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The Role of Leaders' Working Alliance in Premarital Education

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Abstract

Premarital (and general relationship) education programs, as a prevention method, have been shown to have a positive effect on marital quality and can prevent divorce. However, it is unclear whether these positive effects are consistent across leaders who conduct premarital education programs. Examining the variability in relationship outcomes attributed to the leaders of premarital education programs, and the role of general therapeutic factors such as working alliance in explaining relationship outcomes, may help increase the effectiveness of these programs. Accordingly, this study examined 31 leaders who trained 118 couples (236 attendees) in a randomized clinical trial of PREP, a research-based and empirically supported premarital education program being compared to a treatment as usual track. The results demonstrated that couples' relationship outcomes from pre to post training varied based on the leader who provided the premarital education training. Both training in PREP and aggregated leader working alliance quality (as rated by attendees) explained variability between leaders in change in attendees' observed negative and positive communication. Leaders' aggregated working alliance quality also explained change in relationship satisfaction. Additionally, attendees' ratings of their leaders' working alliance predicted change in their relationship satisfaction and confidence, and attendees had higher positive communication when they reported better working alliance with their leader.

Keywords

Premarital Education; Prevention of Relationship Distress; Therapist Effects; Working Alliance; PREP

Premarital education programs, which generally include communication and problem-solving skills training and education about risk and protective factors related to healthy relationships, have been shown to produce small to medium-sized effects for improving relationship quality and communication skills (Hawkins, Blanchard, Baldwin, & Fawcett, 2008). Additionally, survey research indicates that having some form of premarital

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education is associated with a lower divorce rate (Stanley, Amato, Johnson, & Markman, 2006). Over the past 30 years, premarital relationship education (and more broadly, relationship education with non-married and married couples) research has moved from clinical trials to dissemination trials with services being provided in the community (e.g., Markman et al., 2004). For instance, the effectiveness of variants of the Prevention and Relationship Education Program (PREP; Markman, Stanley, & Blumberg, 2010) has been supported in experimental and quasi-experimental studies (e.g., Halford et al., 2001; Markman, Renick, Floyd, Stanley, & Clements, 1993; Stanley, Allen, Markman, Rhoades, & Prentice, 2010). Research suggests that PREP delivered by lay and clergy leaders in religious organizations can be as effective as university-trained PREP leaders (Laurenceau, Stanley, Olmos-Gallo, Baucom, & Markman, 2004; Markman et al., 2004, Stanley et al., 2001). As research on PREP and other relationship education programs continue to grow, the field will need a greater understanding of the degree to which community leaders differ in their ability to assist couples using relationship education.

In the psychotherapy research, it is well known that therapists vary in their ability to provide services (e.g., Crits-Christoph et al., 1991; Lutz et al., 2007; Wampold & Brown, 2005). For instance, research from various clinical settings (e.g., outpatient, inpatient) and research designs (e.g., naturally occurring treatment, randomized clinical trials) has demonstrated that, on average, 3% to 10% of the variance in client outcomes are due to therapists (Crits-Christoph et al.; Dinger et al., 2008; Lutz et al.; Wampold & Brown). To place these estimates in perspective, other predictors of client outcomes, such as specific techniques and working alliance—or the agreement between the client and therapist on the goals for treatment and the methods or procedures used to reach those goals, as well as the emotional or relational bond between client and therapist—are of similar magnitude (i.e., 5-8%; Horvath & Bedi, 2002; Wampold, 2001). Thus, the empirical focus on specific interventions and common factors, such as working alliance, should be balanced with a direct examination of those who are providing the treatments.

Despite the growing focus on therapist effects in psychotherapy, it is unclear if the psychotherapy model for exploring therapist effects generalizes to relationship education. Research should begin to elucidate what leader factors are associated with the highest competency and the best couple outcomes. This information could then be used in improve the delivery of relationship education. As such, the current study utilized data from a randomized clinical trial on PREP vs. treatment as usual (TAU) (see Wilmoth et al., 2010 for discussion of TAU in premarital education) to explore leader effects in premarital relationship education. These data are ideal for tests of leader variability in many ways. First, randomization was at the leader level (as compared to the couple level). Second, the study included a large number of leaders, enhancing the power to detect effects at the leader level (Maas & Hox, 2005). Third, this study assessed a variety of relationship outcomes, which will allow us to examine whether leaders play a larger role in some outcomes, such as behavioral change versus attitudinal change. Specifically, we will examine how much variance in both participant-report and observational coding of couple functioning is attributable to premarital education leaders and to leader-specific characteristics, specifically, being trained in PREP and aggregate working alliance.

Psychotherapy research has identified various factors that can account for the differences in client outcomes observed between therapists. Crits-Christoph et al. (1991) meta-analyzed 15 studies and found that use of treatment manuals accounted for a sizeable proportion of the variance in therapist effects. Researchers have also examined whether being trained in a specific type of treatment (e.g., cognitive-behavioral, psychodynamic) accounts for therapist effects. Multiple studies now show that therapist effects are not accounted for by the type of treatment (e.g., Crits-Christoph et al., 1991; Kim et al., 2006), but none of these compared training in a manualized treatment to no training or TAU. Related to the current study, being trained in PREP could account for a sizable proportion of the variance in leaders' competency, which would support the importance of training leaders in empirically-supported prevention methods.

Alternatively, variability among leaders in their couples' outcomes could be due to other factors, such as their general ability to form strong working alliances with their clients. Developing strong working alliances have been related to positive therapy outcomes in individual, couple, and family therapy (e.g., Friedlander, Escudero, Horvath, Heatherington, Cabero, & Martens, 2006; Johnson & Talitman, 1997; Pinsof et al., 2008). Moreover, client ratings of working alliance are generally a better predictor of therapy outcomes than therapist reports of working alliance (Horvath & Bedi, 2002). Yet, some therapists are consistently better at forming high quality working alliances with their clients than others. Between 6% (Marcus, Kasky, & Baldwin, 2009) and 30% (Dinger et al., 2008) of variance in clients' ratings of working alliance can be attributed to the therapist. Therapists who form stronger alliances with their clients generally demonstrate better psychotherapy outcomes (Baldwin, Wampold, & Imel, 2007). In fact, therapists' aggregate working alliance accounts for approximately 97% of the variability in outcomes between therapists (Baldwin et al., 2007). Consequently, leaders'competency may relate to a general ability to develop collaborative relationships and engage in meaningful, goal-directed work with couples, regardless of the specific techniques employed.

Oftentimes, the contribution of therapists' aggregate working alliance quality and the interventions they are trained to employ cannot fully be disentangled (see Elliott, Greenberg, & Lietaer, 2004). Thus, being trained in PREP could increase leaders' ability to use specific techniques to assist couples improve their relationship functioning and may enhance leaders' ability to foster collaboration and engagement in the educational process. For instance, one of the first activities in PREP is to discuss couples goals for their relationship and the program. Additionally, PREP encourages leaders to discuss the rationale for using specific techniques (i.e., communication skills training), which may enhance alignment between the leader and couple. Both of these elements are fundamental to fostering a sound working alliance (Horvath & Bedi, 2002). Given recent efforts to increase therapists' attention to the working alliance (see Barber, 2009; Anker et al., 2009), it is worth considering that empirically-supported treatments may also positively influence leaders' general working alliance ability.

Relationship education delivered to couples includes an extra, complicating factor because two linked individuals receive an intervention at once. To our knowledge, no studies have examined cross-partner effects of working alliance on relationship outcomes. In the only

known study examining working alliance in relationship education, Bourgeois, Sabourin, and Wright (1990) found that clients' ratings of working alliance related to better marital outcomes, but they conducted separate analyses for men and women, making inferences about the relative influence of partners' ratings of working alliance on marital outcomes difficult to interpret. Researchers often address the dependency between partners' scores by conducting separate analyses for men and women (e.g., Bourgeois et al., 1990; Horvath & Symonds, 2004). This approach fails to capture the ways in which partners may influence one another and it does not provide a direct test of gender differences in the association between alliance and outcomes. It could be the case that working alliance is more important for men or women, but we cannot know this information unless gender is included in our models.

Currently, there is limited information on gender differences in the association between alliance and outcomes. Some couple therapy studies have found that men's ratings of alliance are a more reliable predictor of therapy outcomes than their wives' (e.g., Horvath & Symonds, 2004), but others suggest the opposite pattern (e.g., Pinsof et al., 2008; Quinn, Dotson, & Jordan, 1997). Beyond these studies, we know that women are more likely to initiate therapy services and discussions about relationship issues, suggesting that they may be more engaged or committed to the enhancement of the relationship as compared to men (Anker, Duncan, & Sparks, 2009; Gottman, Carrere, Swanson, & Coan, 2000). Thus, as men become more engaged in the relationship education program, their female partners may react positively and benefit more from the interventions. Given the mixed findings from the couple therapy literature on partner and gender effects, the current study tested for gender differences and examined the influence of partners' ratings of working alliance on relationship outcomes.

Hypotheses

Based on previous research (Dinger et al., 2008; Wampold & Brown, 2005) we expected that leaders would account for a small to medium (e.g., 3% to 9%) proportion of the variance in relationship outcomes (measured by observational coding of positive and negative communication and participant-reported relationship adjustment and confidence) and leaders would account for a medium to large proportion of the variance in participant-reports of working alliance (hypothesis 1). We also predicted that both the leaders' aggregate working alliance and being in trained in PREP would account for significant portions of the variance across leaders in relationship outcomes (hypothesis 2). Next, we predicted that leaders who were trained in PREP would have higher working alliance scores than leaders in the TAU condition (hypothesis 3). Lastly, we predicted that participants own perceptions of working alliance, as well as their partners', would be positively related to their own relationship outcomes, after controlling for intervention status (i.e., PREP vs. TAU; hypothesis 4).

Method

We used data collected as part of randomized controlled trial of PREP (see Markman et al., 2004; Stanley et al., 2001). In this effectiveness trial, participants received either the

premarital training services that were naturally occurring (TAU) at the religious organization that would perform their wedding, PREP delivered by a leader at their religious organization (RO-PREP), or PREP at a university (U-PREP).

Participants

Premarital training participants—Though the larger project originally included 306 couples (612 participants), our sample was smaller because of several necessary exclusions. First, we excluded leaders and associated participants from the U-PREP track (n = 121 couples) because the combination of leaders who conducted the U-PREP sessions changed across the sessions in a way that made it impossible to match participants and leaders. Additionally, we excluded leaders (and subsequently the participants trained by them) who only educated one couple (n = 20 couples). We made this choice because it is necessary to have multiple participants per leader to determine if participants who were treated by the same leader had similar outcomes. Thus, of the original 306 couples, 131 met the initial criteria for the current study. Of these, we only included couples who completed both the pre and post-intervention assessments (90.1%), resulting in a final sample of 118 couples (n = 236 participants). Seventy-four couples (n = 148 participants) were in the RO-PREP track, and 44 couples (n = 88 participants) were in the TAU track. All couples were engaged or planning marriage at the pre-intervention assessment. Participants had a median age of 26, a median level of education of 16 years, and a median annual individual income of $20,000-29,999 (median income would be $26,300-39,500 in 2010 U.S. dollars). Participants identified themselves as 79.2% White, 15.7% Hispanic, 2.1% Black or African American, 2.1% Asian American, and 0.4% Native American; 0.4% did not specify their race or ethnicity. At the couple level, 75.4% of couples included two White partners; 24.6% included at least one partner who was an ethnic or racial minority.

Leaders—Thirty-one premarital education leaders or leader pairs provided services for the 118 couples in this study. At some locations there were two leaders who provided the services, thus there was a total of 47 leaders. The average number of couples per leader/leader pair was 3.81 (SD = 2.46). The leaders did not consistently report their demographic information, but basic information about the leaders is known for 78.7% (n = 37). They were 64.9% clergy (e.g., priest, pastor, or minister), with the others being church staff, lay leaders, or affiliated counselors. On average they were 49.32 years old (SD = 11.78). All had some prior experience with premarital training and/or counseling couples (M = 16.55 years, SD = 11.10). More than half of the leaders were male (62.5%) and they were predominately White (94.7%).

Procedure

Religious organizations in a large Western city that served 400 members or more and conducted four or more weddings per year were recruited between 1997 and 2002 to take part in the larger study. After learning about the project and agreeing to send at least four premarital couples for participation, each religious organization was randomly assigned to U-PREP, RO-PREP, or TAU. Those in the RO-PREP condition sent their premarital training providers (leaders) to training in PREP and agreed to provide PREP to couples participating in this research. U-PREP and TAU leaders were offered free training in PREP as

compensation for their participation after four couples from their organization completed pre-intervention assessments.

The interventions received in the TAU and PREP conditions are described in detail in elsewheres (Markman, et. al, 2004; Stanley et al. ,2001) so they are only briefly described here. PREP (Markman et al., 2010) is a research-based and empirically-supported psychoeducational curriculum for couples designed to teach communication and conflict management skills as well as skills and principles to increase positive connections (e.g., fun & friendship) and deepen transformative aspects of relationship (e.g., commitment, forgiveness). Teaching PREP involves using lectures, discussions, activities and videotaped examples of real couples showing negative and positive patterns of interactions. All participants receive workbooks to follow along and for homework. Participants who were included in the current study received PREP from a leader at the religious organization that would perform their wedding and typically completed two weeknight sessions and one weekend day-long session. Training typically lasted 12 hours in the PREP condition.

Participants in the TAU condition received the premarital services that were naturally occurring at the religious organization that would perform their wedding. These services varied across religious organizations. Stanley et al. (2001) classified TAU services as: (a) discussing the wedding, (b) completing standardized personality tests such as the PREPARE (Olson, Fournier, & Druckman, 1989) or FOCCUS instruments (Markey, Micheletto & Becker, 1985), (c) participating in lectures or discussion of various topics related to marriage (e.g., communication, family planning, finances, etc.), (d) completing both standardized assessment and attending lectures, or (e) completing both standardized assessment and attending lectures that also integrated some communication skills training. Premarital training typically lasted from less than 1 hour up to 7 hours in the TAU condition.

Couples in all conditions visited a university for a pre-intervention assessment (pre) and for a post-intervention assessment (post) approximately eight weeks later. At each 1.5 hr visit, they completed questionnaires and a videotaped interaction. They were paid $40 for each assessment. Informed consent was obtained from all participants and all procedures were approved by a university-based Institutional Review Board. For the larger project, participants returned for annual follow-ups after post, but we only used pre and post data in the current study.

Measures

Relationship adjustment—We used the 16-item Marital Adjustment Test (MAT; Locke & Wallace, 1959) to assess relationship adjustment. The scale asks clients to rate the frequency of disagreement in several areas, general happiness, similarity in the desire to spend time together, and thoughts of leaving the relationship. Internal consistency was somewhat low in the current sample (for women, $\alpha = .60$; for men, $\alpha = .59$), but it has been shown to be reliable and valid in other samples (e.g., Crane, Allgood, Larson, & Griffin, 1990). The low internal consistency for our sample may have been due to a restriction of range in the items, as most couples reported high levels of relationship satisfaction, as might be expected for premarital couples.

Observed positive and negative communication—The Interactional Dimensions Coding System, a global coding system for couples' discussions of relationship problems (Kline et al., 2004), was used to code couples' videotaped interactions. Intercoder reliability was high, with intraclass correlations ranging from .66 to .95 (*Mdn* = .87; Kline et al., 2004). For this study, we used a positive subscale (made up of communication skills, support/validation, problem solving, and positive affect; α = .88 for women; .90 for men) and a negative subscale (made up of withdrawal, denial, conflict, dominance, and negative affect; α = .86 for women; .88 for men).

Relationship confidence—We used the 10-item Confidence Scale (Stanley, Hoyer, & Trathen, 1994) to measure couples' confidence that they can effectively manage their relationship and stay together. A sample item is "I believe we can handle whatever conflicts will arise in the future." Items were rated on a seven-point scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) with higher scores indicating more confidence in the relationship, α = .83 for women and .79 for men. Confidence Scale scores have been shown to be related to other relationship and individual characteristics and outcomes in meaningful ways (see Rhoades, Stanley, & Markman, 2009; Whitton et al., 2007).

Working Alliance Inventory-Short Form—(WAI-S, Tracey & Kokotovic, 1989). The WAI-S is a client rated measure of working alliance that consists of 12 items that assess goals and tasks for therapy as well as the relational bond between the client and therapist. These items were rated on a seven-point scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) with higher scores indicating a better working alliance. The WAI-S is a commonly used measure of working alliance and the reliability and validity has been demonstrated in numerous studies comparing the WAI-S to other working alliance scales and therapy outcome (see Horvath & Bedi, 2002 for a review). The language was adjusted to reflect the premarital education context (Wilkens, 1998). Example items are: "[leader name] did not understand what I wanted to accomplish in premarital training (reverse-coded)" and "I felt that [Leader] appreciated me." Some couples took premarital education with two leaders; working alliance scores for the two leaders were highly correlated (*r* = .86) so we used an average of the scores in our analyses. This measure was given at post, α = .84 for men and .82 for women.

Results

Because of the interdependencies in the data structure (individuals nested within couples and couples nested within leaders), we chose to use three-level multilevel regression models for the central analyses. These analyses were conducted using Hierarchical Linear Modeling 6.04 (HLM6; Raudenbush, Bryk, Cheong, & Congdon, 2005). Preliminary analyses indicated that outcomes for couples who had two leaders did not differ from those with one leader.

To test our first hypothesis, that leaders would account for a small to medium proportion of the variance in relationship outcomes and a medium to large proportion of the variance in working alliance, we conducted a baseline model for each relationship outcome measure (observed positive and negative communication, relationship satisfaction, and relationship

confidence) and working alliance. For the baseline models examining relationship outcomes, the post relationship outcome measure was entered as the dependent variable, controlling for pre-education relationship functioning at level 1 (grand mean centered). Based on the variance estimates in these models, we calculated the variability between leaders. To calculate the ICC-leader for working alliance, we conducted similar models wherein and working alliance was the dependent variable with no predictor variables. There was no pre-education variable included in this model because this measure reflects experiences related to the relationship education program. The results from the baseline models showed that leaders accounted for 1.3% to 10.5% of the variance in relationship outcome variables and 29% of the variance in working alliance scores (see Table 1). These results partially support our first hypothesis and generally suggest that leaders accounted for a proportion of variance in their participants' relationship outcomes.

We tested our second hypothesis, that both the leaders' aggregate working alliance and being in trained in PREP would account for a portion of the variance across leaders in relationship outcomes, by adding PREP-trained or aggregate working alliance to level 3 of the baseline models described above. We first tested PREP-trained and working alliance in separate models. Next, we included both variables in a model simultaneously. The first row in Table 2 shows the results from the baseline model for the leader effects. The second row shows the variance in relationship outcomes explained by the leader after accounting for the variance explained by being trained in PREP and the third row shows leader variance remaining after accounting for leaders' aggregate working alliance ability. Finally, the last row demonstrates the variance remaining when both training in PREP and alliance were entered in the model.

The results demonstrated that both leaders' aggregate working alliance and PREP-training status accounted for the majority of the variance in leaders' contribution to the reduction in negative communication and increase in positive communication. The variability between leaders for relationship satisfaction was low (1.3%) and leaders' aggregate working alliance explained the majority of this variability. In contrast, neither working alliance nor being trained in PREP explained a significant amount of the variance in the leader effects for change in confidence. These results partially support our second hypothesis.

Next, we tested our prediction that leaders who were trained in PREP would have higher working alliance scores than leaders in the TAU condition (hypothesis 3) in a model in which working alliance was the dependent variable and PREP-training status (TAU or PREP) was the predictor at level 3. We controlled for participants' gender at level 1. Although there was not a significant difference in working alliance scores between leaders in the RO-PREP and TAU conditions ($\gamma = 0.43$, $SE = .26$, $p = .10$), the effect size for the difference between the two groups was of medium size ($d = 0.56$). Leaders trained in PREP had an average working alliance score of 5.78 ($SD = 0.60$) compared to 5.40 ($SD = 0.82$) for leaders in the TAU condition. Thus, the significance test did not support our hypothesis but the means follow the predicted direction. A post-hoc power analysis revealed low power based on the leader sample size and this effect-size (power = .32, two-tailed), which may have hampered our ability to detect a significant effect.

Finally, with regard to our fourth hypothesis, we tested if participants' and their partners' perceptions of working alliance predicted relationship outcomes after controlling for PREP-training status. We used both partial correlations and multilevel models to test this hypothesis. Table 3 shows the partial correlations between participants' and their partners' working alliance and relationship outcomes (at post) after controlling for pre relationship functioning. (Note that these correlations do not account for the variance at the leader level or intervention status.) These partial correlations suggest that men's alliance scores were significantly related to their own positive and negative communication and confidence at post; whereas women's alliance scores were only related to their own negative communication at post. Women's alliance scores were significantly related to their partners' negative communication and relationship satisfaction scores at post (controlling for pre) and men's alliance scores were related to their partners' positive and negative communication at post. Participants' working alliance scores were moderately correlated with their partners' working alliance scores (r = .67). To directly test for gender differences as well as control for intervention status, we needed a more sophisticated test.

For the multilevel models of cross-partner effects, we used Actor-Partner Interdependence Models (APIMs; Kashy & Kenny, 2000). APIMs examine the mutual relationship between partners, accounting for the dependence between partner's scores, and can directly test for gender differences. That is, the commonalities between partners in their scores on any variable are accounted for and subsequently separate analyses for men and women are not needed. Thus, we used relationship outcomes as dependent variables and participants' own gender, pre relationship functioning, and working alliance, as well as partners' working alliance scores and the interactions between participants' own gender and their own and their partners' working alliance scores as predictor variables. All of these variables were entered at level 1 and were grand-mean centered. We included PREP training status at level 3 (grand-mean centered) and we allowed the level 1 variables to be vary across leaders.

As summarized in Table 4, the results for positive communication demonstrated that participants' own working alliance scores (i.e., actor effects) were not significantly related to change in positive communication, but their partner's working alliance scores were, controlling for all other variables in the models. These relationships were consistent for men and women (i.e., there were no significant gender interactions). In the model for negative communication, neither actors' working alliance nor their partners' working alliance were related to negative communication at post, after controlling for the variance in the other predictors. Additionally, those in the RO-PREP condition demonstrated less negative and more positive communication at post than those in the TAU condition, controlling for all other variables in the model.

The next model examined relationship satisfaction as the dependent variable (Table 4). Actors' working alliance was significantly related to relationship satisfaction at post and this relationship was consistent for men and women. There was no significant relationship between partners' working alliance scores and relationship satisfaction at post, nor was intervention a significant predictor of satisfaction, controlling for other variables in the model.

Lastly, the APIM examining confidence indicated that actors' working alliance scores significantly predicted their own confidence post, but there were no significant effects of partner's scores, nor any significant interactions between gender and working alliance scores. Similar to the relationship adjustment model, intervention status was not a significant predictor of confidence at post, controlling for all other variables in the model. Collectively, these results on cross-partner effects of working alliance partially support our fourth hypothesis.

Discussion

As we expected, leaders accounted for a meaningful proportion of the variability in most relationship outcomes. Specifically, leaders accounted for a significant percentage of the variability in change in observed positive and negative communication (5.2% and 4.5%, respectively) and in self-reported confidence in the future of the relationship (10.5%). For relationship adjustment, leaders accounted for less variability (1.3%). These magnitudes are similar to those found in studies examining the proportion of variability in outcomes attributable to therapists in individual therapy (e.g., Crits-Christoph et al., 1991; Wampold & Brown, 2005). Leaders also accounted for a large proportion of the variance in working alliance (29%), which is similar to Dinger et al.'s (2008) finding that therapists accounted for nearly 30% of the variance in working alliance in an inpatient treatment setting and higher than the 6% found in Marcus et al.'s (2009) study with therapists at university counseling centers The fact that leaders are associated with working alliance scores (as rated by couples) supports the assumption that couples are not merely reflecting their own relationship tendencies in their ratings, but that they are meaningfully coding characteristics of their relationship education leaders.

Taken together, our results suggest that the leaders providing premarital education services seem to make a meaningful difference in not only the way the attendees rate them, but also in couples' relationship outcomes. Although the proportion of variance attributed to leaders was modest in absolute terms, the amount of change in couples' outcomes attributed to receiving empirically-supported premarital education services (vs. control) are of similar magnitude (i.e., approximately 2.2% to 5.9% of the variance; Hawkins et al., 2008). Our findings about the variance accounted for by leaders suggests there may be ways to increase the impact that the intervention has on couples, through helping leaders to be more effective by attending more closely to alliance with their couples. For instance, leaders should be aware of couples' goals for their relationship and work actively to match the content for any specific session with these goals. Additionally, leaders' interpersonal warmth may be exhibited by showing interest in couples before and after classes and by inviting of responses from them during classes.

Given that we examined two leader factors (i.e., being trained in PREP or aggregate working alliance) that may account for the variability between leaders in relationship outcomes, it is important to understand the relationship between these two constructs. Barber (2009) espoused that through training in an intervention, therapists (or leaders in this case) may learn effective strategies to assist clients reach their goals as well as improving their emotional bond with them. Although we found that leaders who were trained in PREP did

not have statistically significantly higher working alliance scores than TAU leaders, the medium effect size for the difference between these groups suggests that with a larger sample of leaders, those trained in PREP might show higher levels of working alliance. Further research is needed before drawing firm conclusions about whether PREP can increase working alliance quality.

Because leaders accounted for part of the variance in their couples' relationship outcomes, we tested whether being trained in PREP and leaders' aggregate working alliance would explain the differences between leaders. The variability between leaders for negative and positive communication was about equally explained (and nearly all of the variance was explained) by knowing whether leaders were trained in PREP and by leaders' aggregate working alliance ability. This finding highlights the dual importance of common process factors and specific factors. These results parallel previous studies of individual therapy outcomes (e.g., Crits-Christoph et al., 1991) by showing that the utilization of a standardized treatment (i.e., PREP) explains some of the variability between leaders. Part of the PREP curriculum emphasizes structured communication skills to manage negative emotions constructively and foster positive communication (Markman, Rhoades, Stanley, Ragan, & Whitton, 2010), which may be why having been trained in PREP explained differences between leaders in couples' communication outcomes, but not in couples' relationship adjustment or confidence. However, many relationship education programs do not find pre-post effects on relationship satisfaction or adjustment because most couples are highly satisfied during this premarital stage (Halford, Markman, & Stanley, 2008). Most importantly, these findings suggest that training leaders in specific intervention strategies (e.g., communication skills) is important, but so may be training them to be effective instructors, as leaders' aggregate working alliance also explained variability in communication outcomes attributed to leaders. Thus, leaders' ability to foster collaborative and purposeful alliances with couples was as important as the specific method employed. Leaders may want to monitor their working alliances (e.g., using verbal check-ins or working alliance measures) to ensure that they are sufficiently working collaboratively with the couples they serve (Anker et al., 2009).

We also found that the variability between leaders for attendees relationship confidence was not explained by their aggregate working alliance ability or by whether a leader had been trained in PREP. These findings raise questions about the ways in which leaders contribute to their couples' confidence in maintaining a healthy relationship and using the skills they have learned. It could be that leaders somehow convey a sense of confidence in a couple's relationship, independent of working alliance, and that this confidence is associated with the couple's own confidence. Other unmeasured characteristics of leaders may also influence couple confidence. Future research is needed to better understand this finding.

Lastly, we examined whether participants' own and their partners' ratings of working alliance uniquely predicted relationship outcomes, over and above having received PREP versus TAU. Similar to what Stanley et al. (2001) found using the same data set, but without examining working alliance or controlling for leader effects, we found that receiving PREP (versus TAU) predicted both positive and negative communication change from pre to post, even after accounting for participants' working alliance scores. These findings suggest an

additive benefit for couples who received PREP, beyond their working alliance with their leaders, which also assisted their communication quality. However, working alliance also benefited participants' positive communication indirectly through their partners' view of the alliance. That is, partners' working alliance scores were related to positive communication at post. It could be that as participants became more engaged with their leaders, their partners developed more positive sentiments and were more likely to react positively to the information they were learning. Participants' ratings of working alliance were also related to increased confidence in their relationships and higher relationship adjustment. The collaborative process with the leader during the program may have enhanced participants' attitudes that they will be able to continue the progress after the program. Additionally, prior work has shown that working alliance is related to a capacity to develop attachments to other people (see Horvath & Bedi, 2002), thus, the association between working alliance and relationship adjustment may reflect a general ability to form and attend to relationships.

Limitations

The current findings should be interpreted with recognition of the study's limitations. First, our sample included fairly well-adjusted couples seeking wedding services at religious organizations. While most couples marry through religious organizations (Stanley et al., 2006) and premarital services are intended to assist couples who may not need intensive services, the degree to which our results will replicate in other settings is unknown. Second, we had sparse data about the leaders' demographic characteristics, allowing us to only test two leader-level variables to explain variability between leaders. Future research should continue to explore other leader characteristics that may account for leader effects, such as leaders' teaching ability. Third, we only had participants' ratings of working alliance. Leaders' perceptions of working alliance could provide additional information about the relational aspects of the alliance-outcome effects. We also adapted the WAI for this context, thus further validation of this instrument is warranted. Future research should consider testing whether specific training in fostering working alliance in premarital education could affect outcomes. Fourth, because alliance was assessed at post, we were unable to disentangle the directionality of the alliance-outcome association. Finally, we did not have information about the length of time couples knew the leader prior to the training and the TAU group did not have a set protocol or a matching length of time for premarital education, which may have influenced working alliance ratings. Yet, in practical terms the use of TAU group provides a useful comparison to the services that are naturally occurring.

As relationship education programs become disseminated to leaders in the community, the training of leaders in systematic empirically-supported interventions could have many benefits (Markman et al., 2004). Yet, these programs should balance the focus of specific techniques with a focus on the quality of the relationship between leaders and couples. As this is one of the first studies to examine working alliance in relationship education, future research should continue to consider how alliances are formed with couples in these programs.

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Table 1

Summary of Baseline Models for Relationship Outcomes, Satisfaction with Services, and Working Alliance

	Pos. Comm. *γ (se)*	Neg. Comm. *γ (se)*	Rel. Adj. *γ (se)*	Confidence *γ (se)*	Working Alliance *γ (se)*
Intercept (γ_{000})	**4.20** ** **(.12)**	**3.42** ** **(.11)**	**128.19** ** **(.99)**	**6.62** ** **(.04)**	**5.62** ** **(.13)**
Pre score ($\pi 1\, jk$)	**0.38** ** **(.07)**	**0.43** ** **(.07)**	**0.49** ** **(.05)**	**0.59** ** **(.10)**	--
Random Effects					
Client variance	0.59	0.30	98.83	.11	.36
Couple variance	1.04	0.96	46.38	.05	.40
Leader variance	0.09	0.06	1.89	.02	.32
% attributed to client	34.3	22.7	67.2	63.2	33.3
% attributed to couple	60.4	72.7	31.5	26.3	37.0
% attributed to leader	5.2	4.5	1.3	10.5	29.6

** *Notes.* $p < .001$. Due to rounding, some of these figures do not add up to 100 percent.

Table 2

Percentage of Leader Variance Accounted for by Intervention Status or Leader Average Working Alliance

Variables at Level 3	Positive Comm.	Negative Comm.	Rel Adj.	Confidence
None (baseline model)	5.2	4.5	1.3	10.5
Intervention status only	<1.0	<1.0	1.2	10.5
Working alliance only	<1.0	<1.0	<1.0	10.5
Intervention and working alliance	<1.0	<1.0	<1.0	10.5

Notes. The numbers reflect the percent of variability between leaders after accounting for intervention status and/or working alliance. Variability between leaders was calculated by dividing leader variance by the total variance in the model.

Table 3

Partial Correlations between Actors' and Partners' Working Alliance and Relationship Outcomes

	Men		Women	
	Self	**Partner**	**Self**	**Partner**
Positive Communication	.24**	.18	.13	.28**
Negative Communication	−.21*	−.23*	−.21*	−.21**
Relationship Adjustment	.16	.15	.15	.08
Confidence	.24**	.06	.10	.15

*Notes. $p < .05$,

**$p < .01$.

Correlations are working alliance scores and post relationship functioning scores, controlling for pre relationship functioning.

Table 4

Summary of Fixed Effects for Actor-Partner Multilevel Models: Working Alliance Predicting Relationship Outcomes

	Pos. Comm. γ (se)	Neg. Comm. γ (se)	Rel. Adj. γ (se)	Confidence γ (se)
Intercept (γ_{00})	4.19*** (.09)	3.46*** (.08)	127.92*** (.94)	6.59*** (.05)
Pre-Score ($\pi 1\,jk$)	0.41*** (.08)	−0.43*** (.07)	0.40*** (.07)	0.58*** (.10)
Gender ($\pi 2\,jk$)	−0.03 (.08)	0.06 (.06)	−0.13 (1.01)	−0.19** (.04)
Working Alliance				
Actor ($\pi 3\,jk$)	−0.14 (.15)	−0.03 (.09)	3.25* (1.32)	0.08* (.04)
Partner ($\pi 4\,jk$)	0.31* (.14)	−0.17 (.17)	−0.95 (1.54)	0.03 (.03)
Gender × Actor ($\pi 5\,jk$)	0.23 (.25)	−0.08 (.22)	−0.84 (1.90)	0.01 (.07)
Gender × Partner ($\pi 6\,jk$)	−0.28 (.26)	0.03 (.23)	3.18 (2.26)	0.04 (.07)
Intervention ($\gamma 001$)	0.52** (.16)	−0.50* (.19)	−1.32 (1.74)	0.02 (.06)

*Notes. $p < .05$,

** $p < .01$,

*** $p < .001$.

The random slopes for positive and negative communication and for relationship adjustment were all non-significant (*ps* > .05). For confidence, the Gender × Actor and Gender × Partner Working Alliance interaction significantly varied across leaders, (variances = 0.03, and .04, *ps* < .01, respectively)