Published in final edited form as:

Mil Psychol. 2017 July ; 29(4): 283–293. doi:10.1037/mil0000155.

Associations Between Participant Ratings of PREP for Strong Bonds and Marital Outcomes 1 Year Postintervention

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Abstract

After completing a relationship education program, collecting participant evaluations of the program is common practice. These are generally used as an index of “consumer satisfaction” with the program, with implications for feasibility and quality. Rarely have these ratings been used as predictors of changes in marital quality, although such feedback may be the only data providers collect or have immediate access to when considering the success of their efforts. To better understand the utility of such ratings to predict outcomes, we evaluated links between participant ratings and changes in self-reported marital satisfaction and communication scores one year later for a sample of 191 Army couples who had participated in a relationship education program delivered by Army chaplains (PREP for Strong Bonds). Overall ratings of general satisfaction with the program and the leader did not predict changes in marital outcomes one year later, whereas higher ratings of how much was learned, program helpfulness, increased similarity in outlook regarding Army life, and helpfulness of communication skills training predicted greater change in communication skills one year later. Higher ratings of items reflecting intent to invest more time in the relationship, and increased confidence in constructive communication and working as a team with the spouse predicted greater increases in both marital satisfaction and communication skills one year later. The constructs of intention and confidence (akin to perceived behavioral control) suggest that the Theory of Planned Behavior may be particularly useful when considering which Army couples will show ongoing benefit after relationship education.

Keywords

military; marriage; relationship education; communication; prevention

Military families face many stressors, such as deployment, separations, frequent moves, and risk related to combat operations, on top of the typical challenges of marital and family life (e.g., Bakhurst, Loew, McGuire, Halford, & Markman, 2016). Responding to the need to support Army families and individual soldiers via family resilience, the Army has invested in a range of family services. With the motto “Stronger Relationships Mean a Stronger Army”, the Army Strong Bonds Program offers a range of relationship education and skills training programs (www.strongbonds.org) typically led by unit chaplains. Reviews of existing research on relationship education programs across a variety of (usually civilian) samples suggest that these programs generally have positive effects on relationship quality (Hawkins, 2015; Hawkins & Erickson, 2015). However, in all relationship education there is variability in effects. Some variability in effects may be explained by characteristics of the couple (Wadsworth & Markman, 2012), but additional research points to the importance of how well couples rate aspects of the program and program leader, such as couples' working alliance with the leader and ratings of overall satisfaction with the program (Bourgeois, Sabourin, & Wright, 1990; Owen, Antle, & Barbee, 2013; Owen, Antle, & Barbee, 2014; Owen, Rhoades, Stanley, & Markman, 2011; Quirk, Owen, Inch, France, & Bergen, 2014). In general, couple ratings of overall satisfaction with the program and greater alliance with the leader predict better outcomes from relationship education. For example, Owen et al. (2014) averaged ratings regarding how much participants found the education program useful and enjoyable, and found that more positive ratings predicted greater self-reported marital adjustment and communication quality six months later. The purpose of the current study was to address whether various participant ratings of relationship education predicted later changes in marital outcomes for Army couples who participated in a specific relationship education program offered within Strong Bonds.

The specific relationship education program within Strong Bonds of interest here is “PREP for Strong Bonds.” PREP stands for the Prevention and Relationship Education Program (Markman, Stanley, & Blumberg, 2010). PREP is a psychoeducational workshop designed to teach couples both the skills and knowledge they need to prevent relationship distress over time or improve current relationship functioning. “PREP for Strong Bonds” refers to the specific adaptation of PREP for use by the Army Chaplain Corps. The content was modified for the Army, such as adding modules on deployment and separation, consistent with best practice recommendations for relationship education for military couples (Bakhurst et al., 2016). Given the fact that variants of PREP have been widely used across various branches of the military since 1991, with an estimated 8,500 chaplains trained in the program and 375,000 military personnel served to date, a test of the effectiveness of PREP for Strong Bonds and evaluations of the factors that predict variability in effects for Army couples is warranted. In fact, a large scale randomized clinical trial of the program was begun in 2007. Thus far, the results of this trial indicate significant divorce reduction effects one and two years after the intervention, as well as significant positive effects on some marital quality outcomes immediately after the intervention, but no marital quality effects one year after intervention (see review by Allen et al., 2015). However, longer term marital quality outcomes were moderated by different couple level risk and demographic factors (Allen et al., 2015). Whereas PREP for Strong Bonds effects related to specific couple characteristics have begun to be explored, there have been no studies to date examining how the

participants' ratings of the program itself relate to long term marital outcomes. Given the importance of such ratings in predicting outcomes found by Owen et al. (2014) and others, the current study directly addresses this question.

Increased knowledge regarding the degree to which participant ratings predict improvement in marital outcomes after PREP for Strong Bonds is also important due to the fact that participant rating forms are often the only data available to providers to evaluate the impact of their services and are generally considered an important aspect of monitoring quality of services. In fact, collecting such participant ratings of services is common practice in overall program evaluation (e.g., Spaulding, 2014), assessment of mental health services (Lambert, Salzer, & Bickman, 1998; Oei & Green, 2008), and evaluation of patient health care (Asadi-Lari, Tamburini, & Gray, 2004). Not only are such ratings part of involving the client directly in evaluating the quality of services, but these ratings are a potential immediate source of prediction of critical outcomes, such as treatment adherence and impact.

Despite the potentially important program evaluation and feedback role of couple ratings of PREP for Strong Bonds, these ratings have not yet been evaluated as predictors of actual outcomes for Army couples enrolled in this trial. Thus, program leaders, such as Army Chaplains, have little guidance on how to interpret such participant evaluations as markers of impact. The goal of the current study was to examine the degree to which Army couple ratings of PREP for Strong Bonds predict marital quality outcomes one year after the program. Whereas Owen et al. (2014) used averages of general satisfaction with the program to predict outcomes, we examined the degree to which outcomes were predicted by each individual participant rating. Specifically, participants were asked for overall ratings of program satisfaction and helpfulness, leader quality, and the helpfulness of specific program components. Moreover, respondents rated the degree to which attending the program increased their confidence in relationship communication skills, intention to invest time in the relationship and work as a team with the spouse, and improvements in specific Army life outcomes (e.g., confidence in marriage during deployment and reintegration). This type of participant reaction to training survey, assessing the extent to which couple education is perceived as useful and enjoyable, is commonly used in program evaluation and empirical research (e.g., Owen, Antle, & Barbee, 2014). The items map onto the recommended items for program evaluation for variants of PREP across multiple service and research settings (Stanley & Markman, 2007), wherein items should reflect the perceived impact of specific intervention targets, the helpfulness of specific aspects of the intervention, and overall satisfaction. The items used in this study also honor the military context of the intervention by asking about the impact of the intervention on aspects of Army life.

Thus, the current study tested which participant ratings predicted positive relationship outcomes for Army couples who participated in PREP for Strong Bonds. Consistent with relationship education evaluations noted above, for each of the evaluation items, we hypothesize that more positive program evaluation ratings provided by participants will predict increases in marital satisfaction and communication skills one year after the intervention. Due to the fact that participant ratings are often the only immediate outcome data available to Chaplains providing this program, the results may provide important

insights for providers into how these data may predict actual impact of the program longer term.

Method

Procedures

Data from this study were obtained from the intervention (not control) couples in a larger randomized clinical trial of PREP for Strong Bonds as delivered by Army chaplains to Army couples. A detailed review of procedures and the intervention can be found in (*masked for review*)¹. In brief, to be eligible for the study, couples had to be married, age 18 or over, fluent in English, with at least one spouse in active duty with the Army. Couples could not have already participated in PREP, and they had to be willing to be randomly assigned to intervention or to an untreated control group. Couples were informed that the study entailed multiple assessments (each taking approximately 1 hour) over the course of the next four years, with compensation for the assessments ranging from \$50 to \$90 per person per assessment (compensation increasing over time). Recruitment was conducted via brochures, media stories, posters, and referrals from chaplains; recruitment materials clearly specified eligibility requirements and compensation.

Prior to random assignment or intervention, each spouse separately completed baseline (pre) questionnaires under the supervision of study staff. After the couple completed pre assessment, they were randomly assigned to the intervention group (249 couples) or the control group (229 couples). There were 22 separate iterations of the intervention to accommodate multiple groups of couples. After their iteration was complete, each spouse separately completed post intervention questionnaires, including the program evaluation. Subsequently, follow up questionnaires were administered at approximately six month intervals. For these follow up assessments, each spouse was sent a unique link to an online survey that could be completed even during deployment. Individuals could opt for a mailed questionnaire if they preferred. The current study uses data from the baseline (pre) assessment, the post assessment, and the one year follow up assessment.

Intervention

The intervention was a version of PREP adapted for use by Army Chaplains with Army couples (Markman, Stanley, & Blumberg, 2010; Stanley, Markman, Jenkins, & Blumberg, 2006). PREP is based upon research regarding factors related to healthy marriage (Markman & Rhoades, 2012). The workshop consisted of two parts: a one-day training on post followed by a weekend retreat at a hotel off post with a total of 14.4 hours of content. Modules included communication, problem solving, and affect management skills, insights into relationship dynamics, principles of commitment, fun and friendship, forgiveness, sensuality and sexuality, expectations, core beliefs, and deployment/reintegration issues. We obtained adequate audio recording of 17 out of the 22 iterations of the intervention to code

¹Whereas the larger trial examined the intervention at two sites, for the current paper we focused exclusively on Site 1. As described in (*masked for review*), compared to Site 2, the sample at Site 1 was much larger and more representative of young Army couples, the intervention was more representative of how PREP for Strong Bonds is actually delivered in the US Army, and there were 5.5 times the number of interventions which is important for variability of cohort at level 3 in our analytic model.

chaplain fidelity to the lesson material from 1 (*Very poor*) to 5 (*Excellent*). The inter-rater correlation for coding fidelity was .88, and the average fidelity rating across iterations was 3.98.

Participants

From the 249 couples assigned to the intervention condition, individuals were selected for this study if (a) both members of the couple had attended at least a portion of the on post day and/or the weekend retreat, (b) the couple was still married at the one-year assessment point, and (c) the individual completed the follow up assessment. Attending at least a portion of the intervention was required for the current paper so that participant evaluation of the program was based on actual experience with at least some part of the program. Being still married at the one-year assessment point was required as only still married individuals received the marital quality measures used as outcome measures in the current study. These selection criteria resulted in a total sample of 368 individuals (181 males, 187 females) from 191 couples.

At the baseline (pre) assessment, husbands averaged 28.2 years of age ($SD = 5.7$); wives 27.3 ($SD = 6.1$). Sixty-eight percent of husbands were white non-Hispanic, 12.7% were Hispanic, 10.5% African American, 1.7% Native American/Alaska Native, 0.6% Hawaiian or Pacific Islander, 2.2% Asian, 3.3% endorsed mixed race/ethnicity, and 1.1% did not endorse a race/ethnicity. Most (68.4%) of wives were white non-Hispanic, 13.9% were Hispanic, 9.6% African American, 1.6% Hawaiian or Pacific Islander, and 6.4% endorsed mixed race/ethnicity. Almost all husbands (97.2%) were Active Duty Army (2.8% were in the study due to the wife being Active Duty Army), whereas almost all wives (91.4%) were civilian spouses of Active Duty Army males (8.6% of wives were Active Duty Army or Reserves). Husbands' modal income (endorsed by 40.3% of men) was between \$20,000 and \$29,999 a year, while wives' modal income (endorsed by 65.2% of women) was under \$10,000 a year. High school or an equivalency degree was the modal highest degree (70.2% of the husbands and 58.9% of wives). Couples had been married an average of 4.84 years ($SD = 4.54$), and 70.1% reported at least one child living with them at least part time.

Measures

Program evaluation—At the post assessment, husbands and wives provided ratings on 18 separate items (see Table 1). We analyze each item separately, but for presentation purposes have organized these items into categories of *Program Overall*, *Leader Effectiveness*, *Confidence and Intention* regarding relationship skills, *Helpfulness of Specific Program Attributes*, and *Impact on Army Life*². It should be noted that this organization is not based on a psychometric procedure, such as factor analysis, but simply on a grouping that appeared useful to us. Although providers can construct the items that best map on to their own program, perhaps some will wish to use some number of the items evaluated in this current paper. Future users of the items are free to use, adapt, and group items as best fits their conceptualization or further empirical evaluation. Each specific item is included in Table 1,

²Whereas the impact on Army life items included items related to confidence, we organized these confidence items within the Impact on Army Life section rather than the Confidence and Intention section due to the desire to understand outcomes related to Army life separately.

along with the mean and SDs for the items. All items except for one were answered on a scale ranging from 1 to 7, with anchors specific to the item. For example, for items asking about “helpfulness,” the options ranged from 1 = Least Helpful, 4 = Somewhat Helpful, and 7 = Most Helpful. For other items, such as satisfaction with the program, impact on Army Life, and confidence, items ranged from 1 = Less True to 7 = More True. Finally, the single item about leader quality and effectiveness was rated with an item ranging from 1 = Needs Improvement to 5 = Excellent. Thus, for all items, a higher score indicates a more positive endorsement of the program and its impacts. As seen in Table 1, overall ratings of the program were generally high (ranging from 6.09 to 6.46). The leader quality rating was also high (4.15; recall that this one item was on 5 point scale). Ratings across other aspects of impact and helpfulness ranged from 4.63 (*Army family connection* item and *Army similar outlook* item) to 6.58 (*Time with spouse help* item).

Marital satisfaction—The Kansas Marital Satisfaction Scale (KMS; Schumm, Paff-Bergen, Hatch, & Obiorah, 1986) is a brief (3-item) scale assessing satisfaction with the marriage, the partner as a spouse, and the relationship with spouse. Each item is answered on a scale of 1 (*extremely dissatisfied*) to 7 (*extremely satisfied*); scores here are an average of the 3 items. This scale has strong reliability and validity (Schumm et al., 1986) and provides a pure global satisfaction rating without including other aspects of relationship functioning. Internal consistency in the current sample at the one-year assessment was excellent ($\alpha = .96$). Crane, Middleton, and Bean (2000) suggest that an average score of 5.67 is an optimal cutoff score for the KMS wherein couples higher than this would be considered satisfied and couples lower than this would be considered dissatisfied. At the baseline (pre) assessment, the sample was very close to this cutoff ($M = 5.62$), and at the one-year follow-up the average was above this cutoff (5.78; see Table 1 for means and standard deviations).

Communication skills—From the larger Communication Skills Test (Saiz & Jenkins, 1995), 10 items were used to measure the type of communication skills taught in PREP, while avoiding the specific jargon of PREP (e.g., “speaker-listener skills”). Each item is answered on a scale where 1 = *almost never*, 4 = occasionally, and 7 = *almost always*; scores are an average of the 10 items. Prior studies support the reliability and validity of this measure (Stanley et al., 2001, 2005), and good reliability was found at the one-year assessment ($\alpha = .85$). The means and standard deviations for the pre-test and one-year assessment are in Table 1; at the baseline assessment, the mean corresponded with “occasional” use of the skills.

Results

Data Analytic Models

Multilevel models were used to account for the dependencies in the data. Following the recommendations of Atkins (2005), we used 3 level models where individuals were represented at level 1, couples were represented at level 2, and the specific group in which couples completed the intervention was represented at level 3. To run these models, we used the HLM 7 software (Raudenbush, Bryk, Fai, Congdon, & du Toit, 2011). A basic level-1

model that we used for all variables is presented below in which i = individual spouse, c = couple and g = group/iteration. An example outcome here is marital satisfaction:

$$\text{One Year Marital Satisfaction}_{icg} = \pi_{0cg} + \pi_{1cg}(\text{Program Evaluation Item})_{icg} + \pi_{2cg}(\text{Pre-Test Marital Satisfaction})_{icg} + e_{icg}$$

At level-2 of the model, only the random effect of the intercept was kept so that the model would converge. At level-3, all random effects were kept in the model. In all models, predictor variables were grand-mean centered to reduce multicollinearity and to make the intercept terms meaningful. Prior to running our main analyses, we first tested whether there were gender differences in our main analyses by running models in which the main model as described above also included gender and the interaction of gender and the individual program evaluation items. In addition, in these models, we only included the random effect of the intercept at level 3 to increase power to detect interactions with gender. Across these models, gender did not have a main effect or interaction with predictors. Thus, we present the main results excluding gender from the models and results should be interpreted as the partners' program evaluation ratings predicting marital quality outcomes while controlling for their pre-test level of those marital quality variables. Controlling for pre-test levels means that we are estimating *change* in marital outcomes from baseline (pre) to the one year follow-up. Results are organized below by the type of program evaluation item and presented in Table 1.

Program Overall—None of the *Program Overall* items predicted changes in marital satisfaction. However, greater *overall learning* ($b = 0.11$, $SE b = 0.05$, $t(21) = 2.21$, $p < .05$) and *overall helpfulness* ($b = 0.13$, $SE b = 0.05$, $t(21) = 2.37$, $p < .05$) predicted a greater increase in communication skills scores at one year.

Leader Effectiveness—Neither *leader quality* nor *leader confidence* as rated by the participants predicted changes in outcomes at one year.

Confidence and Intention—All three items related to *Confidence and Intention* regarding skills taught in the intervention predicted both marital satisfaction and communication skills change one year later. That is, greater *communication confidence*, *investment intent*, and *teamwork intent* all predicted greater increases in marital satisfaction one year later ($bs = 0.22, 0.15, 0.19$; $SE bs = 0.07, 0.07, 0.08$, $ts(21) = 3.00, 2.17, 2.56$; $ps < .01, < .05, < .05$). The same results held for the prediction of greater communication skills ($bs = 0.20, 0.17, 0.11$; $SE bs = 0.06, 0.05, 0.05$, $ts(21) = 3.61, 3.11, 2.25$; $ps < .01, < .01, < .05$).

Helpfulness of Specific Program Attributes—Higher scores on *communication help* predicted a greater positive change in communication skills one year later ($b = 0.18$, $SE b = 0.05$, $t(21) = 3.87$, $p < .001$), but did not predict greater change in overall marital satisfaction. *Networking help*, *get away help*, *time with spouse help*, and *principles help* did not significantly predict a change in marital outcomes.

Impact on Army Life—*Army similar outlook* predicted greater change in communication skills one year later ($b = 0.09$; $SE\ b = 0.04$; $t(21) = 2.42$; $p < .05$) and the result for marital satisfaction approached significance in the same direction ($b = 0.10$, $SE\ b = 0.05$, $t(21) = 1.94$, $p < 0.07$). Similarly, *deployment confidence* trended toward predicting greater increases in marital satisfaction scores ($b = 0.12$, $SE\ b = 0.06$, $t(21) = 2.04$, $p < 0.06$).

Discussion

Utilizing stringent tests of change following a relationship education program, we found that certain participant ratings of the intervention modestly predicted positive increases in some aspects of marital quality one year after the intervention. Specifically, improved communication skills one year after the intervention were predicted by participant ratings of overall learning, program helpfulness, confidence in the ability to discuss issues constructively and work more as a team, intentions to invest more time in the relationship, helpfulness of the communication skills training, and a sense of an increased similarity in outlook regarding Army life. When predicting marital satisfaction one year later, we found that confidence in the ability to discuss issues constructively and work more as a team, as well as intentions to invest more time in the relationship predicted greater increases in marital satisfaction one year later. Counter to hypotheses, we did not find that overall satisfaction with the program, ratings of the leaders, ratings of specific aspects of the program other than communication skills, or most ratings of impacts on Army life predicted longer-term change in marital outcomes.

Many of the items we assessed map on to Content (e.g., skills) and Process (e.g., context) components as delineated by Foran, Adler, McGurk, and Bliese (2012). Specifically, some items ask about skills learned from the intervention, such as constructive communication. Other items ask about the importance of the interpersonal context or process elements of the intervention, such as meeting other couples. Foran et al. (2012) found that participant ratings of both aspects of intervention were important and predicted improvement in postdeployment adjustment in a military sample. However, in the current study we found that the types of items most consistently predictive of improvements one year later (i.e., confidence and intention) were especially similar to constructs evaluated in the Theory of Planned Behavior (TPB; Azjen, 1991). TPB is a well-tested and utilized theory of behavior and behavior change, particularly in health behavior. The TPB posits that intentions to engage in a certain behavior are the best predictors of behavior. In turn, intentions are predicted by attitudes toward the behavior, perceived norms regarding engaging the behavior, and confidence in one's ability to engage in the behavior. Although this theory is not an explicit component of PREP for Strong Bonds, many aspects of the intervention may address these TPB constructs. For example, initial modules review research about the importance of intervention targets (e.g., communication skills) in marital satisfaction and stability; such information should improve attitudes towards such targets. Moreover, the intervention is delivered in a group setting with content adapted for the Army context and delivered with Army resources (e.g., unit Chaplains); such an approach may increase perceived norms about other couples engaging in intervention targets and the Army culture supporting such skills. Finally, providing skills training and planning implementation of

skills after the intervention should further increase confidence in mastery of skills and intention to utilize skills.

Despite these areas of implicit convergence with TPB in the actual intervention, the participant evaluations utilized in this study did not explicitly include TPB measures adapted for PREP intervention targets. However, an item such as “As a result of attending SB, I have confidence that my partner and I can talk about things constructively” may represent confidence, whereas items such as “As a result of attending SB, I will invest more time in our relationship” and “As a result of attending SB, I think my partner and I will work more as a team” may represent aspects of intention. These items significantly predicted change in both marital satisfaction and communication skills. It should be noted that two other Army specific confidence items, relating to marital adjustment during and after deployment (*deployment confidence* and *transition confidence*) were not consistent predictors; it may be that outcomes focused more on deployment and reintegration would have shown effects from these items. That is, TPB measures recommend specific mapping between predictor items and behavioral outcomes (Ajzen, 2011a); thus, if we had one year outcomes focused on “staying strong through deployment” and having a “smoother transition” upon return from deployment, these Army specific confidence predictor items may have shown some predictive utility for these outcomes.

To our knowledge, there is no research using TPB to evaluate marital interventions. Our current results suggest that participant program evaluation for relationship education could more systematically assess TPB constructs. Whereas the utility of the TPB for program evaluation has been both advocated (Ajzen, 2011b) and criticized (Sniehotta, Pressau & Araújo-Soares, 2014), our results suggest the TPB may be a useful way to measure change and potential change. Thus, we recommend development in this area to inform the utility of such measurement for providers wishing to estimate potential impacts of intervention and follow up with clients accordingly. Our current findings suggest that it may be more theoretically and statistically powerful in the future to utilize a multi-item measure based on the TPB for marital outcomes.

As noted above, we did not find that ratings of overall satisfaction and leader quality predicted marital quality one year later. These findings contrast somewhat with those of Owen et al. (2014) who found that averages on a survey assessing the degree to which participants found a relationship education program “enjoyable and useful” (p. 102) predicted relationship satisfaction and communication patterns six months later. In the current study, overall appraisals of learning a lot and finding the program helpful predicted communication skills one year later, but not relationship satisfaction. However, in Owen et al., individual participants (not couples) in a high risk context (low income) completed the intervention, with baseline and follow up relationships satisfaction scores below the averages found for married and living together couples, and with a larger variance than found in these couples (Sharpley & Rogers, 1984). Thus, the participants in Owen et al. (2014) were likely more relationally distressed than the current sample and had ample variability in the outcomes, which likely supported inferential tests predicting change. The current findings should not undermine the importance of such ratings. Although our study did not find that general ratings of satisfaction with the program and leader predicted later change in marital

quality, prior literature with different samples suggests that such ratings can predict outcomes; moreover, such ratings are still important basic information for providers. Without high ratings in these basic areas, it is unlikely that participants will attend interventions; thus, such ratings are an important aspect of feasibility and consumer uptake.

When considering our pattern of findings, one should note that even the significant effect sizes observed in the study were small. However, it is important to realize that we used quite stringent tests of effects, by controlling for the pre-test when evaluating outcomes and accounting for possible variation due to the specific group the couple was in. In addition, predicting any change is striking when considering how high couples rated their own relationship prior to participation and the overall very positive ratings of the program. For example, marital satisfaction scores were quite high, with a mean of 5.62 on a 1 to 7 scale at baseline. Participants also rated the program highly; for example, overall satisfaction with the program was rated an average of 6.27 on a 1 to 7 scale. Whereas couples rating their relationship and the program highly is very desirable clinically, it does make statistical prediction a challenge. Thus, there were restriction of range issues in some predictors and outcomes. As noted above, in a sample of couples with higher levels of initial distress, greater change would be possible. Moreover, it might be helpful to have a participant rating scale with fewer ceiling effects. For example, program ratings could have additional Likert scale options to endorse positive change, with items at the extreme positive end of the scale representing stronger impacts (e.g., extremely helpful).

Although the primary goal of the current study was to evaluate prediction of outcomes one year later, the absolute level of participant ratings of the program does warrant additional comment. For example, the question “How helpful did you find spending time with your spouse?” did not predict any outcomes, but was endorsed an average of 6.58 on a 7 point scale. This converges with consistent anecdotal accounts of the almost universal appreciation of the “retreat” aspects of some relationship education programs which allow couples time to connect. Couples deeply value some aspects of training so uniformly that we may not be able to ever use them in statistical inference tests, but rather as very important descriptive information about what is valued by participants. Evaluating the other ratings, we see averages higher than six on items such as learning a lot, overall satisfaction and helpfulness, willing to recommend the program to a friend, intentions to invest more time and work more as a team, helpfulness of the weekend retreat, and helpfulness of learning principles of healthy marriage. Thus, couples rate multiple aspects of the program very highly. These ratings suggest that relationship education as delivered by Army chaplains to Army couples is experienced as generally positive by the participants.

Taken together, the findings of the current study suggest that relatively simple ratings by the participants taken post relationship education may modestly predict future outcomes. We found that the ratings that did predict marital quality one year later were more about what participants felt they had gained than what they thought of how well the intervention was conducted, although this discussion has raised important restriction of range issues about both the predictor and outcome variables. It is hoped that this information is useful to providers. For example, providers might collect participant ratings and use them to evaluate how to be more effective and perhaps to provide increased individualized follow up and

support for clients that do not endorse improved confidence and intention. Moreover, providers may find it helpful to see which specific aspects of this relationship education program were perceived as most helpful to the participants and ensure that these elements are represented in their programming. Finally, it is hoped that the literature reviewed above regarding Content, Process, and the constructs of TPB help round out the questions providers utilize with their clients. The current study adds to a growing literature about the role of participant ratings in evaluating the impact of interventions.

Acknowledgments

Research reported in this publication was supported by NICHD of the National Institutes of Health under award number RO1HD048780. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

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Descriptive Statistics and Prediction of Marital Outcomes at 1 Year after the Intervention from Post Intervention Program Evaluation Items

Table 1

Program Overall Items		Marital Satisfaction		Communication Skills		M	SD
		b		b			
Overall learning	As a result of attending SB, I learned a lot.	0.04		0.11 *		6.09	1.10
Overall satisfaction	Overall, I am satisfied with my experiences in the SB program.	0.04		0.10		6.27	1.08
Overall helpfulness	Overall, I found the SB program helpful for my relationship.	0.09		0.13 *		6.21	1.11
Willing to recommend	I would recommend SB to a friend.	0.02		0.11		6.46	0.98
Leader Effectiveness Items							
Leader Quality	How would you rate the quality and effectiveness of your SB leader?	-0.06		0.04		4.15 (5 pt scale)	0.97
Leader confidence	As a result of attending SB, I was confident in the Chaplain's ability to help us.	0.00		0.05		5.84	1.28
Confidence and Intention Items							
Communication confidence	As a result of attending SB, I have confidence that my partner and I can talk about things constructively.	0.22 **		0.20 **		5.95	1.04
Investment intent	As a result of attending SB, I will invest more time in our relationship.	0.15 *		0.17 **		6.20	0.94
Teamwork intent	As a result of attending SB, I think my partner and I will work more as a team.	0.19 *		0.11 *		6.08	1.03
Helpfulness of Specific Program Attributes Items							
Communication Help	How helpful did you find learning and practicing the communication skills?	0.06		0.18 ***		5.84	1.29
Networking Help	How helpful did you find meeting other couples?	0.01		0.05		5.20	1.65
Get away help	How helpful did you find getting away for the weekend?	0.08		0.02		6.30	1.16
Time with spouse help	How helpful did you find spending time with your spouse?	0.16		0.10		6.58	0.85
Principles help	How helpful did you find learning about the principles of a healthy marriage (for example: commitment, sacrifice, forgiveness)	0.04		0.06		6.14	1.20
Impact on Army Life Items							
Army family connection	As a result of attending SB, I feel more connected with other Army families.	0.02		0.07		4.63	1.42
Army similar outlook	As a result of attending SB, my partner and I have a more similar outlook about life in the Army.	0.10 +		0.09 *		4.63	1.35
Deployment confidence	As a result of attending SB, I have greater confidence that our marriage will stay strong through a deployment.	0.12 +		0.05		5.72	1.27
Transition confidence	As a result of attending SB, I have greater confidence that we will have a smoother transition as a couple when my spouse returns from deployment.	0.10		0.06		5.57	1.25

		Marital Satisfaction	Communication Skills		
Program Overall Items		<i>b</i>	<i>b</i>	<i>M</i>	<i>SD</i>
<i>M/SD</i> Pre-test		5.62/1.27	4.06/1.18		
<i>M/SD</i> 1 year follow-up		5.78/1.38	4.35/1.17		

* *Note.* SB = Strong Bonds. Regression values are controlling for the pre-test scores on the outcomes. All program evaluation items and marital quality variables on scale from 1 to 7 except for Leader Quality, which is on scale from 1 to 5.

⁺ *p* < .09;
* *p* < .05;
** *p* < .01;
*** *p* < .001.