

**Psycho-educational intervention with moderately and severely distressed married couples -
1-year follow up results**

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RUNNING HEAD: Psycho-educational Interventions

Abstract

The current study examined the efficacy of conflict-management and friendship-building psycho-educational interventions either alone or combined with 80 married couples. For ethical reasons, a Bibliotherapy-treatment, rather than a No-treatment group was used as the control group. Two outcomes were assessed: (1) friendship – improving couple friendship quality, and (2) conflict -- replacing destructive with constructive conflict. For the friendship outcome, all groups improved over time; however, wives reported more problems in couple friendship quality than husbands. While moderately distressed couples remained stable in improvement in couple friendship over time, a relapse occurred from post-intervention to 1-year for severely distressed couples. For moderately distressed couples the conflict intervention alone improved the friendship outcome for husbands but not for wives; for severely distressed couples, the conflict intervention improved the friendship outcome for wives, but made it worse for husbands. The conflict intervention alone improved the friendship outcome for husbands, but wives' improvement was followed by relapse. The largest intragroup intervention effect sizes were obtained for husbands. For the conflict outcome there was significant improvement across all interventions; however, the combined condition produced the lowest levels of destructive conflict. Across all interventions moderately distressed couples had better outcomes on conflict than severely distressed couples.

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A variety of couple therapy interventions have demonstrated their efficacy in increasing marital satisfaction for distressed couples (for example, Baucom, Sayers & Sher, 1990; Baucom et al, 1998; Christensen & Heavey, 1999; Christensen et al, 2004; Jacobsen & Addis, 1993; Shadish, Ragsdale, Glaser-Renita, & Montgomery, 1995). There is some reason to believe that the nature of the intervention itself may affect the size of the treatment effect, as well as the rate of relapse. An outcome study by Jacobson et al. (1985) evaluated two interventions, behavior exchange and conflict management. The behavior exchange intervention was designed to briefly enhance positive affect and caring. Findings revealed much smaller effect sizes and more significant relapse for the behavior exchange intervention than for the conflict-management intervention. However, even though the conflict-management intervention had better effect sizes, it still showed significant relapse. When the behavior exchange intervention was combined with the conflict-management intervention, however, relapse was significantly reduced. The present study was designed to further investigate the relative effects of these two forms of intervention. Specifically, it evaluated couple outcomes following a friendship-enhancing intervention or a conflict-management intervention. These interventions used a psycho-educational, rather than a therapy, format.

There is some evidence to suggest that, in addition to prevention, a psycho-educational approach can produce significant improvements in the marital satisfaction of distressed couples (Gottman & Levenson, 1992; Van Widenfelt, Hosman, Schaap, & van der Staak, 1996; Kaiser,

Hahlweg, Fehm-Wolfsdorf and Groth,1998; Halford, Sanders & Behrens, 2001). While this previous research provides a rationale for the development and implementation of psycho educational approaches to treat distressed couples, two issues require further investigation: (1) the issue of relapse over time, and (2) the issue of how well psycho-educational intervention works in couples with varying levels of distress.

Content of the Friendship Intervention

Our own longitudinal studies on divorce prediction (Gottman, 1994; Gottman, 1999; Gottman & Silver, 1999) suggested that a friendship-enhancing intervention needs to include several components in addition to behavior exchange. These components are: (a) knowledge of the partner's inner psychological world (called a "love map"), (b) expression of affection and respect on a daily basis (called the "fondness and admiration system"), and (c) response to partner's bids for emotional connection (called "turning toward"). Driver and Gottman (2004) found that turning toward one's partner in a non-conflict setting of an apartment lab was related to positive affect during conflict discussions. Greenberg and Johnson's (1988) emotionally-focused marital therapy, which has an attachment theory base, focuses in part, on healing "attachment injuries," which are previous major failures of emotional connection and abandonment in critical incidents in the couple's history. Greenberg and Johnson's attachment injuries can be viewed as one partner having turned away from a bid for emotional connection during a time of crisis for the other partner.

There is evidence from other laboratories suggesting that several other components of friendship enhancement could be effective in coping with marital distress. Some exploratory post-hoc research suggests that the friendship component needs to include dyadic coping with stress. In a follow-up study, Jacobson, Schmaling and Holtzworth-Monroe (1987) found that the

inability to buffer the marriage from stressful life events was the only variable that differentiated couples who maintained change and couples who relapsed in marital satisfaction 2 years after treatment. It is interesting to note that the intervention program itself did not include a stress-management component, meaning that the couples who maintained change via stress management appeared to have invented this on their own. This work has been extended by the Swiss psychologist Bodenmann (Bodenmann, 1995; Bodenmann, 1997). Bodenmann's longitudinal research with couples indicates that stress can gradually destroy the quality of a couple's relationship. This process appears to be related to the fact that unhappy couples are less likely to respond to their partner's emotional stress signals. Bodenmann's research indicates that teaching couples coping strategies early in their relationship can enhance individual and dyadic coping, as well as communication and problem-solving skills. Indeed, studies of couples who participate in preventive training programs suggest greater marital satisfaction and decreased rates of divorce. Moreover, the absence of dyadic coping has been shown to be a major predictor of divorce, and (Bodenmann, 1997; Hahlweg, Markman, Thurmaier, Engl & Eckert, 1998).

Another potential component of a friendship-enhancing intervention is existential in nature. This component involves shared values, rituals of connection, and building a sense of shared purpose and meaning in life. In two longitudinal studies on the transition to parenthood (Belsky & Kelly, 1988; Cowan & Cowan, 2002) husbands' joining with their wives in making a similar philosophical transition in values and life goals, and in moving from a state of "me-ness" to "we-ness" (sacrificing for the team), was found to be central in the couple's marital adjustment. In our own longitudinal work, Shapiro et al. (2000) found that fondness and admiration and similarity in shared values (assessed through an oral history interview) a few months after the wedding predicted a successful course in marital satisfaction following the

transition to parenthood and over the next 6-year period. Thus an existential focus is considered to be a key component in the development and maintenance of a couple's friendship.

To summarize, adding a friendship-enhancing intervention to a conflict-management intervention might have meaningful consequences for both relapse rates and effect sizes. This friendship-enhancing component may need to be somewhat complex, rather than a simple behavior exchange intervention. We suggest that it needs to include: (a) behavior exchange, defined as increasing positive affect in everyday non-conflict contexts, (b) effective dyadic coping with stress, (c) an existential approach to building shared values, rituals of connection, values, and meaning, (d) building love maps, (e) expressing fondness and admiration, and (f) turning toward one's partner's bids for emotional connection, including an emotionally-based focus on healing previous attachment injuries.

Content of the Conflict Intervention

Our longitudinal research on divorce prediction suggested that there were two types of marital conflict issues, those that are short-term and solvable, and those that cannot be resolved. These latter problems, that people learn to live with, are referred to as "perpetual issues". Perpetual issues keep recurring, and appear to be about lasting differences in personality, life style, and needs between partners. Based on a 4-year follow-up study, Gottman (1994) reported that only thirty-one percent of marital problems can be categorized as short-term with sixty-nine percent of all marital problems being of the perpetual, recurring type. Compared to unstable couples, stable couples evidenced a gentler approach to short-term issues. They softened how they started their discussions, presenting issues to their partner with more positive and less negative affect; they accepted influence from their partner; they repaired their interaction successfully when it became negative, and they compromised. Stable couples had also

established what might be called “a dialogue” around perpetual issues. Their discussions included shared affect and humor as well as problem-solving. Unstable couples had escalating negative affect when discussing these perpetual issues. Their discussions included high levels of criticism, contempt, defensiveness and sadness. We viewed these unstable couples as having “gridlocked” issues. Based on this research, we developed a two-pronged approach to conflict for use in our clinical work. For more solvable short-term issues we employ a social skills approach teaching a gentle approach to conflict management (softened startup, accepting influence, effriendshiptive repair, and compromise). However, gridlocked conflict seems to be based on more profound hidden agendas; for example, the conflict may be about the couple’s budget, but in the dialogue we can discern that these people are gridlocked because they have very different dreams about the underlying meaning that money should have in their lives. The hidden agendas in gridlocked conflict are about basic philosophical and emotionally-based beliefs tied into people’s life histories. For gridlocked conflict we have found an existentially-based intervention to be most effective. We use what we call the “dreams-within-conflict” intervention. This is an intervention that examines the meaning of each person’s position, the “life dream” that underlies their position on the issue, and the personal history of this dream. Couples talk about the dream behind their position and then find a way to honor one another’s dreams within the conflict (Gottman, 1999).

The primary objective of the current study was to evaluate the efficacy of friendship-enhancing and conflict management interventions in four distinct intervention formats: (1) friendship-enhancement alone, (2) conflict-management alone, (3) the combined intervention, or (4) a bibliotherapy control that contained no structured presentation of friendship enhancement or conflict management. Twenty couples were randomly assigned to each of the four

intervention formats; this sample size is larger than that typically found in outcome studies in the area of marriage and family (Shadish et al, 1993) and consistent with recommendations by Chambless and Hollan (1998).

Couples assigned to the friendship enhancement alone condition or the conflict management alone condition attended a one-day workshop. In contrast, the combined condition required couples to attend a two-day workshop. If the combined treatment is superior to the individual components we can not rule out the rival hypothesis that treatment length was the active ingredient in producing the larger effects, rather than the combination of the two components. Some researchers have attempted to address the issue of multi-component interventions being compared to single component interventions by using an abbreviated form of the treatment, reducing practice time, speeding up the early stages of the multi-component intervention or by tapering treatment at the end of the single component interventions (e.g., Baucom, Sayers, Sher, 1990). There is no perfect solution to this problem. While the combined abbreviated treatment is commonly used to control for treatment time across groups, in naturalistic conditions of therapy a combined treatment is expected to take longer than individual components. Furthermore, if each component is abbreviated the combined condition may not reflect the true addition of components, and thus the abbreviated combined treatment has a potential logical flaw, since it may not provide an adequate test as to the effectiveness of the intended treatments. For these reasons we decided to have the combined treatment be of longer length than the single component treatments.

Modeled on the recent outcome study by Christensen, Atkins, Berns, Wheeler, Baucom, & Simpson (2004) we also categorized couples by severity of distress (moderately distressed and severely distressed) for the purpose of analyses. The Marital Adjustment Test (MAT, Locke &

Wallace, 1959) is normed to have a population mean of 100.0 and a standard deviation of 15.0. The two groups of couples were defined as follows: (1) the moderately distressed had averaged husband and wife Locke-Wallace scores greater than or equal to 85.0, but less than 93.0 and (2) the severely distressed had averaged husband and wife Locke-Wallace scores less than 85.0.

A limitation of previous marital therapy outcome research is the use of predominately white, non-representative samples. In many of these studies ethnicity and race were simply not reported (e.g., Jacobson, 1977; 1978; 1984; Jacobson, Schmaling, & Holtzworth-Munroe, 1987; Jacobson, Follette, & Pagel, 1986; Jacobson & Anderson, 1978; 1985; Johnson & Greenberg, 1985a, 1985b, 1988; Greenberg, Ford, Alden, & Johnson, 1993; James, 1991; Johnson & Talitman, 1997). In others, the sample is either entirely Caucasian (e.g., Goldman & Greenberg, 1992), or essentially Caucasian (Snyder & Wills, 1989: 15.9% non-White). In an effort to address this limitation, we recruited a representative sample of distressed couples that matched the demographics of the Greater Seattle Metropolitan area.

Based on the research literature reviewed above, four hypotheses were advanced. First, couples in all intervention formats were expected to show improvement in marital adjustment as evidenced by decreases in problems in couple friendship quality and decreases in couple destructive versus constructive marital conflict. Second, couples receiving the combined intervention were expected to demonstrate greater gains in marital adjustment than couples in the other conditions. Third, the intervention formats were expected to be more effective for moderately distressed couples than severely distressed couples. Finally, given our clinical experience suggesting that men typically enter treatment seeking less conflict, while women typically enter treatment seeking more emotional connection, our fourth hypothesis was that husbands and wives would show differential treatment friendship across intervention formats.

We expected that men would gain more from the conflict-only intervention than women, while women would gain more from the friendship-enhancing intervention than men.

Methods

Participants and Screening Measures

One hundred maritally distressed couples were recruited to participate in a psychoeducational intervention outcome study in Seattle, Washington. Radio and television interviews, newspaper advertisements, and flyers described the free psychoeducational intervention. All couples who responded to advertisements answered a set of telephone survey questions that assessed marital status, marital satisfaction, and availability to attend the intervention weekends. Participants were also asked to provide information regarding birth date, age, education, income, occupation, health status and length of marriage. To be eligible for the study, couples had to be living together and legally married, had to be able to attend the scheduled psychoeducational workshops, and at least one member of the couple had to have a marital satisfaction score of less than 100 on the Marital Adjustment Test (MAT, Locke & Wallace, 1959). This is a common cutoff score for marital distress on the MAT. If the couples met these initial selection criteria, they were mailed a pre-treatment packet of questionnaires to complete individually, a questionnaire consent form, a cover letter with directions, and a prepaid return envelope. The questionnaires were then screened for suicidality, substance addiction, domestic violence, and antisociality. Participating couples were then selected to match the ethnic composition of the Greater Seattle Metropolitan Area. Using a random numbers table, the couples from each ethnic identity category (White, African-American, Hispanic, Asian-American, Pacific Islander or Hawaiian and Native American) were randomly assigned to

participate in one of four psychoeducational interventions. The process of random assignment continued until each intervention format was assigned 20 couples ($n=40$). Given the work suggesting that treatment conditions should be perceived as equally credible by participants (Jacobson & Baucom, 1977), the procedures for assignment described each condition as a psychoeducational intervention designed to decrease marital distress. None of the couples refused to participate on the basis of their assignment to an intervention group. Following assignment, all couples were scheduled for the pre-intervention and the post-intervention laboratory sessions.

Chi-square analyses and t-tests revealed no significant differences across the intervention groups on any of the demographic variables (age, years married, income, ethnic identity). As such, the demographics of the groups are reported together. Wives in the study had a mean age of 41.99 ($SD=11.41$) years, while husbands had a mean age of 44.64 ($SD=12.19$) years. Couples had been married a mean of 13.00 years. The average income for wives was \$20,800 and for husbands was \$48,900. The sample was predominately White or European American; (husbands: 68.0%, wives: 68.0%). The remainder of the sample identified as Hispanic-American (husbands: 6.5%, wives: 8.7%); African-American (husbands: 9.7%, wives: 10.9%); Asian-American (husbands: 4.3%, wives: 8.8%); Pacific Islander or Hawaiian (husbands: 3.2%, wives: 2.1%) and Native American (husbands: 3.2%, wives: 1.1%). Multiple ethnic/racial identities were permitted in our demographics.

The mean marital satisfaction scores on the MAT at screening were 80.77 ($SD=23.49$) for husbands and 74.85 ($SD = 22.45$) for wives. This sample was somewhat more distressed than is typical for couples in outcome studies of marital therapy (Greenberg & Johnson, 1988; Christensen, Atkins, Berns, Wheeler, Baucom & Simpson, 2004).

Outcome Measures

Outcome measures assessed couple relationship satisfaction, couple relationship status and domains of marital functioning. The larger project also included assessments of individual functioning including depression, stress level and personality. These latter measures were not used in the study reported herein. Questionnaires were administered to couples pre-intervention, post-intervention and at one year follow-up. Couples completed all of the pre and post-intervention outcome measures during laboratory sessions at the University of Washington. The one year follow-up outcome measures were mailed to couples to be returned to the project in a prepaid, addressed envelope.

Marital Adjustment Test (MAT). Developed by Locke and Wallace (1959) the MAT is a 15 item self-report measure covering domains of marital functioning such as disagreement, communication, leisure time activities, and regrets about marrying your spouse. The MAT is one of the most widely used measures in the field, and is considered to be a highly reliable and valid measure (Burgess, Locke & Thomes, 1971). The MAT was administered at all three timepoints, pre-intervention, post-intervention and one year follow-up.

Marital Status Inventory. The Marital Status Inventory (MSI) is a fourteen item measure of dissolution potential (Weiss & Cerreto, 1980). Items on the MSI assess persistent thoughts and actions about divorce. Couples completed the MSI at pre-intervention, post-intervention and one year follow-up.

Sound Marital House Questionnaires(SMHQ). These self-report scales were developed by Gottman to assess domains of couple functioning relevant to the stability of and communication patterns within marriage. These domains include Friendship; Sex, Romance and Passion; Shared Meaning; and Conflict.

The Friendship domain includes four scales: Love Maps (20 items, sample item: I know my partner's current worries) which assesses interest in and knowledge of partner's inner psychological world; Fondness and Admiration (20 items, sample item: I am really proud of my partner) which assesses affection and respect in the marriage; Turning Toward (20 items, sample item: My partner is usually interested in hearing my views on things) which assesses the quality of everyday emotional connection; and Emotional Disengagement (20 items, sample item: Sometimes our marriage feels empty to me). The Sex, Romance, and Passion domain uses two 6 item scales: Romance and Passion (sample item: The fire has gone out of this marriage) and Sex Problems (sample item: One problem is the amount of love in our love making). The Shared Meaning domain includes four scales: Shared Goals (10 items, sample item: We share many of the same goals in our life together) which assesses shared values and life goals; Shared Roles (7 items, sample item: My partner and I have compatible views about the role of work in one's life) which assesses shared central role definitions (e.g. husband, wife, mother, father, son, daughter, friend, work roles); Shared Rituals (20 items, sample item: During weekends we do a lot of things together that we enjoy and value) which assesses shared rituals of connection (Doherty, 1997); and Shared Symbols (20 items, sample item: We see eye-to-eye about what a "home" means) which assesses shared definition of central symbols (e.g., a home, love). In the domain of Conflict, five scales are used: Harsh Startup (20 Items, sample item: I hate the way my partner raises an issue), Accepting Influence (20 items, sample item: I believe in lots of give and take in our discussions), Compromise (20 items, sample item: In discussing issues we can usually find our common ground of agreement), The Four Horsemen of the Apocalypse (33 items, sample item: I can get mean and insulting in our disputes) which assesses the affects of Criticism, Defensiveness, Contempt, and Stonewalling in couple interactions; and Gridlock on

Perpetual Issues (20 items, sample item: The same problems keep coming up again and again in our marriage) which assesses repeating cycles of negative affect or emotional disengagement on recurring, or perpetual, marital issues; these are seen as unsolvable issues created by lasting personality differences between spouses; couples are either in “dialogue” about these issues or in “gridlock”.

The reliabilities of the SMHQ scales showed the following Cronbach's alphas. In the Friendship domain: Love Maps (husbands: .61, wives: .59); Fondness and Admiration (husbands: .91, wives: .91), Turning Toward (husbands: .91, wives: .90), and Emotional Disengagement (husbands: .91, wives: .91). In the Sex, Romance, and Passion domain (husbands: .90, wives: .89). In the Shared Meaning domain: Shared Goals (husbands: .86, wives: .72), Shared Rituals (husbands: .77, wives: .76) Shared Roles (husbands: .45, wives: .49), Shared Symbols (husbands: .85, wives: .80). In the Conflict domain: Harsh Startup (husbands: .93, wives: .91), Accepting Influence (husbands: .39, wives: .37), Compromise (husbands: .62, wives: .61), The Four Horsemen (husbands: .94, wives: .93), and Gridlock on Perpetual Issues (husbands: .91, wives: .90).). These seven scales have also been shown to correlate significantly with the Symptom Checklist-90 (SCL-90, Derogatis, Lipman & Covi, 1973) and the Weiss-Cerreto Marital Status Inventory (MSI, Weiss & Cerreto, 1980). In a pilot study with 51 couples attending a two-day workshop in marital communication, the relation between the scales on the SMHQ and the SCL-90 ranged from $r = -0.31$ to $r = -0.48$. The relation between the scales on the SMHQ and the Weiss-Cerreto ranged from $r = 0.25$ to $r = -0.43$ (Ryan & Gottman, 2000).

Composite Scores on the SMHQ. Scales from the SMHQ were combined to form the two composite outcome measures for this study. (Gottman ,1999). The composite variable for Problems in Couple Friendship Quality is the sum of Love Maps, Fondness and Admiration,

Turning Toward minus the Shared Meaning scales and the sex/romance/passion scales (both of which are negatively keyed). The composite variable for reported Couple Destructive versus Constructive Marital Conflict is the sum of gridlock, the four horsemen, and harsh startup minus the sum of accepting influence from one's partner and compromise; scores can be negative if accepting influence and compromising outweighs the sum of gridlock, the four horsemen, and harsh startup. The final Cronbach alphas were, for husband and wife, respectively: problems in friendship quality: .93, .91, and, destructive versus constructive marital conflict: .94, .94.

Intervention Procedures

Couples participating in this randomized clinical trial: (1) attended a pre-intervention laboratory session; (2) attended one of three workshops (couples in the bibliotherapy condition did not attend a workshop but were given the Gottman and Silver's (1999) book, *The Seven Principles for Making Marriage Work*); and (3) attended a post-intervention laboratory session. The pretreatment packet of questionnaires was completed during the recruitment and screening phase of the study. Couples were then scheduled for, and participated in, a laboratory session during which they identified and discussed areas of disagreement. At the conclusion of the pre-treatment laboratory session, the procedures for the intervention, post-intervention questionnaire packet, post-intervention laboratory session, and follow-up questionnaires were explained to the participants.

With the exception of the bibliotherapy condition, all couples participated in either a one-day (friendship enhancement condition or conflict management condition) or a two-day (combined condition) manualized marital workshop modeled on the Gottman Institute's "Art and Science of Love" workshop. This two-day manualized workshop focuses on friendship enhancement in the first day and conflict management in the second day. Each workshop day is 8

hours in length, and is conducted by Dr. John Gottman and Dr. Julie Schwartz-Gottman. The workshop on videotape and the manual are available from www.gottman.com. The exercises and the lectures used during these workshops are also published in detail in Gottman (1999).

In the present study, the friendship alone condition was designed to be similar to the first day of the “Art and Science of Love” workshop, and the conflict alone condition was designed to be similar to the second day of the workshop. The combined condition was identical to the two-day “Art and Science of Love” workshop. Approximately one week after attending the workshops couples were mailed a packet of post-treatment questionnaires. These questionnaires were collected at the post-treatment laboratory session. This final laboratory session was identical to the pre-intervention laboratory session.

Friendship-enhancement alone. The goals of this component were to enhance couple friendship (e.g. building love maps, building fondness and admiration, and enhancing emotional connection through turning toward one another in everyday interaction) and to decrease problems in couple friendship quality. These topics were examined using lectures, discussions, direct instruction and participation in structured exercises. For the sake of providing a reasonably complete theory of how marriages function, the manual included an abbreviated section on repair and exercises on repair of negative interactions. Couples were taught to process arguments by having a recovery conversation using the Aftermath of a Fight procedure (see Gottman, 1999). Finally, lectures were used to underscore the importance of couple friendship in carrying out effective repair.

Conflict-management alone. In this condition, lectures and exercises were used to teach couples to regulate conflict through (a) the management of gridlocked perpetual conflict (moving from gridlock to dialogue), with the dreams-within-conflict exercises, and (b) the management of

solvable conflicts through softened startup, accepting influence, effective repair, physiological self and partner soothing, taking effective breaks, and compromise.

Combined condition. This condition involved a combination of the two treatment components, providing couples with the skills to address both friendship issues and problems in conflict, and the management of that conflict, within their relationship.

Bibliotherapy. Marital therapy outcome research suggests that couples in wait-list control groups or no-treatment control groups show no change, or more frequently show deterioration, in marital quality during the waiting period (Wesley & Waring, 1996; Baucom, Hahlweg & Kuschel 2003). Given our concerns about the ethical nature of wait-list or no-treatment controls we chose instead to employ a minimal treatment, bibliotherapy control group. Couples in this group received only a copy of Gottman & Silver's (1999) book *The Seven Principles for Making Marriage Work*. While it is possible that the bibliotherapy couples received an intervention similar to those in the combined psycho-educational workshop condition, their exposure to the materials was not structured or monitored.

Attrition. Across experimental groups attrition from the pre-workshop assessment to the one-year follow-up was low. All couples completed the pre-intervention laboratory session, the psychoeducational intervention and the post-intervention laboratory session. Analyses revealed no significant differences in marital satisfaction or on demographic variables for those couples completing all assessments and those attriting after the post-intervention assessment.

Results

Outcome Data

With each of the two outcome variables (problems in couple friendship quality and couple destructive versus constructive marital conflict), 3x2x2 univariate repeated measures

analyses of variance were conducted. There were three time points of measurement: Pre, Post, and 1-year; two levels of gender: male, female; and two levels of initial marital satisfaction: moderately distressed (unhappy) and severely distressed (distressed). Results are summarized in terms of the two objectives of our interventions.

Problems in Couple Friendship Quality. Analyses revealed a significant Linear Time effect, $F(1, 50) = 11.67, p < .001$, and a significant Quadratic Time effect, $F(1, 50) = 8.77, p = .005$ with problems in couple friendship quality declining for all groups over time. There was also a significant Gender effect, $F(1, 50) = 5.50, p = .023$, with wives having more problems in couple friendship quality than husbands (Wives: $M=11.43$, Husbands: $M=9.89$). The Marital Satisfaction-by-Time Linear interaction was shown to be significant, $F(1, 50) = 9.04, p = .004$ (see Figure 1). For moderately distressed (unhappy) couples problems in couple friendship

Insert Figure 1 about here

quality declined steadily over time, whereas there was a relapse from post-intervention to 1-year for severely distressed (distressed) couples. The Gender-by-Marital Satisfaction-by-Conflict Management (Yes/No) interaction factor was also found to be significant, $F(1, 50) = 6.61, p = .013$. As Figure 2 shows, for moderately distressed (unhappy) couples the Conflict Management

Insert Figure 2 about here

intervention reduced problems in couple friendship quality for husbands but not for wives. For severely distressed (distressed) couples, however, the Conflict Management intervention reduced problems in couple friendship quality for wives but increased it for husbands (see Figure 3).

Insert Figure 3 about here

The Time-by-Gender-by-Conflict Management interaction was statistically significant, $F(1, 50) = 4.62, p = .036$, with the Conflict Management intervention husbands showing a steady decline in problems in couple friendship quality, while there is some evidence of a relapse for wives (see Figure 4).

Insert Figure 4 about here

Couple Destructive versus Constructive Marital Conflict. The significant main friendship in the analysis included a Time main effect: Linear $F(1, 53) = 31.61, p < .001$, with Quadratic $F(1, 53) = 4.40, p = .041$; with couples across all interventions showing improvement over time, that is, their reported conflict patterns became more constructive and less destructive. The Quadratic effect is the result of a steeper drop from pre-intervention to post-intervention than from post-intervention to 1-year. An Initial Marital Satisfaction main effect was also found, $F(1, 53) = 10.90, p = .002$. At all time points and across all interventions severely distressed (distressed) couples ($M=4.04$) reported more destructive conflicts than moderately distressed (unhappy) couples ($M=2.93$). Analyses revealed an interaction between the Conflict-Management-by-Friendship-Enhancing interventions, with $F(1, 53) = 4.72, p = .034$. The data, plotted in Figure 5, show that the combined condition produced the lowest destructive conflict

Insert Figure 5 about here

scores. A Quadratic Time-by-marital satisfaction interaction was also found, $F(1, 53) = 5.37$, $p = .024$. These data indicate that across all interventions moderately distressed (unhappy) couples reduced their destructive marital conflict significantly more than severely distressed (distressed) couples (see Figure 6).

Insert Figure 6 about here

Effect size, reliable change index, and negative reliable change index

Because these statistics have been worked out in the research literature for only the Locke-Wallace (or equivalently the Spanier Dyadic Adjustment) total score, that measure will be used to estimate these statistics. Intragroup Effect Size (ES) was calculated for husbands and wives for all treatment groups. Intragroup ES was defined as the mean difference between the pre-intervention assessment and the one-year follow-up means of the particular group divided by the pooled one-year follow-up minus pre-intervention standard deviation. Husbands obtained the following intragroup effect sizes: friendship alone ($d=3.13$); conflict alone ($d=2.22$); combined ($d=2.44$); and Bibliotherapy ($d=3.41$). The obtained intragroup effect sizes for wives were: friendship alone ($d=1.57$), conflict alone ($d=0.35$); combined ($d=3.71$); and Bibliotherapy ($d=5.74$). Using the guidelines provided by Cohen (1988), these effect sizes can be defined as large. Moreover, the effect sizes in the present study compare well to the average post-marital-therapy effect sizes for marital therapy outcome studies, which range from .51 to .95 (e.g., see

Bray & Jouriles, 1995, p.463). Although, unlike the present study, these studies contained a no-treatment control group.

Jacobson and his colleagues (Jacobson, Follette & Revenstorf, 1984; Jacobson & Traux, 1991) have recommended that each individual client be categorized as improved if the amount of change for that individual on a given measure exceeded chance expectations (greater than the pooled standard error of the pre-intervention mean). The percentage of couples exceeding the reliable change index after 1-year are as follows. The percentage of husbands showing reliable change in the friendship alone condition was 64.7%; in the conflict alone condition was 60.0%; in the combined condition was 55.6%; and in the Bibliotherapy condition was 75.0%. For wives, the percentage showing reliable change in the friendship alone condition was 62.5%; in the conflict alone condition was 42.9%; in the combined condition was 55.6%; and in the Bibliotherapy condition was 56.2%. These figures compare well to the “slightly more than one third” after 1-year reported by Jacobson et al. (1985, p.553).

Finally, to assess what proportion of couples experienced deterioration a negative reliable change index was calculated. The percentage of husbands who reported experiencing negative change that exceeded the reliable change cutoff score was: (1) friendship alone, 5.9%; (2) conflict alone, 6.7%; (3) combined, 5.6%; and (4) Bibliotherapy, 18.8%. The percentage of wives who reported experiencing negative change that exceeded the reliable change cutoff score was: (1) friendship alone, 18.8%; (2) conflict alone, 21.4%; (3) combined, 22.2%; and (4) Bibliotherapy, 6.3%. Only 2 couples had both members report reliable negative change (2.1% of sample), one couple was in the friendship alone condition, while the other couple was in the combined condition.

Discussion

This article set out to determine what the effects are on friendship quality and destructive versus constructive conflict of two distinct interventions (singly and in combination) designed to enhance couple friendship and teach conflict management skills. For reported destructive conflict, improvement was evidenced across all interventions, but the combined condition produced the lowest reported destructive conflict scores. Across all interventions moderately distressed couples reduced their reported destructive marital conflict significantly more than severely distressed couples.

Problems in couple friendship quality declined for all conditions over time, but the effect was more consistent for moderately distressed couples than it was for severely distressed couples. Indeed, the latter group relapsed from post-intervention to 1-year. Wives reported having more problems in friendship quality than husbands, which is consistent with clinical experience: the major complaint of wives tends to be the decline in intimacy, whereas the major complaint of husbands tends to be that there is too much conflict. It is very interesting that it was the conflict alone intervention, and not the friendship alone intervention, that had the most significant effect on friendship quality. The effects on friendship, however, were larger for husbands than for wives with husbands in the conflict alone intervention showing a steady decline in problems with friendship quality, while there was some evidence of relapse for wives.

It is clear that our intervention effects on friendship quality vary by initial relationship satisfaction. For moderately distressed couples the conflict alone intervention reduced problems in friendship quality for husbands but not for wives, whereas for severely distressed couples the conflict alone intervention reduced problems in friendship quality for wives but increased it for

husbands. Clearly some changes are necessary, as a function of initial relationship satisfaction, in subsequent intervention designs.

The effect sizes and the reliable change indices for these interventions are encouraging, particularly as the interventions are relatively “inexpensive” when compared to the cost of carrying out a typical marital therapy outcome study. We need to be cautious in our conclusions, however, given that we did not have a no-treatment control group. As such, our pooled standard error is lower than in studies that have a no-treatment control group.

The differential effects of the friendship alone condition for husbands and wives is interesting, suggesting that its effects on husbands was far greater than its effects on wives. Our data indicate that while building couple friendship may be adequate for husbands in improving friendship quality, wives require much more. Moreover, dealing with conflict constructively is apparently essential for wives if they are to increase the quality of their friendship with husbands, but perhaps less necessary for husbands. This finding is consistent with the notion that men are more conflict avoidant than women. For instance, it is well known that women more frequently begin conversations about problems than men (Ball, Cowan & Cowan, 1995, Oggins, Veroff & Leber, 1993). Since women tend to raise most of the issues in marriages, constructive conflict discussions may be somewhat more important to them.

Among the limitations of the present investigation is the problem of the common method variance of the outcome measures. Due to budgetary limitations we were unable to use a multi-method assessment package in this study. More recently, we have been able to begin collecting interview and observational data in conjunction with our self-report measures in two additional groups of couples, one group currently undergoing the transition to parenthood and another

group living with their pre-adolescent children. Our early results, regarding the validity of our self-report measures, are encouraging.

What do we recommend in terms of clinical practice at this juncture? Using our data on relapse, effect sizes, reliable change and deterioration, we consider the combined condition to be the treatment of choice, and then the conflict alone condition. The improvements evidenced in the Bibliotherapy condition are both surprising and heartening; although this condition proved to be the riskiest (in terms of deterioration) for husbands. The friendship alone condition was riskiest for wives. Finally, subsequent research and clinical practice might attempt to fit the intervention to the areas of marital functioning most in need of improvement. Our questionnaires appear to have some promise for matching specific components of treatment to specific marital deficits.

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Figure Captions

Figure 1. Problems in friendship quality over time as a function of initial relationship satisfaction.

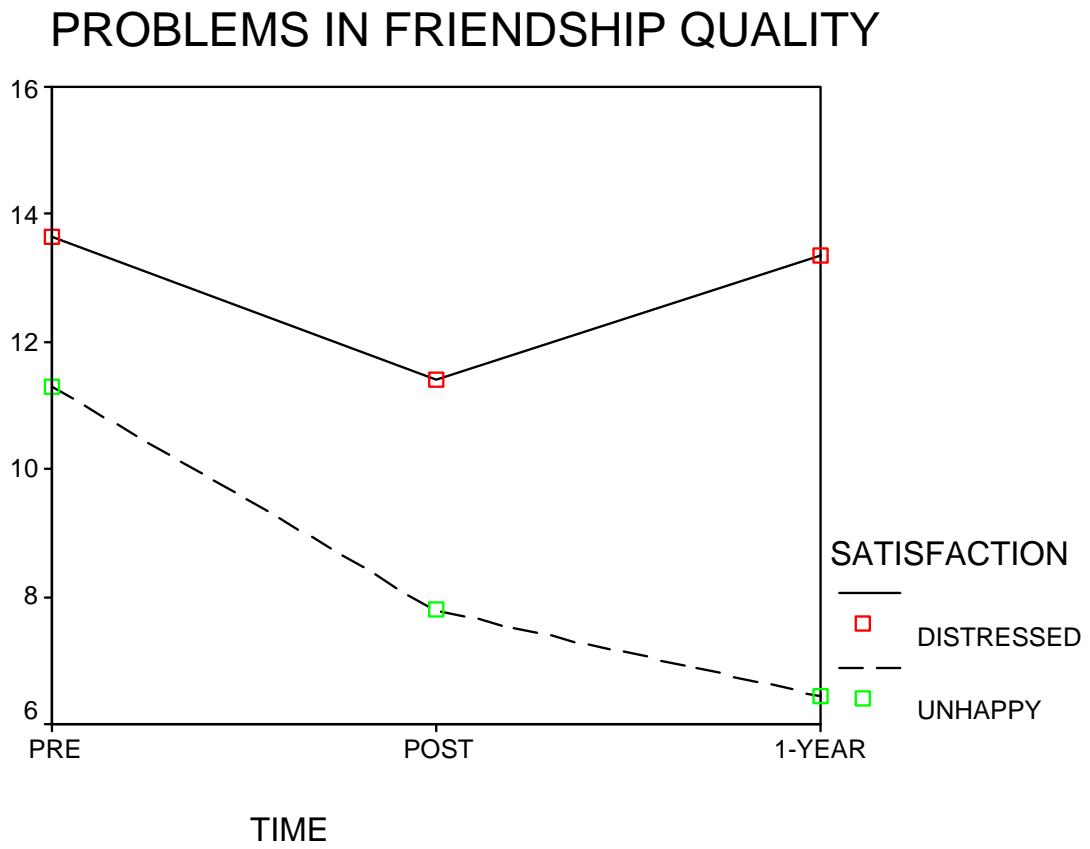
Figure 2. Problems in friendship quality for unhappy (moderately distressed) males and females with and without a conflict management intervention.

Figure 3. Problems in friendship quality for distressed (severely distressed) males and females with and without a conflict management intervention.

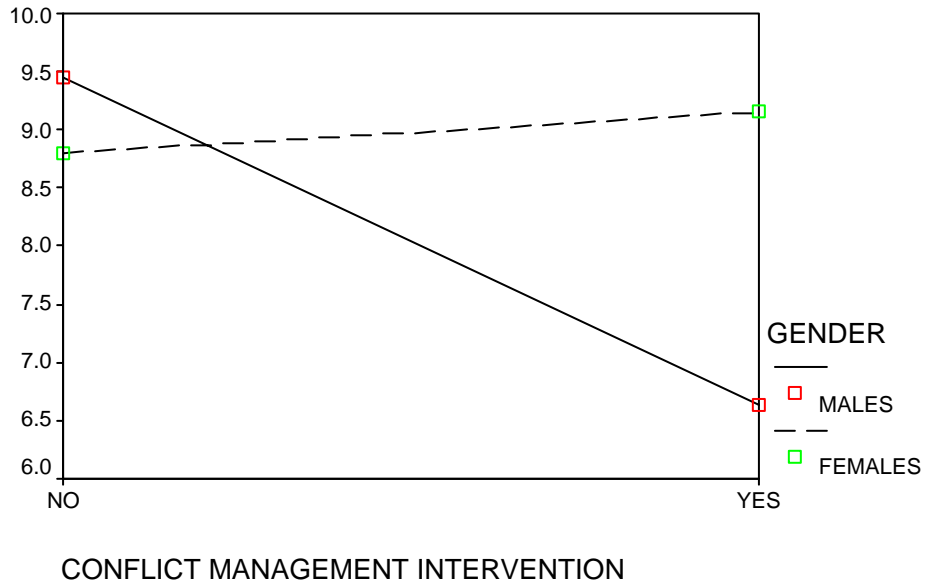
Figure 4. Problems in friendship quality for males and females over time with a conflict intervention.

Figure 5. The effect of friendship-enhancing and conflict-management interventions on reported destructive marital conflict.

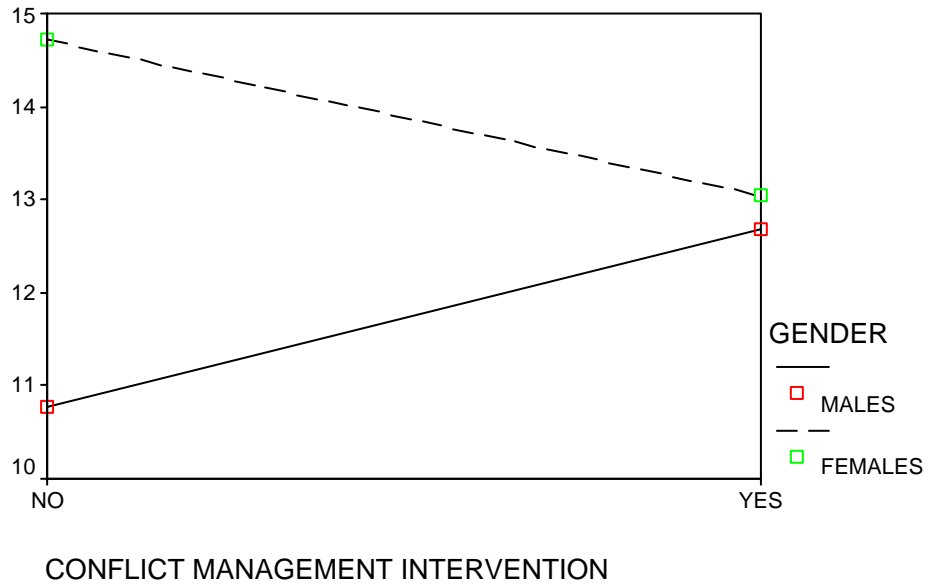
Figure 6. The effect of initial marital satisfaction on reported destructive conflict over time.



PROBLEMS IN FRIENDSHIP QUALITY UNHAPPY COUPLES



PROBLEMS IN FRIENDSHIP QUALITY DISTRESSED COUPLES



PROBLEMS IN FRIENDSHIP QUALITY WITH CONFLICT MANAGEMENT INT

