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## Couple Therapy for Intimate Partner Violence: A Systematic Review and Meta-Analysis

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### Abstract

Intimate partner violence is a serious public health problem accompanied by substantial morbidity and mortality. Despite its documented impact on health, there is no widely recognized treatment of choice. Some studies indicate that couples suffering from situational violence may benefit from couples therapy, but professionals are cautious to risk the possibility of violent retaliation between partners. After a comprehensive literature search of 1733 citations, this systematic review and meta-analysis compiles the results of six studies to investigate the effectiveness of couple therapy as a treatment for violence. Preliminary data suggest that couples therapy is a viable treatment in select situations.

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Intimate partner violence (IPV) is a prevalent problem that has serious adverse effects on human wellbeing. According to the National Violence Against Women Survey (NVAWS), each year about 4.7 million intimate partner victimizations occur among women in the United States (Black et al., 2010). Data from the same survey indicate that a quarter of women experience severe violence, with 50% suffering physical injury. The consequences of violence on victims' wellbeing range from acute physical injuries to long term mental and physical health consequences (CDC, 2003; Karakurt, Smith, & Whiting, 2013). Physical injuries due to violence could be mild, but are sometimes severe and even lethal (Campbell, 2002). Studies have indicated that in 2007 alone, over 1600 women died as a result of IPV victimization (Catalano, Smith, Snyder, & Rand, 2009). Furthermore, costs of IPV to society are extensive. A 2003 estimate calculated the total monetary cost of IPV against women in the United States to be close to \$5.8 billion per year, on top of the unquantifiable toll it takes

on individuals' relationships, communities, quality of life, and well-being (NCIPC, 2003). This does not even include the costs associated with IPV against men.

Victims of IPV often exhibit comorbid conditions, including mental health issues like depression/anxiety and suicide attempts, as well as substance abuse, gastrointestinal disorders, and gynecological/pregnancy related issues (Black et al., 2010). There is a serious unmet need in the treatment of IPV, with many programs neglecting the subset of victims/perpetrators who wish to remain together. Many programs designed to prevent intimate partner violence solely target male offenders (Babcock & La Taillade, 2000) by providing gender-specific group therapy or individual treatments, while domestic violence shelters and other facilities traditionally support only female victims by offering therapy, support groups and educational programs. However, findings on batterer intervention programs indicate that these programs do not work as well as expected (Dobash, Cavanagh, & Lewis, 1996), with programs often experiencing high dropout rates and sometimes even having unwanted consequences (Babcock & LaTaillade, 2000; Mankowski, Haaken, & Silvergleid, 2002) such as the normalization of aggressive behaviors and antisocial peer influences (Murphy & Meis, 2008; Smith, 2007).

As an alternative approach to gender-specific therapy, however, controversy exists about whether couple therapy is appropriate, effective or even safe in treating potentially violent couples (Goldner, Penn, Sheinberg, & Walker, 1990). Clinical trials show that couple therapy functions on a systemic level (individual, couple, societal and intergenerational) and is effective when treating couples with dysfunctional relational patterns (Lam, Fals-Stewart, & Kelley, 2009). The relationship patterns which have shown improvement as a result of couple therapy have involved a myriad of dysfunctional qualities, including communication difficulties (Baucom, Sevier, Eldridge, Doss, & Christensen, 2011; Christensen, Atkins, Yi, Baucom, & George, 2006), conflict management issues (Davidson & Horvath, 1997), sexual problems (Clement & Schmidt, 1983; Dekker & Everaerd, 1983), and relationship complications (Cohen, O'Leary, & Foran, 2010), among other diverse concerns (Monson, Fredman, Macdonald, Pukay-Martin, Resick, & Schnurr, 2012).

Despite evidence supporting couple therapy, there has been little research on when this type of treatment is appropriate and advisable. It's possible that the key to effectively treating couple violence lies in accurately classifying the violence in order to facilitate the prescription of specifically tailored therapies. Gender-specific group therapy (Tolman & Edleson, 1995) is viewed as the standard treatment for IPV, even for couples experiencing situational violence (minor incidents initiated by both men and women), despite high drop-out rates (Babcock & LaTaillade, 2000), uncertain efficacy, and emphasis on inherent male fault. Clinicians, case workers and some researchers are concerned that talking about sensitive topics in couple therapy sessions results in increased tension, which in turn creates a risk of intimate partner violence for the victims as well as the worry of a violent retaliation after a session (Adams, 1988; Bograd, 1984; Saunders, 1986). As a result of these concerns, couples therapy is often deemed inappropriate for potentially violent couples and discouraged in the absence of solid findings. However, based on previous empirical evidence and theory there is reason to believe that couple therapy may provide an integral tool for treating situational violence among couples who do not wish to separate. Therefore, the aim

of this study is to conduct a systematic review and meta-analysis to determine the effectiveness of couple therapy in reducing violence in relationships.

## Systematic Review and Meta-analysis Methodology

A systematic review and meta-analysis can be described as a method for systematically searching the literature and combining relevant study data from included studies to develop a single conclusion with greater statistical power. This is especially useful when analyzing interventions where there is lack of consensus, controversy, or small sample size (Higgins & Green, 2011). Meta-analysis is the process by which findings of existing studies are combined into an integrative statistical framework. This is particularly useful with interventions focused on IPV, where the numbers in each study are relatively small, limiting the power to detect differences when they do exist. We therefore conducted a systematic review and meta-analysis of couple therapy to better understand the effect of these interventions on IPV and violence recidivism. For this review, we were specifically interested in whether couple therapy can help some couples in reducing violence in their relationships. In this study, systematic review and meta-analysis was conducted by following the Cochrane Handbook for Systemic Reviews of Interventions guidelines (Higgins & Green, 2011). These guidelines describe the process of conducting high quality systematic reviews and meta-analyses in detail.

## METHODS

### Identification of Studies

A systematic review of the literature is conducted prior to conducting meta-analyses in order to reduce bias in the included studies. Researchers decide on the Populations, Interventions, Comparisons, Outcomes, Time and Settings (PICOTS) prior to the meta-analysis to prevent bias in the process. By identifying the PICOTS before finalizing the search strategy, the search of the literature is consistent across studies. We conducted a systematic review evaluating the effect of couples therapy on violence reduction for adult couples suffering from IPV. We developed inclusion and exclusion criteria using the PICOTS framework as follows: *Population*: Adult couples who are suffering from couple violence; *Intervention*: Couple therapy; *Comparison*: Couple therapy vs individually oriented therapy/or no treatment control; *Outcomes*: Reduction in violence; *Time*: Any follow-up period greater than 30 days; *Setting*: Outpatient.

We ran an electronic search in February of 2015 for any articles containing the keywords “violence” and some combination of “couples or couple or marital” with “counseling or therapy or treatment” in PubMed, Ebsco/Host (CINAHL Plus, PsycINFO, Humanities International Complete, and Women’s Studies International), and Cochrane Library. Since the query systems categorize abuse as a form of violence and nest those results under the broader umbrella of violence results, searching for violence actually identified more studies than searching for abuse and other related terms would have identified. The team consulted a librarian before finalizing our search strategy. A hand search of the references of included articles and references from review articles identified during our electronic search was completed. This enhances the likelihood of identifying all relevant existing studies for

inclusion, and makes it possible for other researchers to replicate the search to acquire similar data to test reliability.

Two team members first reviewed each of the titles, then the abstracts and finally the full articles. The exclusion criteria were as follows for the title and abstract review phase: no original data, subjects under 18 years of age, no couple's violence, no couple therapy intervention, follow up less than 30 days after intervention ended, or no relevance to the key question. Discrepancies were decided by a third author. Finally, an article review was completed by two team members. For the full article review, exclusion criteria were expanded to the following: studies that did not use validated measures, articles that were not peer-reviewed (i.e. newspaper articles and dissertations), articles not in English, and articles with no comparison group (such as case studies). Conflicts were again decided through discussion and consensus among team members. We did perform a hand search of references from articles identified by our queries in the systematic review that did not meet our inclusion criteria (generally they were not RCTs) but that were relevant to our investigation to identify additional studies. Unfortunately, all of the studies that seemed promising from this hand search ended up being excluded due to our strict inclusion criteria. We did not search conference abstracts since conference findings often report preliminary results which may change with final publication. We did not hand search specific violence-focused journals since these journals typically reporting on the IPV studies are up to date in the electronic databases.

It should be noted that while there may be merits to including unpublished works like dissertations, theses, and conference presentations, these have not undergone the rigors of the peer review process, and we cannot confidently validate their methods and results within the scope of this project. Thus, in an effort to maintain a high level of quality control and ensure that all studies incorporated into this meta-analysis can stand up to the highest levels of scrutiny, we did not feel comfortable including these types of works at this time.

## Data Collection

For each article, two of the team members abstracted the data independently using standardized data abstraction forms for study design, population, intervention, outcomes, and quality. For this study, outcomes that were extracted include violence recidivism, number of sessions, type of treatment, and settings in which the treatment occurred. For continuous outcome measures, such as those provided by the conflict tactics scale (Strauss, Hamby, Boney-McCoy & Sugarman, 1996) (commonly used scale for intimate partner violence research), the mean difference between groups and a measure of dispersion are extracted. If the between-group differences are not reported, the point estimate of the difference is calculated using the mean difference from baseline for each group. If the mean difference from baseline is not reported, available information is used to calculate this from the baseline and final values for each group (Higgins & Green, 2011). If there are no measures of dispersion for the mean difference from baseline for each group, the variance is calculated using the standard deviation of the baseline and final values, assuming a correlation between baseline and final values of 0.5. For dichotomous outcomes such as violence and no violence, the number and percent of events pre- and post- intervention are

abstracted. It is common in the literature for studies to report findings differently or occur in different populations, so heterogeneity is tested for to see whether or not the studies are homogenous enough to be pooled together. Data were then entered into MIX for meta-analysis software using Excel platform (Bax, Yu, Ikeda, Tsuruta, & Moons, 2006) and checked for any conflicts. Conflicts were discussed until a consensus was reached.

The quality of the studies included in the meta-analysis because sometimes results of meta-analysis are used for recommendations. There are several validated scales that are used to measure quality, depending on the type of study undergoing data abstraction. The Newcastle Ottawa Scale (Wells, Shea, O'Connell, Peterson, Welch, Losos, & Tugwell, 2010) is appropriate when measuring the quality of non-randomized studies, while observational studies' quality is often assessed with the Cochrane Risk of Bias tool (Armijo-Olivo, Stiles, Hagen, Biondo, & Cummings, 2012), which can be used for randomized and non-randomized studies. In this study, the quality of the studies included was measured in two ways. First, we completed the Cochrane Intervention Studies Scale (Armijo-Olivo, Stiles, Hagen, Biondo, & Cummings, 2012) for randomized controlled trials and the Newcastle Ottawa Scale (Wells et al., 2010) for observational studies. Second, two reviewers independently assessed the quantity of studies, study limitations, directness, consistency, precision, and publication bias across the studies using the GRADE criteria to understand any effects that the quality of evidence across studies may have had on our findings (GRADE Working Group, 2004).

We abstracted outcomes relating specifically to IPV changes among intervention and control groups. Changes in IPV were characterized by Male-to-Female violence frequency at pre-test and follow-up, recording mean and standard deviation values. In instances where both partners reported on the violence level, the higher values were used for analysis, as is consistent with general practice in this area of study. Violence frequency measures varied by study (though adapted from the Conflict Tactic Scale), using either the Modified Conflict Tactics Scale (mCTS), Revised Conflict Tactics Scale (CTS2), or Timeline Follow-Back Interview – Spousal Violence (TLFB-SV). All scales have been peer reviewed for validity.

### **Data Synthesis and Analysis**

At the article review level, we identified a number of articles which reported on follow-up studies; these were aggregated with the original study. We created a set of detailed evidence tables. We conducted meta-analyses when there were sufficient data (from at least three studies) and studies were sufficiently homogenous with respect to key variables (population characteristics, study duration, and intervention characteristics). For studies having more than one arm, we chose the arm for inclusion that had the intervention most consistent with the other included studies in the meta-analysis. When more than one follow up interval was reported, we used the data from the follow up most similar to the other studies, in this case using a 12 month follow-up. Several of the studies involved multiple intervention groups. For our analysis, we used only one intervention group and one comparison group to reduce variability and to maintain independence of studies as required in a meta-analysis. For the experimental group, we prioritized selecting the interventions that involved individual couple therapy, followed by utilizing data from conjoint group couples therapy when

necessary. Since our primary goal is to examine the efficacy of couple therapy as a treatment, we chose to prioritize no-treatment controls as the comparison group, followed when necessary by using individual therapy data and then gender specific group therapy data. This was in an effort to minimize artifacts of comparing couples therapy to other forms of therapy. We evaluated heterogeneity among the studies considered for quantitative pooling with an I-squared statistic and considered an I-squared value > 50% to indicate high statistical heterogeneity (Higgins, Thompson, Deeks, & Altman, 2003). Meta-regressions are conducted when there are sufficient data and when studies are sufficiently homogenous with respect to key variables (population characteristics, study duration, and intervention type). The heterogeneity among the studies considered for quantitative pooling is tested using a standard chi-squared test, using a significance level of alpha less than or equal to 0.10. Heterogeneity among studies is also examined with an I-squared statistic, which describes the variability in effect estimates that is due to heterogeneity rather than random chance. Higgins, Thompson, Deeks and Altman (2003) consider a value greater than 50% to indicate substantial heterogeneity. The mean difference between groups is pooled using a random-effects model with the DerSimonian and Laird formula if there is substantial heterogeneity (DerSimonian, 1986). Stratified analysis or meta-regression is conducted if results indicate significant heterogeneity. We pooled the mean difference between groups in IPV using a random-effects model to account for any between-study heterogeneity (DerSimonian & Laird, 1986). Data analysis utilized MIX for meta-analysis software (Bax, Yu, Ikeda, Tsuruta, & Moons, 2006). Publication bias was assessed using funnel plots and Egger's test (Egger et al., 1997). Study weighting is the inverse variance method; therefore, it takes into account the standard deviation as well as the sample size.

### Quality of Studies

The quality of evidence is the degree to which we can be assured that an estimate of the found effect is valid. The quality of the included studies is measured using validated quality scales. There are several validated scales that are used to measure quality, depending on the type of study undergoing data abstraction. The Newcastle Ottawa Scale (Wells, Shea, O'Connell, Peterson, Welch, Losos, & Tugwell, 2010) is appropriate when measuring the quality of non-randomized studies, while observational studies' quality is often assessed with the Cochrane Risk of Bias tool (Armijo-Olivo, Stiles, Hagen, Biondo, & Cummings, 2012), which can be used for randomized and non-randomized studies.

### Strength of a Recommendation

The strength of a recommendation is the degree to which we can be assured that adherence to the recommendation will benefit rather than do harm (GRADE, 2004). In a systematic review and meta-analysis, we follow certain steps to improve judgements in the decision making process on which outcome is critical, and the overall quality of the decisions (randomized clinical trials are the gold standard). All of these judgments, recommendations, and the balance between harm and benefit depend on having a clearly defined question and considering potential outcomes that are likely to be affected. In this study, strength of a recommendation is measured using the GRADE criteria (GRADE, 2004).



## Results

### Identification of Studies

After boolean searching PubMed, Ebsco/Host, and Cochrane Library, we initially identified 1733 unique citations (Figure 1). We then systematically screened for relevance, first by title and then by abstract, which left us with 119 full text articles to examine for eligibility. Of these, 108 articles were excluded by at least two reviewers. This left 11 articles to be included in the systematic review. Since several articles were longer follow-ups of the same study, we ended up including a total of 6 studies for our quantitative synthesis.

### Study Characteristics and Quality

The included studies were all randomized control trials conducted in person in the US without any pharmaceutical interventions. Four studies utilized individual couple therapy as the intervention, one study utilized conjoint group therapy, and one study used a combination of both. For the comparison groups, two studies used a no treatment control, two used gender specific individual therapy, and two used gender specific group therapy. (Table 1)

All of the studies measure the level of Intimate Partner Violence among couples, usually noting mean and SD of violence frequency. Two studies used the Revised Conflict Tactics Scale (CTS2), one used the Modified Conflict Tactic Scale (mCTS), and three used the Timeline Followback Interview – Spousal Violence (TLFB-SV). All of the studies measured Male-to-Female violence scores (two also recorded frequency of minor male violence and three recorded severe male violence frequency). Five studies reported Female-to-Male violence scores (two of which also recorded frequency of female minor and severe violence), and one study also reported total couple violence frequency. Additionally, two of the studies examined the efficacy of couple therapy for reducing IPV specifically among substance abusing populations.

Reporting of demographic data varied across the studies, but all of them provided details regarding average age and racial identification. In the 1998 study conducted by Schlee, Heyman, and O’Leary, the mean age of male partners was 38.4 years and the mean age of female partners was 36.24 years; almost all of the participating couples were Caucasian (~96%), with 2.7% identifying as African American. Of couples who participated in the Stith et al. study (2004), 63% were Caucasian and 25% were African American. Average ages for the male and female partners were 38.3 years and 35.6 years, respectively. In the study conducted by Fals-Stewart and colleagues in 2006, approximately 55% of couples described themselves as Caucasian and 33% described themselves as African American; mean age was 35.92 years for the male partners and 32.41 years for the female partners. The 2002/2009 study conducted by Fals-Stewart and colleagues involved approximately 69% Caucasian couples and 18% African American couples. Male partner mean age was 33.1 years and female partner mean age was 31.8 years. In 2009, Lam et al. conducted a study where the average ages of male and female partners were 34.4 years and 32.95 years, respectively; 63% of the couples identified as Caucasian, while 20% identified as African American. The Bradley et al. studies (2011, 2012, and 2014) involved male partners with an

average age of 35 years and female partners with an average age of 34 years. 83% of the couples identified themselves as Caucasian, and 14.5% identified themselves as African American (it should be noted that in this study, participants could select multiple racial descriptors). Overall, couples who participated in studies included in this meta-analysis had a mean age of 34 years, with approximately 70% of couples identifying themselves as Caucasian and approximately 21% of couples identifying themselves as African American. All of the studies involved heterosexual couples. None of the studies identified any demographic variables as having any correlation with outcome variables.

After two reviewers separately assessed the studies included in this meta-analysis, we determined that all were moderate to high quality (Figure 2). Attrition bias seemed to be the most problematic issue overall, as most of the researchers did not provide information about drop-out characteristics. It is unclear if this would have influenced reported results, and thus changed our effect sizes. We encourage future studies to provide as much information as possible about withdrawals in an effort to improve study quality and more accurately and completely represent findings.

### **Descriptive Analysis of Included Studies**

We provide a brief description of each of the six included studies. In 1998, Schlee, Heyman, and O'Leary conducted a study on violent couples investigating the differences in outcomes between couples who participated in a conjoint group therapy program, Physical Aggressive Couples Treatment (PACT), versus couples who participated in gender specific group therapy. After analyzing the data in 1999 (O'Leary, Neidig, and Heyman) and 2006 (Woodin and O'Leary), both interventions demonstrated violence reduction at follow-up, but the only significant differential effect of treatment type that was identified revealed more improvement on marital adjustment among husbands in conjoint treatment. Predictors of recidivism did not vary by treatment. The results of a 2004 study conducted by Stith, Rosen, McCollum and Thomsen showed benefits of conjoint group therapy over gender specific group therapy for male violence recidivism and aggression levels, but did not identify a similar effect among the participants of individual couple therapy (although both conjoint treatment programs showed lower recidivism rates than gender specific treatment, according to female partner reports at 2 year follow-up). In 2006, Fals-Stewart and colleagues examined the efficacy of couple therapy when treating alcoholic females, and found that participants in behavioral couples therapy (BCT) showed significantly greater improvement in dyadic adjustment than participants in either individual-based treatment (IBT) or PACT, with couples who went through BCT reporting higher dyadic adjustment and reduced partner violence at follow-up. Fals-Stewart and Clinton-Sherrod conducted a similar study in 2009 involving substance abusing men and their partners, comparing IBT with BCT. Participants in BCT reported significantly lower levels of IPV and substance use at follow-up compared to the IBT group, and treatment assignment appeared to be a significant moderator of the day-to-day relationship between IPV and substance use. In a 2009 pilot study investigating the effects of another form of treatment, Parent Skills with Behavioral Couples Therapy (PSBCT), Lam, Fals-Stewart, and Kelley compared PSBCT to BCT and IBT to assess its effect on parenting, relationship conflict, and substance abuse in family and dyad relationships. They found that BCT showed clinically meaningful effects over IBT for



treating substance use, reducing partner violence, and improving dyadic adjustment. In 2012, Bradley and Gottman implemented the Creating Healthy Relationships Program (CHRP), which is a couple and relationship education program designed to reduce IPV in low income situationally violent couples. Results showed that participation in CHRP is associated with higher rates in attitudes that reflected healthy relationship skills as well as a reduction in IPV for follow up. Meta-analysis of the study data described above has revealed a modest but significant positive effect resulting from the use of couple therapy as a treatment for IPV, as explained next.

### Meta-Analysis of IPV Reduction

Our meta-analysis results indicate that intimate partner violence can be significantly reduced through the application of couple therapy when compared to an active comparator or no treatment control (weighted mean difference  $-0.84$ ; 95% confidence interval of  $-1.37$  to  $-0.30$ ) (Table 2, Figure 4). Further testing revealed that the studies included in the analysis have low heterogeneity (Figure 4), so are suited to pooling for accurate treatment comparison. Specifically, after evaluating the heterogeneity of the included studies, we determined a  $Q$  value of 2.38 ( $P = .79$ ), with  $I^2$  statistic equal to 0.00% (confidence interval 0.00% – 74.62%). Inter-trial variance value  $t^2$  was also 0 (confidence interval 0 – 1.75), and the ratio of generalization of Cochran's heterogeneity statistic  $H$  equals 1 (confidence interval 1 – 1.99). Thus, overall heterogeneity between studies is deemed to be low. Our data were heavily influenced by a single study due to its large sample size and smaller inter-individual heterogeneity relative to the other studies. However, effect sizes of most of the other studies were similar to this one larger study. A sensitivity analysis where we remove the largest study shows similar effects but loses statistical significance. Given that all effect sizes are in the same direction, we anticipate that further work will likely solidify this early evidence. We decided to keep this study because it passed all of the exclusion criteria, it is relatively high quality, and we used only the follow up data. In short, evidence is classified into four categories: (1) "high" grade (indicating high confidence that the evidence reflects the true effect, and further research is unlikely to change our confidence in the estimate of the effect); (2) "moderate" grade (indicating moderate confidence that the evidence reflects the true effect, but further research could change our confidence in the estimate of the effect and may change the estimate); (3) "low" grade (indicating low confidence that the evidence reflects the true effect, and further research is likely to change our confidence in the estimate of the effect and is likely to change the estimate); and (4) "insufficient" grade (indicating evidence is unavailable or the body of evidence has unacceptable deficiencies, precluding reaching a conclusion). According to the GRADE criteria, we determined that the strength of evidence was moderate for this finding due to consistency of study findings, the relative high quality of included studies, the direct measurement of a clinically relevant outcome and precision of the results. After grading the strength of the evidence for couple therapy vs controls, we determined that risk of bias was medium, evidence was consistent and direct but imprecise, the magnitude of effect and SOE were moderate, and no publication bias was detected.

## Discussion

Previous research has examined the feasibility and effectiveness of couple therapy based treatments for situational couple violence across several studies. In these studies, researchers have conducted couples therapy when working with couples experiencing relationship violence, and have reported differing but promising results. The aim of this study was to conduct a systematic review and meta-analysis to understand and synthesize data from the previous literature on the effectiveness of couple therapy. To our knowledge, this is the first study to do so. It is hypothesized that by aggregating data from previous studies, it may be possible to provide substantial evidence in support of using couples therapy as a treatment for IPV in certain circumstances. Our data support this view.

In this systematic review and meta-analysis, we abstracted data from six studies. This was a high quality systematic review, using only moderate to high quality studies. Although our effect sizes were only moderately significant, the analysis of the combined data from these studies provides evidence supporting the idea that couple therapy is a slightly better treatment approach than standard treatments when working with violent couples. This indicates that couple therapy can be an effective way to prevent intimate partner violence in certain situations. However, further research into what couple and relationship characteristics predict greater effectiveness of couple therapy is necessary before the widespread adoption of conjoint therapy as a standard form of treatment is really feasible.

According to Johnson and Leone's (2005) study using data from a large national survey, about 65% of violence in relationships exhibit the characteristics of situational couple violence. Importantly, some couples experiencing situational couple violence may prefer to continue their relationship with a desire to end the violence, enhance the quality of their marital relationship, and successfully parent their children (Stith & McCollum, Rosen, Locke & Goldberg, 2005). Gender specific treatments often operate in accordance with the Duluth Model (Pence & Paymar, 1993), which emphasizes the idea that the male perpetrator is psychologically driven to violent, oppressive, dominant behavior, and must be isolated from the victim. This is not conducive to treating couples who struggle to control their emotions but are committed to remaining together, and may actually deter couples from seeking help. Unfortunately, many social services available to female victims are also contingent on a commitment to leave the relationship. This means that many couples may be unable to access the counseling they need to improve their quality of life as a family, likely resulting in the progression of violence. For these reasons, research into couple therapy as an approved method of treatment for situational couple violence is critical.

While there are some other clinicians and researchers who argue that it is better to help these couples in a controlled environment with an experienced facilitator/therapist to guide them through their conflict issues together, rather than leave them on their own when they have already been aggressive towards each other. It is certain that safety precautions should be addressed to protect potential participants. There are a number of interventions cited in the literature for clinicians and researchers to help them address their safety concerns for partners during and in between therapy sessions (Karakurt et al., 2014). However, it is undeniable that certain issues associated with situational couple violence are more

effectively addressed with both partners present, so that the couple can grow stronger attachment bonds and support one another through the process.

### Summary of Findings

This systematic review and meta-analysis on the effectiveness of couple therapy in violence recidivism indicates a positive impact of couple therapy. Results of the preliminary meta-analysis with pooled data from 6 studies with 470 participants indicate that couples therapy significantly reduces intimate partner violence by point estimate  $-.84$ ,  $z = -3.07$ , ( $p < .05$ ) with the confidence interval of  $-1.37$  to  $-.30$ . Further research is needed to confirm these findings, but there is certainly reason to re-evaluate the role of couple therapy in IPV treatment and cautiously increase its application.

### Sources of Bias

There are various possible sources of bias when conducting a meta-analysis. The magnitude of the bias and potential sources of bias are taken into account when conducting a meta-analysis, to provide more reliable and valid findings. These biases include selection bias, performance bias, attrition bias and reporting bias (Higgins & Green, 2011). A review of the studies analyzed in this meta-analysis revealed low risk of bias in all areas except attrition and publication (Figure 3). There does not seem to be any influence from selection, performance, or detection biases. The studies maintained consistent methods between experimental and control groups.

Selection bias is defined as differences in baseline characteristics of compared groups. To ensure any differences or similarities in participant characteristics between groups are not systematically similar to the point of potentially influencing study findings, interventions are randomly allocated. This is not always possible in clinical trials due to ethical considerations of withholding treatment. In meta-analysis, randomization is considered when rating quality of evidence to verify that studies followed a specific rule on how participants were allocated to different treatment options (Higgins & Green, 2011). Recruitment, screening, and group assignment procedures were the same between experimental and control groups for all six studies included in this analysis, so selection bias was judged to be low.

Performance bias is defined as systematic differences in how treatment/intervention is provided. Receiving higher quality of care or exposure to factors other than the intervention itself can influence findings. Effective blinding procedures are used to ensure participants receive similar amounts of attention, additional treatment, and diagnostic investigations. However, depending on the study or disease, blinding is not always possible (Higgins & Green, 2011). Detection bias is similar, but it results from systematic differences in how treatment outcomes or recidivism are measured. Studies in this meta-analysis appear to have given equal treatment attention to all groups regardless of intervention, minimizing performance bias, and outcomes were measured consistently between groups, so there was no evidence of detection bias.

Attrition bias is described as systematic differences between groups who complete the study. It is possible that participants with certain characteristics drop out from a study more frequently than participants with other characteristics, leading to attrition bias (Higgins &

Green, 2011). Given the complicated nature of situational couple violence and the discomfort that can arise from couple therapy as a result, it is not surprising that some of the six studies we analyzed suffered from attrition. Drop-out rates were sometimes high, and bias may be a concern because not all of the studies reported statistics and data for the withdrawal population (Figure 2).

Reporting bias, also referred to as “publication bias”, is described as systematic differences among reported and unreported results. Generally, there is more published literature on positive findings, where an intervention works for a certain condition or situation, than on non-significant findings (Higgins & Green, 2011); this can inflate overall effect sizes found in meta-analyses. For the most part, individual studies in this meta-analysis did not show publication bias, in that they did not show evidence of withholding data. However, the meta-analysis itself does suffer from publication bias. To counteract the effect of the limited number of publications on negative (null) findings included in the meta-analysis (Rosenthal, 1979), unpublished data were sought out by sending individual e-mail requests to authors of articles reporting on violence where the quantitative data had not been reported. After contacting Dr. Harris regarding “*A Comparison of Treatments for Abusive Men and their Partners within a Family-Service Agency*” (1988), Dr. Markman regarding “*Preventing Marital Distress Through Communication and Conflict Management Training: A 4- and 5-Year Follow-Up*” (1993), Dr. Taft regarding “*“Strength at Home” Intervention to Prevent Conflict and Violence in Military Couples: Pilot Findings*” (2014), Dr. Dunford regarding “*The San Diego Navy Experiment: An Assessment of Interventions for Men Who Assault Their Wives*” (2000), and Dr. O’Farrell regarding “*A Randomized Clinical Trial of Behavioral Couples Therapy Versus Individually Based Treatment for Women With Alcohol Dependence*” (2014), no additional data were received.

### Limitations

While the studies analyzed here demonstrate reasonably good quality, they do present several limiting factors. Perhaps the most obvious of these is the low number of studies we were able to incorporate in the analysis. There were very few study designs that actually met our screening criteria. Several studies appeared to have relevant data, but we were unable to use them because they either did not have a comparison group or they were using a matched-sample control, which made the results meaningless for this analysis because the matched samples are survey data of the general population matched only along demographic variables. Matched samples do not control for comparable substance abuse or IPV levels, introducing unacceptable levels of performance and detection bias. We also found that several studies did not report data consistently. Some articles did not publish standard deviation values, or did not report both pre and post data. One study did not show separate results for the intervention and control groups, reporting overall violence instead. Unfortunately, our attempts to contact the authors of these studies did not result in additional data. Although our strategy to screen out poor quality studies left us with very few articles to analyze, it did result in low heterogeneity and a more valid result. Still, without a sufficient pool of applicable literature, it is not possible to make significant comparisons between different treatment approaches, and there is greater risk of having results overly influenced by a single large study, as was the case with this present analysis. It is important to note that

there are some concerns regarding some of the Fals-Stewart study (Heisel, 2010). However, a substantive and methodological review conducted in 2010 supports the use of the behavioral couple therapy program developed by O'Farrell, Fals-Stewart and colleagues for the treatment of substance abuse, providing evidence in favor of the veracity of Fals-Stewart's results in this instance (Ruff, McComb, Coker & Sprenkle, 2010). Additionally, we performed a trim-and-fill analysis to see if removing any of the studies we included in our meta-analysis would alter the direction of our results. We found that the direction was unchanged for all of the studies, even the Fals-Stewart study, despite its obvious weight from having such a large N value (N = 207). Thus we decided to include the study in our meta-analysis.

We were able to collect some information on Female-to-Male violence as well as overall couple violence, but not all of the studies measured this so we did not include it in our analysis. Furthermore, while some studies reported information about probation and involvement of the legal system, other studies did not. Similarly, while some studies measured minor and severe levels of violence, we did not feel that combining the limited data available would significantly increase the power. As a result, we only analyzed pre and post Male-to-Female violence data.

For the most part, demographics were consistent across the studies we analyzed, but methods of reporting demographic data were not. It would be helpful if the field developed a standard for collecting and reporting data. Some studies use means to report demographics while others use ranges. There also does not seem to be a consensus on whether it is more appropriate to provide information on couples as a unit or information on partners separately, and some studies only indicate overall data without reporting separately by intervention and control group. This analysis may also be affected by the fact that many of the studies we have included are specifically investigating violence among substance abusing populations. While this does not prevent us from seeing if there is any correlation between violence levels and participation in couples therapy, it does limit our ability to generalize the observed effect across a wider population. Ultimately, this analysis is limited by the difficulty in synthesizing data from such a wide variety of study designs and reporting methods, as well as being limited by the scarcity of moderate to high quality studies that have been published on this topic.

### **Future Research**

The limitations of meta-analysis are broadly known, as a meta-analysis is only as rigorous as the included studies. For this reason, we call for more rigorous and randomized empirical work on the effect of couple therapy. Extant research has barely begun to scratch the surface of the effectiveness of couple therapy for couple violence, and more research should explore how, when, and why this style of therapy may be most effective. Additionally, since many studies were excluded due to missing a comparison group or having no baseline violence data from the comparison group, we highly recommend all future studies include at least one control group, ideally multiple (e.g., a waitlist group and another therapy group). Additionally, future research should be mindful of the comorbid nature of IPV with other serious health concerns like mental and substance abuse disorders, and consider screening

for IPV in a variety of healthcare settings. Treatment should also take comorbid conditions into account, as it is currently unclear what the causal role is between IPV and co-occurring conditions, and the influence of undiagnosed mental and substance abuse disorders may drastically affect couple therapy efficacy.

Additionally, although there were not enough data collected for this meta-analysis to analyze the effect of couple therapy on minor vs severe forms of violence, or female perpetrated violence against male victims, we do feel that these are important avenues of research to pursue. While our data demonstrate a moderate effect of couple therapy in reducing male perpetrated situational relationship violence against females, this cannot be extended to all instances of couple violence. As professionals continue to discover the extent of previously underestimated female perpetration in situational couple violence, it will become increasingly necessary to understand whether couple therapy is an effective method for reducing that violence as well. Severity of violence and effectiveness of couple therapy should also be more rigorously investigated, as understanding the role of severity in recidivism may help clinicians to more easily determine treatment appropriateness and assess safety risks.

There are many standard treatments for IPV, but few involve couple therapy. While this meta-analysis speaks to the efficacy of couple therapy as a treatment for mild-moderate cases of IPV, it does not investigate the efficacy of other specific forms of intervention, nor does it imply that couple therapy is the best treatment. We have only determined that couple therapy works in certain situations in reducing violence recidivism. Future research should analyze the efficacy of other standard forms of treatment, so that policy makers and clinicians can use this research as a guide for determining the best treatment for each couple.

## Conclusions

### Policy & Clinical Implications

Overall quality of evidence was moderate, indicating that there are benefits of couple therapy for reducing violence in the relationship, but these benefits may be variable across couples. Our sample was not very diverse. We caution therapists to carefully consider their patients' cultural background before determining whether couple therapy is an appropriate treatment. Our sample was also relatively young on average, which may limit the generalizability of our findings to older populations. IPV has been found to be more prevalent among younger adults, but this may speak to poor reporting or high levels of morbidity. While we believe that couple therapy is still an effective treatment among older adults, we encourage therapists to carefully assess each couple before prescribing any treatment, as the interplay of IPV and elder abuse is not clear without further research. Setting of treatment may be an important aspect as well, since couples may respond differently to therapy depending on the environment. We did not find any influence of setting on couple therapy efficacy, but more targeted research would be needed to determine if this is an important factor when treating IPV. We also wish to stress that our findings at this time can only be applied to instances of mild to moderate situational couple violence. To be clear, 'situational couple violence' refers to mutual mild violence among partners in response to specific stressors or life events as a means to resolve conflict, in contrast to



‘characterological couple violence’ or ‘intimate terrorism’, which are predominantly characterized by partner domination and severe physical abuse. Further research is needed to understand the nuances of how couples experiencing different types of violence react to couple therapy. Therefore, despite the benefits observed in the studies considered, we concluded with a recommendation to consider using couples therapy only after careful assessment for the suitability of couple therapy for that particular couple, and after taking necessary precautions to ensure the safety of both partners.

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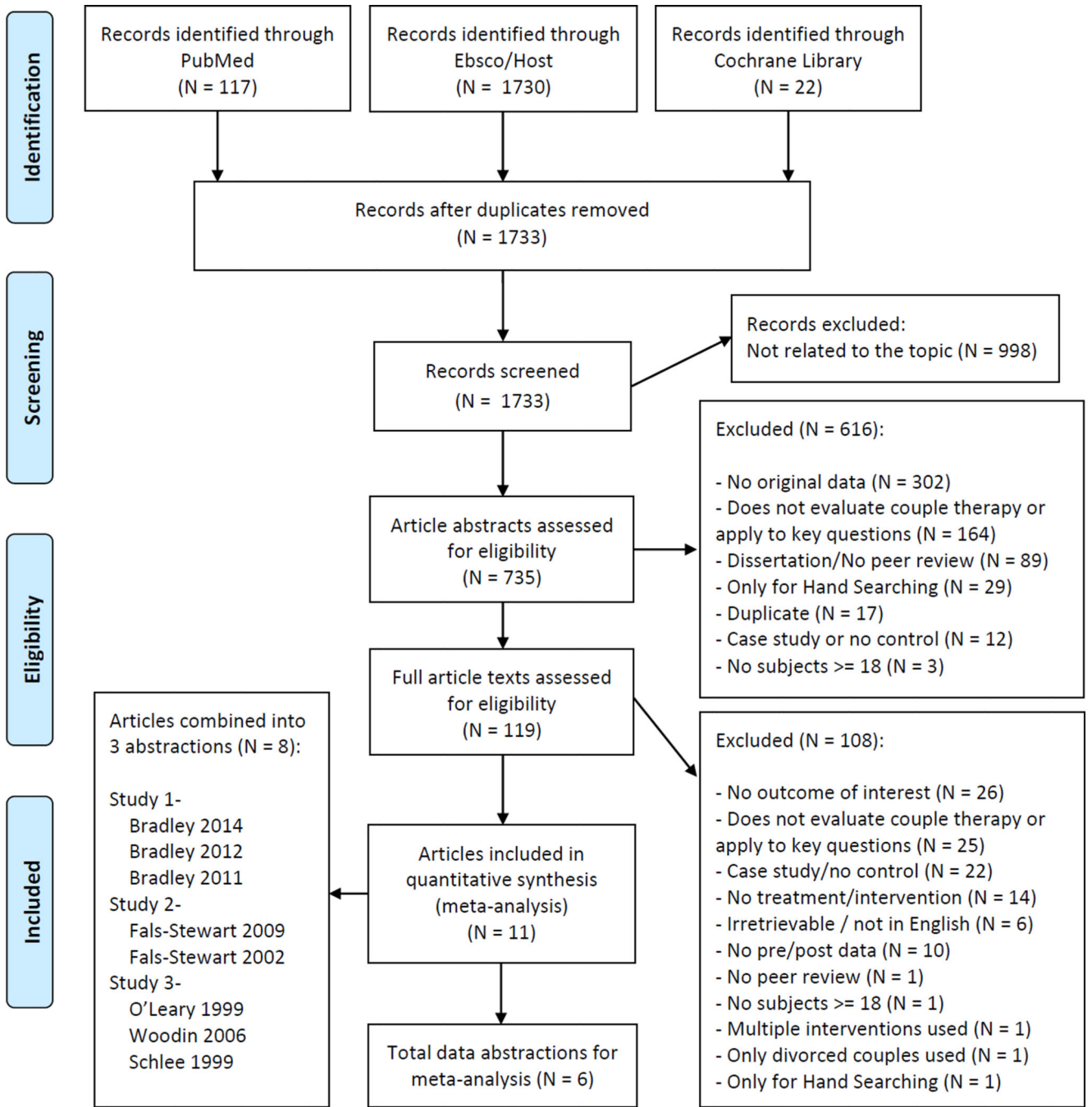
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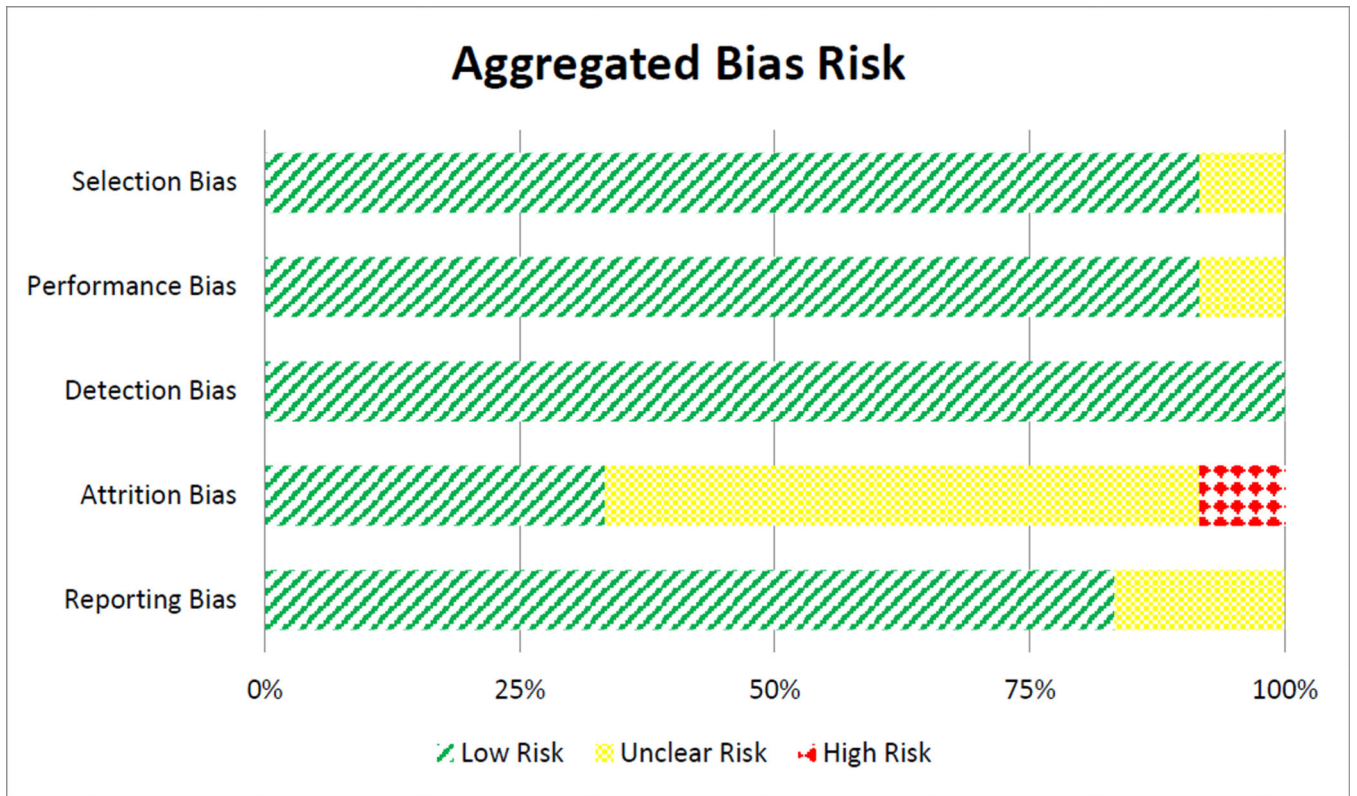


**Figure 1.**  
PRISMA 2009 Flow Diagram for systematic review.

	Selection Bias		Performance Bias		Detection Bias		Attrition Bias		Reporting Bias	
	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2
<b>Bradley 2014 / Bradley 2012 / Bradley 2011</b>	+	+	+	+	+	+	?	+	+	+
<b>Fals-Stewart 2006</b>	+	+	+	+	+	+	?	?	+	+
<b>Fals-Stewart 2009 / Fals-Stewart 2002</b>	+	+	+	+	+	+	?	?	+	+
<b>Lam 2009</b>	+	+	+	+	+	+	?	+	+	+
<b>O’Leary 1999 / Woodin 2006 / Schlee 1998</b>	+	+	+	+	+	+	-	+	+	+
<b>Stith 2004</b>	?	+	?	+	+	+	?	+	?	?

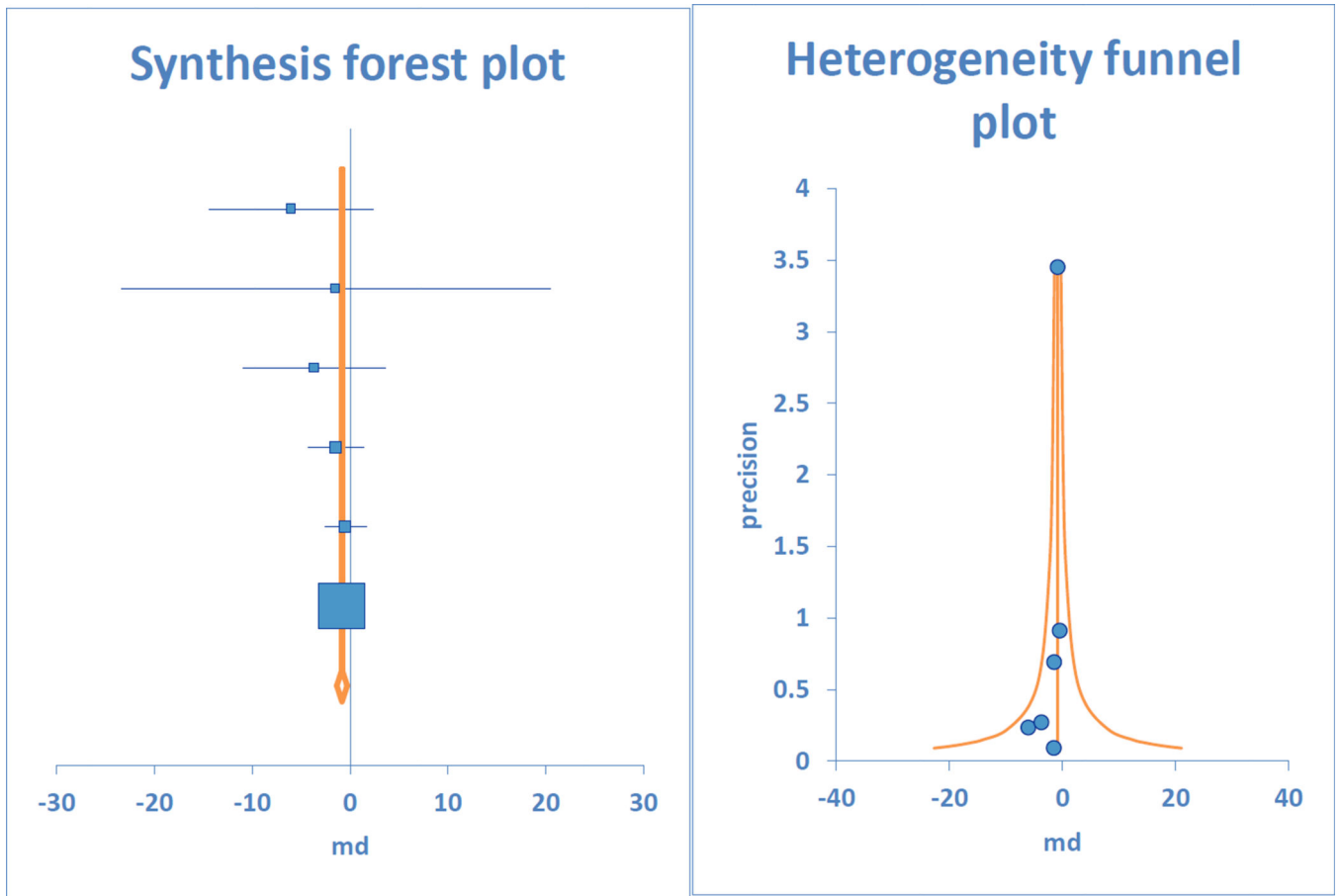
**Figure 2.**  
 Risk of bias for each study included in the analysis, evaluated by two reviewers, Q1 and Q2.  
 Green (+) indicates low risk, yellow (?) indicates unclear risk, and red (-) indicates high risk.





**Figure 3.** Aggregated risk of bias overall for studies included in the analysis.





**Figure 4.**  
Synthesis and Heterogeneity

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**Table 1**

Characteristics of Included Studies

Study	Setting	Participants	Intervention	Control	Outcomes used in our analysis
Bradley 2014 Bradley 2012 Bradley 2011	Community Mental Health Agency	Couples over 18 in committed relationship experiencing IPV	Conjoint Group / Individual Couples therapy (CHRP)	No Treatment Control	Reductions in male and female perpetrated violence, measured by CTS2
Fals-Stewart 2006	Outpatient	Couples over 20 in a committed relationship with alcoholic female partner entering treatment	Individual Couples therapy (BCT)	Gender Specific Individual Therapy (IBT)	Reductions in male and female perpetrated violence, measured by TLFB-SV
Fals-Stewart 2009 Fals-Stewart 2002	Community Mental Health Agency	Couples over 20 in a committed relationship with substance abusing male partner entering treatment	Individual Couples therapy (BCT)	Gender Specific Group Therapy (IBT)	Reductions in male perpetrated violence (all and severe), measured by TLFB-SV
Lam 2009	Outpatient	Parents with male partner entering outpatient alcohol treatment	Individual Couples therapy (BCT)	Gender Specific Individual Therapy (IBT)	Reductions in male and female perpetrated violence, measured by TLFB-SV
O'Leary 1999 Woodin 2006 Schlee 1999	Not Reported	Couples in a committed relationship experiencing male perpetrated IPV	Conjoint Group Therapy (PACT)	Gender Specific Group Therapy (GST)	Reductions in male and female perpetrated violence (all, minor, and severe), measured by mCTS
Stith 2004	Not Reported	Couples over 18 in a committed relationship experiencing IPV	Individual Couples therapy (DVFACT)	No Treatment Control	Reductions in male and female perpetrated violence (all, minor, and severe) and total couple violence, measured by CTS2

BCT = Behavioral Couples Therapy  
 CHRP = Creating Healthy Relationships Program  
 DVFACT = Domestic Violence Focused Couples Treatment  
 IBT = Individually Based Therapy/Treatment  
 PACT = Physical Aggressive Couples Treatment  
 Revised Conflict Tactics Scales = CTS2  
 Modified Conflict Tactics Scales = mCTS  
 Timeline Followback Interview - Spousal Violence = TLFB-SV

**Table 2**

Meta-analysis Results

<b>K</b>	<b>N</b>	<b>wmd</b>	<b>ci-</b>	<b>ci+</b>	<b>z</b>	<b>p</b>	
<b>6</b>	<b>470</b>	<b>-0.84</b>	<b>-1.37</b>	<b>-0.30</b>	<b>-3.07</b>	<b>0.00</b>	
<b>Id</b>	<b>N</b>	<b>md</b>	<b>ci-</b>	<b>ci+</b>	<b>z</b>	<b>p</b>	<b>w</b>
Stith 2004	14	-6.02	-14.39	2.35	-1.41	0.16	0.41%
Bradley 2014, 2012,2011	100	-1.48	-23.39	20.43	-0.13	0.89	0.06%
O'Leary1999, Woodin2006, Schlee1998	37	-3.69	-10.97	3.59	-0.99	0.32	0.54%
FalsStewart2006	92	-1.44	-4.27	1.39	-1.00	0.32	3.58%
Lam2009	20	-0.45	-2.60	1.70	-0.41	0.68	6.21%
FalsStewart2009, 2002	207	-0.80	-1.37	-0.23	-2.76	0.01	89.20%

id = study identification tag during analysis

k = number of studies included in analysis

N = number of participants

wmd = weighted mean difference

md = value of male violence recidivism by point estimate

ci- = low end confidence interval value

ci+ = high end confidence interval value

z = z-score measuring relationship to mean

p = p-value for statistical significance

w = weight of study based on percentage of total combined participants