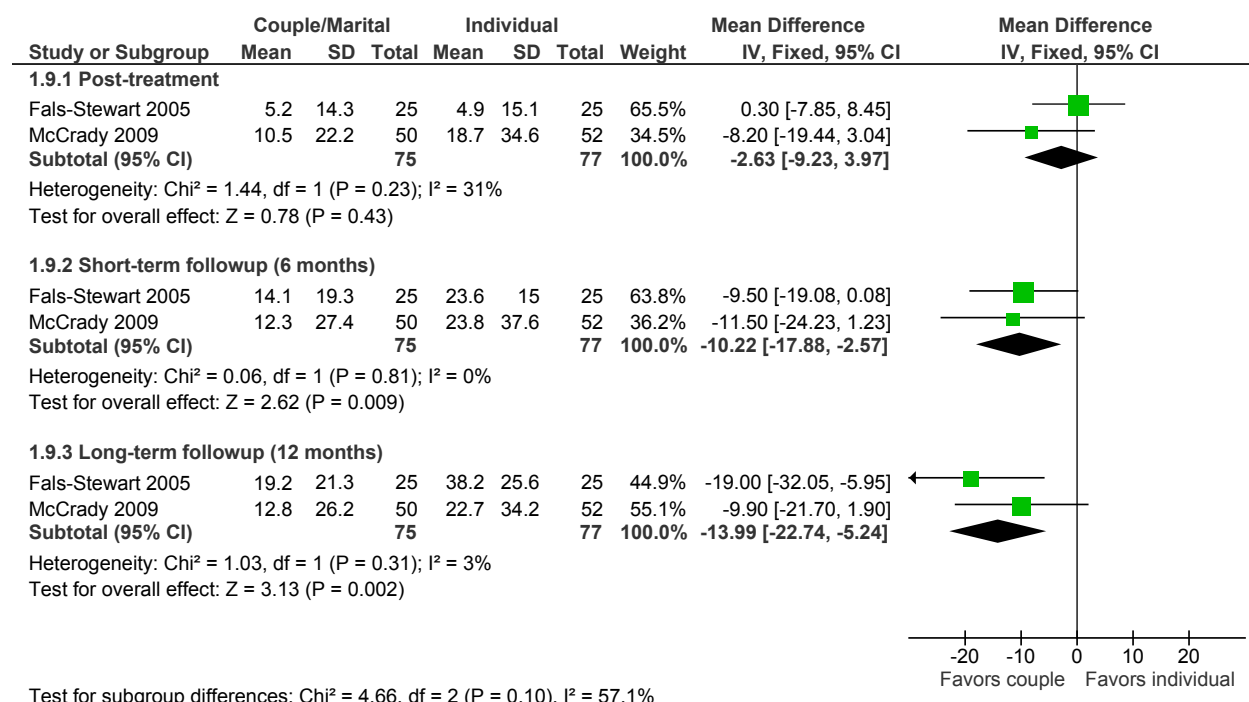
\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences. Size of box or diamond reflects sample size.  
BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy; EtOH = alcohol

**Figure 2. Percent Days Abstinent, Differences between BCT and ICBT: Alcohol Use Disorder Studies Only**



\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences. Size of box or diamond reflects sample size.  
BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy; EtOH = alcohol

**Figure 3. Percent Days Heavy Drinking, Differences between BCT and ICBT: Alcohol Use Disorder Studies Only**

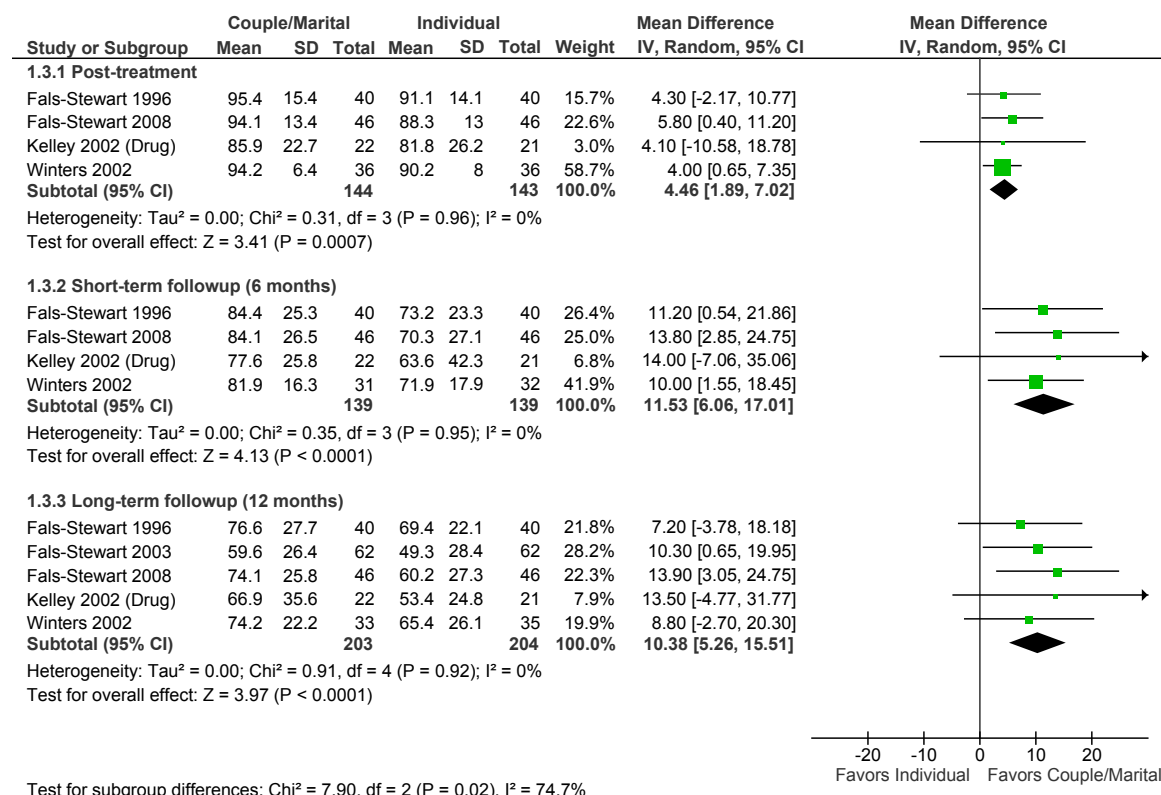


\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences.

Size of box or diamond reflects sample size.

BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy

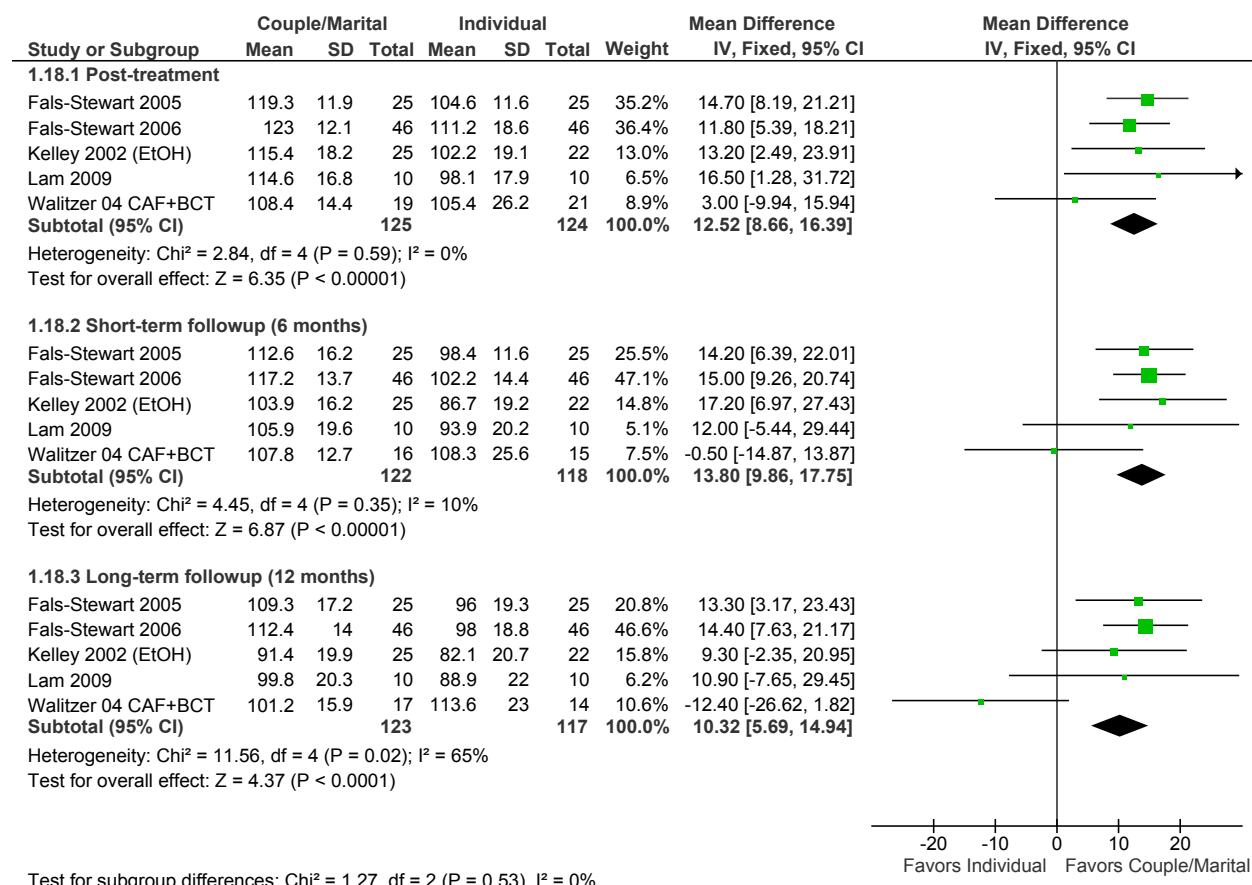
**Figure 4. Percent Days Abstinent, Differences between BCT and ICBT: Drug Use Disorder Studies Only**



\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences. Size of box or diamond reflects sample size.  
BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy

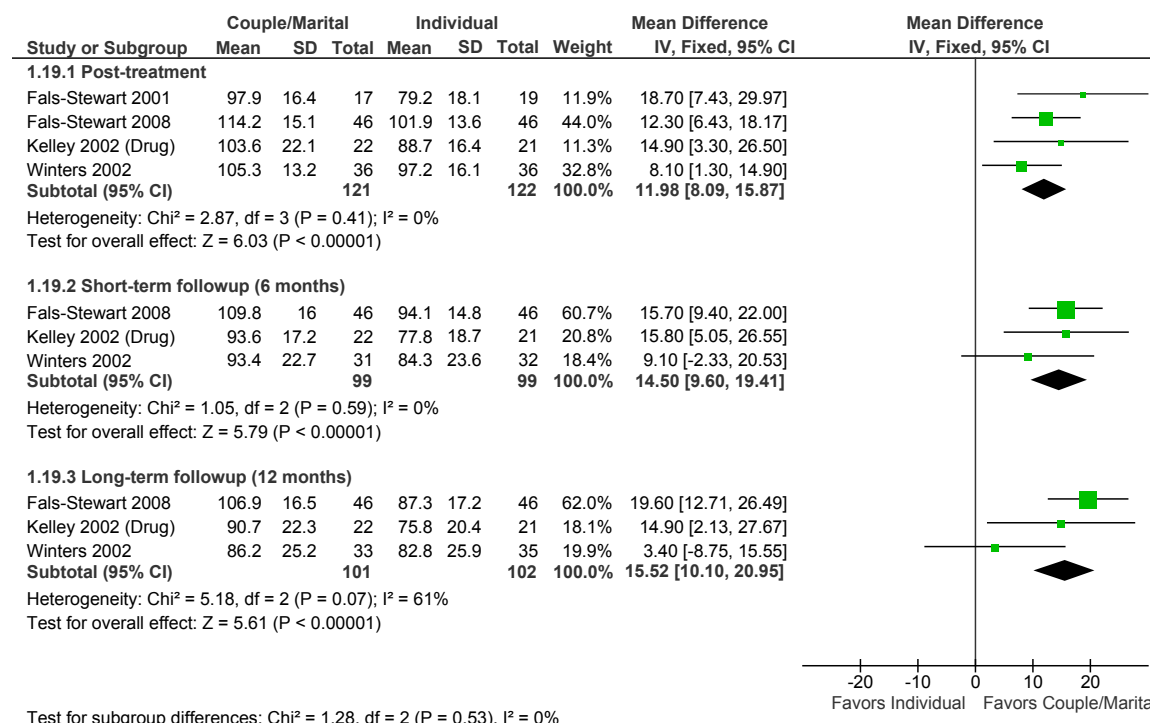


**Figure 5. Relationship Adjustment using Dyadic Adjustment Scale, Difference in Mean Scores between BCT and ICBT: Alcohol Use Disorder Studies Only**



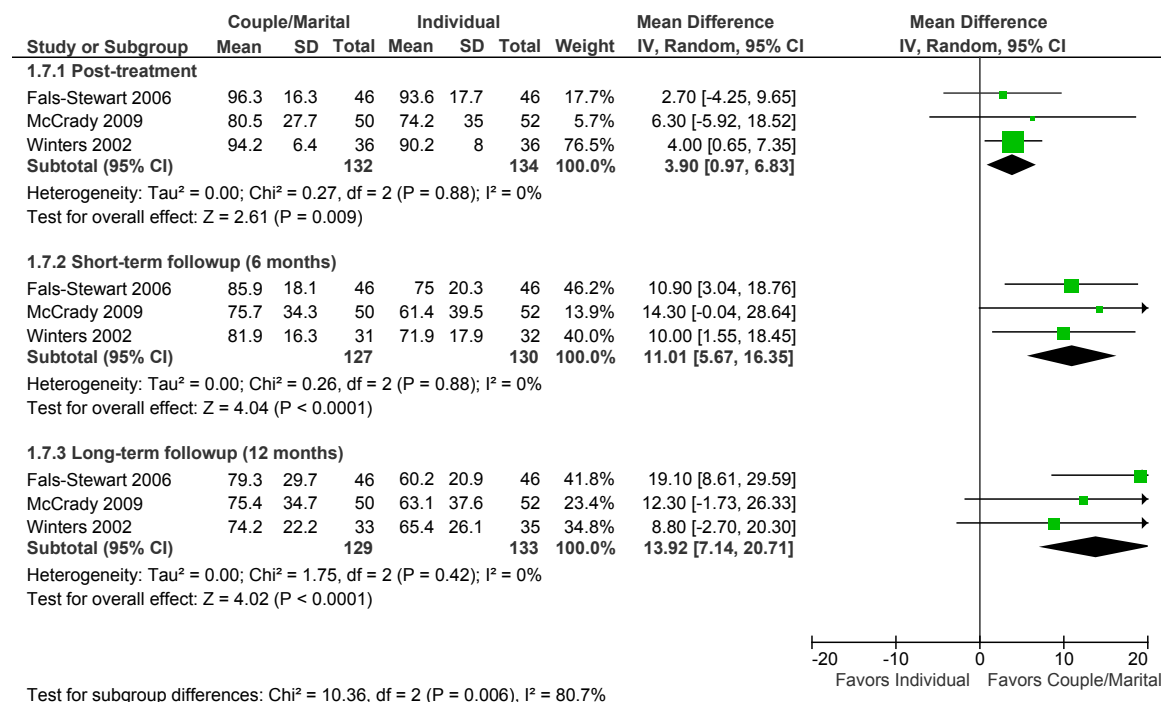
\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences. Size of box or diamond reflects sample size.  
BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy; EtOH = alcohol

**Figure 6. Relationship Adjustment using Dyadic Adjustment Scale, Difference in Mean Scores between BCT and ICBT: Drug Use Disorder Studies Only**



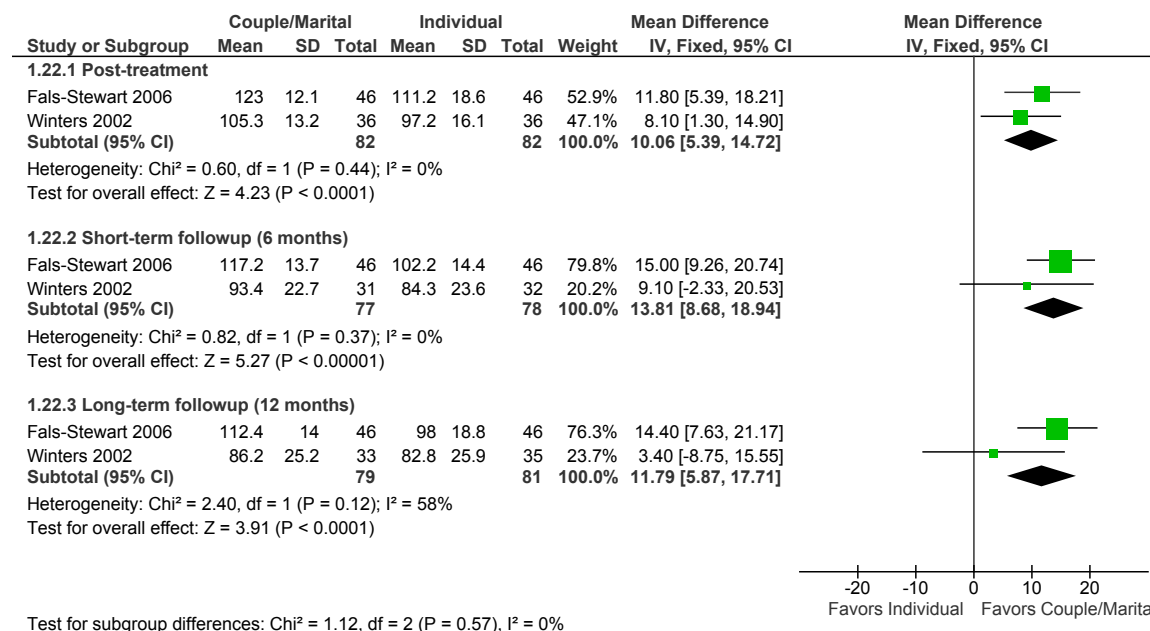
\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences. Size of box or diamond reflects sample size.  
BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy

**Figure 7. Percent Days Abstinent, Differences between BCT and ICBT: Studies with Female Subjects Only**



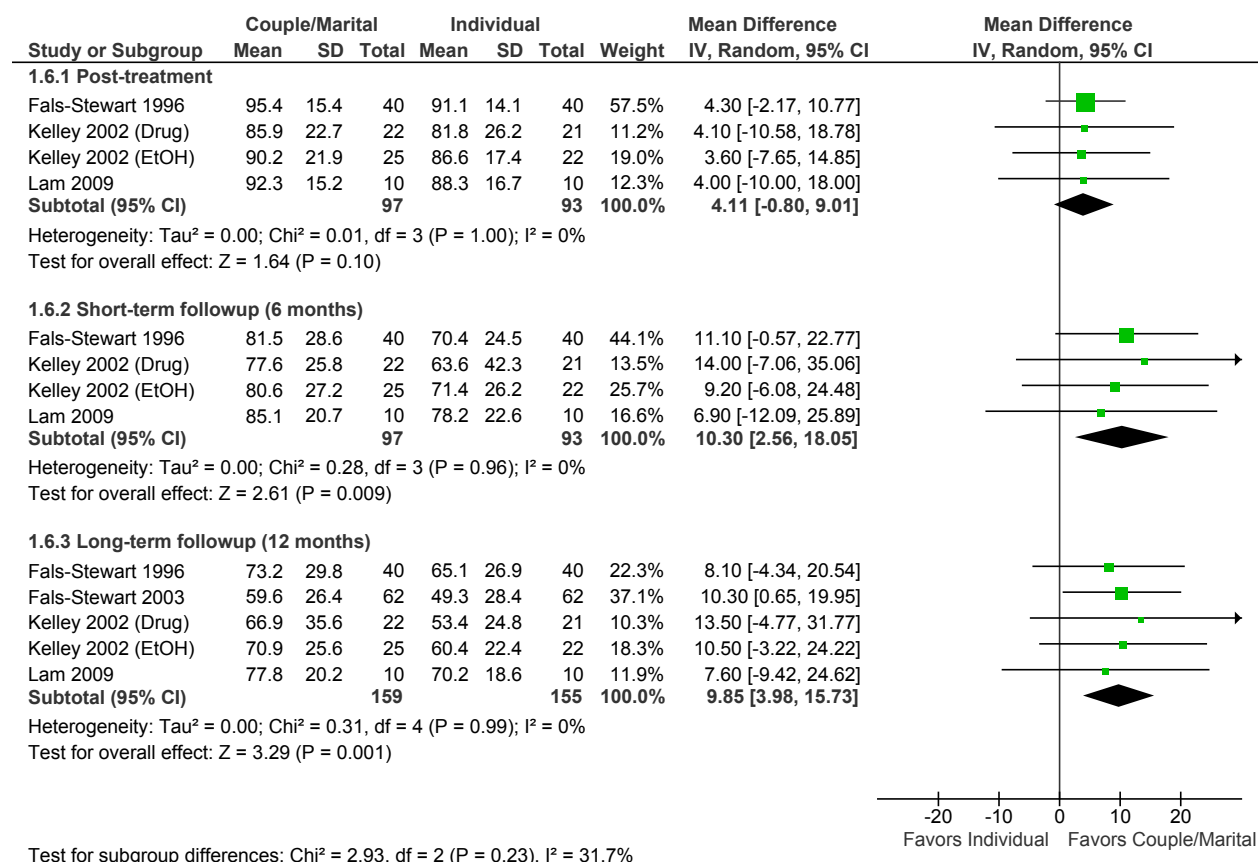
\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences. Size of box or diamond reflects sample size.  
BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy

**Figure 8. Relationship Adjustment using Dyadic Adjustment Scale, Difference in Mean Scores between BCT and ICBT: Studies with Female Subjects Only**



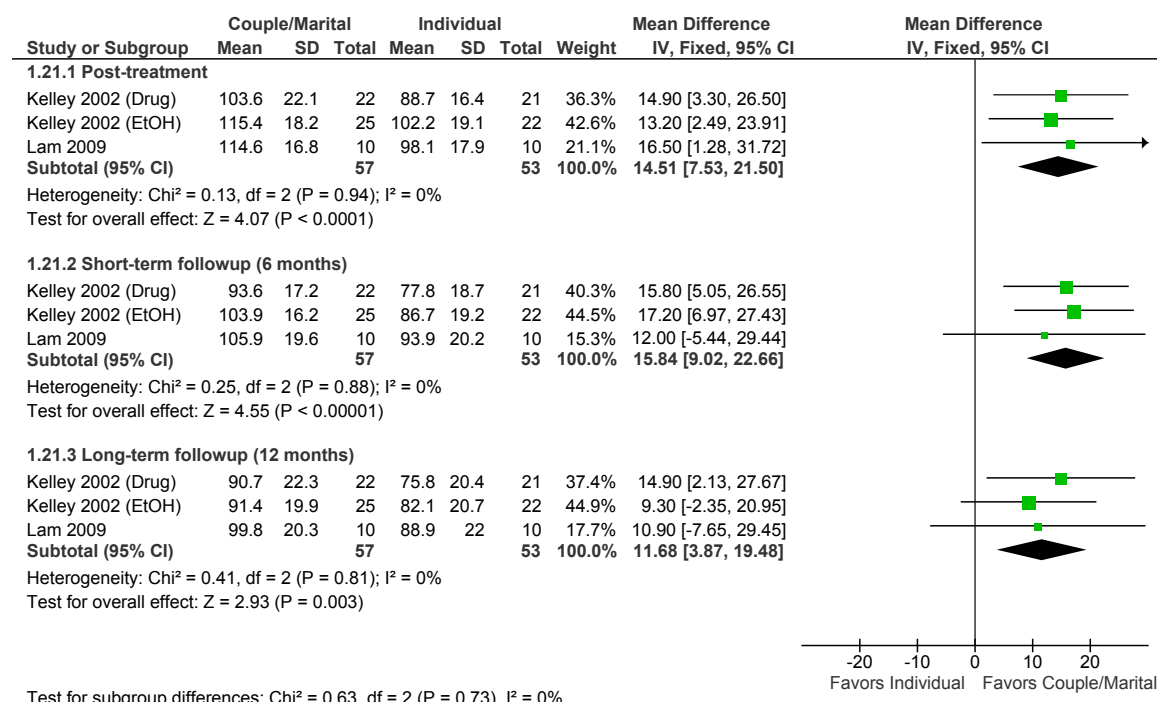
\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences. Size of box or diamond reflects sample size.  
BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy

**Figure 9. Percent Days Abstinent, Differences between BCT and ICBT: Studies with Male Subjects Only**



\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences. Size of box or diamond reflects sample size.  
BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy; EtOH = alcohol

**Figure 10. Relationship Adjustment using Dyadic Adjustment Scale, Difference in Mean Scores between BCT and ICBT: Studies with Male Subjects Only**



\*Horizontal bars for each study represent the study's confidence interval. Confidence intervals extending below 0 indicate non-significant differences. Size of box or diamond reflects sample size.

BCT = Behavioral Couple or Marital Therapy; ICBT = Individual Cognitive-Behavioral Therapy; EtOH = alcohol