Marital virtues and their relationship to individual functioning, communication, and relationship adjustment

Amanda Veldorale-Brogana*, Kay Bradfordb and Ann Vailc

aDepartment of Family and Child Sciences at Florida State University, 600 W College Avenue, Tallahassee, FL, 32306, USA; bDepartment of Family, Consumer, and Human Development, Utah State University, 2705 Old Main Hill, Logan, UT 84322-2705, USA; cSchool of Human Environmental Sciences, University of Kentucky, Lexington, KY 40506, USA

(Received 26 April 2010; final version received 27 May 2010)

Extant research has documented both individual well-being and couple communication as important predictors of marital adjustment. In the recent years, researchers have looked beyond problem-based predictors, shifting the focus from pathology and communication to include positive actions and ways of being. This study used Fowers’ [(2005) Virtue and psychology: Pursuing excellence in ordinary practices. Washington, DC: APA Press] framework of virtue ethics to test additional potentially important linkages. This framework posits that characteristics, such as compassion and generosity, which are foundational to relationship adjustment. This study examined the direct and indirect links among individual functioning, marital virtues, communication, and marital adjustment. Data were collected from a sample of 422 married and cohabitating individuals using a self-report survey. Individual well-being significantly and consistently predicted virtues, communication, and relationship functioning. Marital virtues and communication were found to mediate the relationship between individual well-being and relationship adjustment. In addition, communication was found to mediate the relationship between marital virtues and relationship adjustment. Findings provide support for the notion that character strengths – enacted as marital virtues – influence communication and relationship adjustment.

Keywords: marital virtues; other-centeredness; generosity; individual adjustment; communication; relationship adjustment

Introduction

Over the past several decades, a considerable body of research has linked relationship adjustment with individual functioning (e.g., Halford, Bouna, Kelly, & Young, 1999; Whisman, Uebelacker, & Weinstock, 2004) and communication (e.g., Burleson & Denton, 1997; Caughlin, 2002). Within the past decade, some scholars have suggested that relationship adjustment may be also linked to marital virtues, such as other-centeredness, and that this linkage may underpin extant findings and help illustrate processes related to these linkages (Carroll, Badger, & Yang, 2006; Fowers, 1998, 2000; Hawkins, Fowers, Carroll & Yang, 2007). Theorizing about the processes by which spouses co-create healthy relationships, Fowers (2001) described the need to move beyond a merely technical concept of a functional marriage, and argued that the successful use of communication skills may be largely dependent upon virtues; that is, personal qualities or character strengths.

As an empirical examination of these theoretical ideas, the purpose of this study was to (1) test whether marital virtues, based largely on Fowers’ construct, predict relationship adjustment directly, and if so, to (2) test the potential indirect pathways between individual adjustment, couple communication, and marital virtues (e.g. whether communication mediates the linkage between marital virtues and relationship adjustment). A study of marital virtues as predictors of relationship adjustment is important for several reasons. First, an examination of interrelationships between individual functioning, communication and marital virtues, and their linkages to relationship adjustment, may give process-related clues to help explain other extant findings. Second, a study on marital virtues may provide a broadened knowledge of relationship adjustment and the factors that contribute to having positive relationship adjustment. This can help professionals in the field create more effective interventions for couples experiencing marital distress, and more effective marriage and relationship education programs. Third, researchers have found effective communication to be an important predictor of relationship adjustment. A study of marital virtues may help explain not just how couples need to communicate, but perhaps more importantly, such a study may help identify important constructs between partners that underpin positive interactions. Relevant findings might be incorporated into couples’

*Corresponding author. Email: amv08c@fsu.edu

ISSN 1743–9760 print ISSN 1743–9779 online
© 2010 Taylor & Francis
DOI: 10.1080/17439760.2010.498617
http://www.informaworld.com
interventions to help couples communicate well not just about their needs or concerns, but to also help individuals focus more holistically on their process as individual selves and as partners. Virtues are typically enacted in relationships, and the study of such processes in what is for many their closest interpersonal relationship may provide meaningful, contextually sensitive clues about the contributions of this aspect of interpersonal well-being.

**Marital virtues**

Marital scholarship as a whole is beginning to move away from relatively simple foci on dissatisfaction and conflict toward more complex facets of relational health (Fincham, Stanley, & Beach, 2007). Germane to this study is the idea that a focus on healthy processes brings to the fore (1) new variables and potentially important processes, and (2) considerations of personal meaning and motivations for partners. Applied to the couple context, the concept of marital virtues is also related to recent work in positive psychology, which seeks to shift the focus from pathology and reparation to the prosaic, practical, and action-based enactment of the meaningful life, which consists of using personal strengths in the pursuit of something larger than oneself. It is the last of these paths that Fowers’ (2000) framework seeks to address. Fowers (2000) described working with couples on communication skills and found that although they could use the skills in session, the couples struggled in using them at home. He posited that the communication skills being taught depended on more than just understanding the skills; it required a degree of personal strength and an ability to contain personal reactions. Fowers suggested that simply knowing how to do these things (i.e., active listening, using ‘I’ statements) is often not enough, and that in order to effectively apply these skills, couples need to draw on certain personal strengths that spur the pursuit of good in the relationship. For example, active listening involves a gift of attention and interest to a partner, but being able to make gestures of encouragement is only helpful if they are backed up by a degree of genuineness in giving care through attentiveness.

Fowers (2001) tied this closely with Aristotle’s definition of virtue and suggested that actively listening, and especially validating a partner’s point of view (particularly if it is unflattering to oneself) requires a personal strength of generosity that is employed for the sake of a purpose larger than oneself: a ‘better marriage’ (p. 334). Empirically, then, one might expect the enactment of positive motives (i.e., virtues) to predict lower levels of negative communication, and thus communication might mediate the link between virtues and relationship satisfaction. In this study, virtues are operationalized as other-centeredness and generosity within the relationship. Although these variables do not entirely encompass the complex notion of relational virtue, they touch on the key facets, such as fairness, understanding, and allocentrism (other-centeredness) and on forgiveness, acceptance, and appreciation (generosity). As these variables represent aspects of knowledge about and enactment of excellence in relationships, they are likely to influence both what is communicated and how it is done. For example, other-centeredness and generosity might lead a person to be less likely to communicate negativity, and more likely to understand and to accept a message. Likewise, these processes may have impact on relationship quality. It should be noted that although virtue is conceptualized as a confluence of motivation, knowledge, and action, a modern analysis of how these components work together necessitates the separation of exogenous and endogenous variables. It is consistent with Aristotle’s views that other-centeredness and generosity might lead to a decrease of negative communication, and that communication might mediate virtue’s impact on relational well-being.
Although there is little research to date specifically related to marital virtues, family theories such as symbolic interaction and Bowen family therapy provide promising foundations for these ideas. Symbolic interactionism focuses on interpretation, and makes the basic assumption that ‘human behavior must be understood by the meanings of the actor’ (White & Klein, 2008, p. 98). This suggests that it matters not just how people communicate with one another, but also important are the meanings assigned to the words and actions people use to communicate. Interpreting one’s partner’s words or actions in a positive light or making a positive attribution of his/her motives (as a component of virtue) may involve a certain amount of generosity. Hawkins, Carrere, and Gottman (2002) found that, for wives, positive sentiment override or what the authors termed ‘marital bonds’ influenced their perceptions of their husbands’ behavior. These marital bonds may be underpinned by the virtues of generosity and other-centeredness. The assignment of meaning is, at least to some extent, a product of memory and will; this is especially the case in light of findings that show that brain synapses are modified by experience (Antonov, Antonova, Kandel, & Hawkins, 2003). Will, and perhaps good will – beyond social influence and biological reciprocity – highlight both the importance of communication in the equation, in terms of sharing with one’s partner the meaning assigned to a particular context or situation, and marital virtues, at minimum in terms of the process of creating what meanings are assigned (White & Klein, 2008).

An applicable concept from Bowen family therapy that provides a degree of guidance is that of differentiation. Differentiation refers to a person’s ability to process through situations logically and put on hold the instinctive ‘fight or flight’ reaction to anxiety (Friedman, 1991). From the standpoint of the marital virtues framework, the act of putting one’s anxiety in check to allow time for processing, communicating, and perhaps changing initial attributions about one’s partner’s actions is a choice to consider the other. It is itself an act of generosity and of more carefully considering self in relation to other (other-centeredness). Thus, differentiation in responding to one’s partner may constitute an aspect of marital virtues. These theories describe primarily internal, personal processes that become manifest in relational interactions. Because of this, we considered it important to include individual functioning in the model. It is also an important variable in that the Aristotelian view of virtue is, in part, constituted of a person’s well-functioning on an individual level (Broadie, 1991). Its inclusion also allowed us to better isolate the potential effect of marital virtues separate from individual functioning.

**Individual functioning**

Individual functioning has been relatively well-researched in its connection to relationship adjustment. For example, Halford et al. (1999) examined depression, anxiety, alcohol abuse, and functional psychoses, and found a clear link between these indicators of individual functioning and marital adjustment. Similarly, Jacob and Leonard (1992) found that individual distress in men, represented by depression, led to a decrease in constructive and supportive responses to their wives, and relatively higher levels of couple distress. In another study, higher levels of depression and anxiety were positively correlated with lower levels of relationship adjustment (Whisman et al., 2004). Fincham and Bradbury (1993) found that those who scored low on marital adjustment were relatively more likely to attribute the causes of relationship problems to their partner and that those causes were global and stable. The opposite was true for those who scored high on marital adjustment; they were more likely to view relationship problems as situational and changeable. The relational (vs. individual) nature of this attribution may support the idea of the importance of examining the role of the virtue of generosity, which encompasses ideas of forgiveness, acceptance, and appreciation. This virtue may underpin a person’s ability to make beneficial attributions as to the cause of relationship problems. Those who are generous in their views of problems may be more likely to make attributions that are beneficial to their relationships.

These studies point to important linkages, but it remains unclear as to the various ways in which these individual and dyadic variables operate together. There is a need to better understand how individual functioning and couple processes work together reciprocally (Carroll et al., 2006). This study attempts to move in this direction by examining individual processes – both intrapsychically and interpersonally – as related to couple interactions.

**Negative communication**

Like the link between individual functioning and marital adjustment, the link between communication and marital adjustment is also relatively well-established. In a study of 150 couples, Snyder (1979) used the Marital Satisfaction Inventory and found that among the nine relational predictors tested, communication was the best predictor of relationship adjustment. In terms of negative patterns of communication, one study found that conflictual ‘demand-withdrawal’ patterns of communication predicted negative emotions and tactics in marital interaction and less conflict resolution (Papp, Kouros, & Cummings, 2009).
The same study found that these patterns were more likely to happen when the couple discussed the marital relationship. Conversely, using the Conflict Resolution Style Inventory, Kurdek (1995) found a positive link between good partner resolution style and overall marital adjustment, especially for men. It is notable that in their meta-analysis of the effectiveness of marital and relationship education, Hawkins, Blanchard, Fawcett, and Jenkins (2007) found that communication-related approaches produced moderately larger effects on marital satisfaction and quality as compared to approaches emphasizing relationship expectations and knowledge. Burleson and Denton's (1997) research supported the link between communication and marital adjustment in non-distressed couples. However, they found that among distressed couples, communication skills and relationship adjustment were negatively associated. Moreover, distressed couples were just as skilled in communication as their non-distressed counterparts. This finding underscores the importance of the motives surrounding communication. Burleson and Denton found that distressed couples had more negative intention. This research suggests that when communication skills are coupled with good intentions on behalf of the partners, it enhances the relationship, but when those same communication skills are used with bad intentions, it harms the relationship. These good intentions may be seen as at least one component of the virtues of generosity and other-centeredness. This study seeks to shed light on how these virtues impact communication (measured here as negative communication) and relationship adjustment. We would expect marital virtues to predict lower levels of negative communication.

**Relational adjustment**

The term marital or relationship adjustment is defined here as 'a person’s attitudes toward the partner and the relationship where the unit of analysis is the individual and the object of the analysis is the individual’s subjective impressions of the relationship’ (Sabatelli, 1988, p. 894). It is used in this study to clearly refer to the use of the word ‘adjustment’ as this variable is measured in the Revised Dyadic Adjustment Scale (RDAS) and to account for the presence of cohabitating partners in the study.

Kaslow and Robison (1996) found that couples who rated themselves as satisfied on the Dyadic Adjustment Scale (DAS) had comparatively better problem-solving skills and used more encouragement and collaboration. Although not couched in the language of virtues, the linkage with encouragement and collaboration hints toward being other-centered as a positive predictor of relationship adjustment. In their work on affective reconstruction, Snyder and Schneider (2002) posited that one of the main differences between healthy versus dysfunctional relationships is the degree to which partners are both self-aware and aware of their partner. They suggested that another important factor in relationship health is the ability and readiness to ‘defer one’s own gratification for the sake of another’ (p. 162). This language suggests the importance of other-centeredness and generosity to the overall relational health of a couple. Stevens (2005) used grounded theory to explain the effect of virtues on marital intimacy. In particular, she highlighted the virtue of other-orientation and found that the presence of such a virtue can increase intimacy.

In perhaps the most comprehensive empirical test to date of these concepts, Carroll et al. (2006) examined a model of marital competence, comprised of an intrapersonal as well as interpersonal domain. They found that personal security (i.e. esteem for self) was significantly related to other-centeredness. They also found a strong link between other-centeredness and effective negotiation and a negative relationship between other-centeredness and negative conflict behavior. This empirical work supports Fowers’ (2000, 2005) framework suggesting that marital virtues may provide a basis for more ‘excellent’ and complete ways of communicating that are grounded in well-being and positive motivation, in order to achieve better relationship adjustment. In other words, communication may be a mechanism through which marital virtues are enacted, or one behavioral manifestation of positive motivation and knowledge of the positive. Based on theory and extant empirical work, one would thus expect marital virtues to predict lower levels of negative communication, and for lower levels of negative couple interaction in turn to influence relationship adjustment. Thus, extant work suggests that communication may act – at least in part – as a mediator of the relationship between marital virtues and relationship adjustment.

This study seeks to test these hypotheses by testing individual well-being, couple communication, and marital virtues as predictors of relationship adjustment, testing both direct and indirect pathways. Based on the literature reviewed above, individual well-being was expected to predict both marital virtues and relationship adjustment (a negative relationship was predicted, because lower RDAS scores indicate higher perceived well-being). Individual distress was also expected to negatively predict marital virtues and relationship adjustment. Higher levels of marital virtues were hypothesized to predict lower levels of negative communication, and higher levels of relationship adjustment. Finally, negative communication was hypothesized to predict poorer relationship adjustment. These hypotheses are shown in Figure 1.
Method

Data and participants

The data used in this study were collected through partner organizations of the Bluegrass Healthy Marriage Initiative (BHMI), a community healthy marriage initiative supporting couple relationship education in community organizations. Participation in the initiative and the study was entirely discretionary. The participants comprised 422 individuals in committed relationships who had been married or cohabitating at least 1 year, and who were members of BHMI partner organizations. Some of the data consisted of responses from both partners in a relationship, but there was also a portion of the data that came from individuals whose partners were not respondents. Both partners completed the survey in 88 cases. Demographics are shown in Table 1.

Measures

This study includes measures of (1) individual functioning, (2) negative communication, (3) marital virtues, and (4) relationship adjustment. Each variable was measured using a self-report, Likert-scale questionnaire. Missing data were imputed using expectation maximization (Nordholt, 1998; Sande, 1982).

Individual well-being and distress

Individual functioning was measured with the 10-item Outcome Questionnaire-10 (OQ-10; Lambert et al., 1997). Sample items for well-being included ‘I am a happy person’ and ‘I am satisfied with my life’ (0 = almost always, 4 = never) with higher scores indicating lower levels of individual well-being. These were reverse coded, such that higher scores indicate higher levels of individual well-being. Distress sample items included ‘I feel fearful’ and ‘I feel blue,’ (0 = never, 4 = almost always) with higher scores indicating higher levels of individual distress. A previous study indicated that the items loaded onto two factors, termed psychological well-being and psychological distress (Seelert, Hill, Rigdon, & Schwenzfeier, 1999). Likewise, principle components factor analyses conducted separately for men and women on the current data also yielded two factors: well-being and distress. Factor loadings were 0.81 and above for men and 0.76 and above for women on items relating to well-being and 0.64 and above for men and 0.63 and above for women on items relating to distress with one exception: the coefficient for the item ‘I feel stressed at work/school’ was 0.47 for men 0.49 for women. Cronbach’s alphas for well-being was 0.86 for men and 0.87 for women. Cronbach’s alphas for distress was 0.75 for men and 0.72 for women.

Communication

This study examines couple communication through the lens of negative communication patterns. This variable was measured using the 8-item Danger Signs Scale (Kline et al., 2004). Negative communication patterns include escalation, invalidation, and withdrawal (Kline et al., 2004). These patterns are supported in Gottman’s (1999) research on the ‘Four Horsemen of the Apocalypse.’ Items include ‘I hold back from telling my partner what I really think or feel’ and ‘when we argue, one of us withdraws... leaves the scene.’ Responses were 1 (often), 2 (sometimes), and...
3 (rarely); a higher score indicates less negative interaction. Kline et al. (2004) reported alpha coefficients of 0.74 for women and 0.82 for men. Because this instrument is relatively new, a maximum-likelihood confirmatory factor analysis was performed separately for men and women to test the instrument’s psychometric properties using Amos 7.0. The fit for the measurement model for males was good ($\chi^2 = 5.65$, df = 10, $p > 0.05$, CFI = 1.00, RMSEA = 0.000). The model fit for females was also good ($\chi^2 = 9.22$, df = 10, $p > 0.05$, CFI = 1.00, RMSEA = 0.000). The factor loadings were within the expected range: between 0.52 and 0.67 for men, and between 0.50 and 0.80 for women. Item-total correlations in confirmatory factor analysis are considered to be acceptable when 0.40 or higher is achieved (Stevens, 1996).

**Marital virtues**

For this study, two of the six subscales of the Marital Virtues Profile (MVP) were used to measure relational virtues. The subscales used were the generosity and other-centeredness scales. These subscales include 13 of the scale’s 24 items. Other-centeredness (six items) refers to a person’s ability to be fair and understanding, and to make sacrifices for the relationship. Its items subsume the concepts of fairness, understanding, and sacrifice. Generosity (seven items) refers to ‘the willingness to give of oneself freely to the partner’ (Hawkins, Fowers, et al., 2007) and its items encompasses the attributes of forgiveness, acceptance, and appreciation (Hawkins, Fowers, et al., 2007). The other four scales – admiration, teamwork, shared vision, and loyalty – were not included in the BHMI survey and thus were not available for this study. Although the constructs of other centeredness and generosity do not capture all facets of relational virtues, these subscales proved to be reliable, and captured at least some of the central components of this concept (specifically, fairness, understanding, sacrifice, forgiveness, acceptance, and appreciation). Individuals responded to items about their partner, including ‘makes personal sacrifices for the good of the relationship’ and ‘is forgiving of my mistakes,’ rated from 1 (almost never) to 6 (almost always). All items were summed to create a single score. The higher the score, the greater the perception of marital virtues on behalf of the partner. In the original study, Cronbach’s alpha for other-centeredness was 0.84 for wives and 0.79 for husbands. For generosity, Cronbach’s alpha was 0.81 for wives and 0.82 for husbands (Hawkins, Fowers, et al., 2007). Because this instrument is also relatively new, a maximum-likelihood confirmatory factor analysis was performed separately for men and women to test the instrument’s psychometric properties. The fit for the measurement model for males was good ($\chi^2 = 30.90$, df = 28, $p > 0.05$, CFI = 0.99, RMSEA = 0.023). The model fit for females was also good ($\chi^2 = 32.57$, df = 32, $p > 0.05$, CFI = 1.00, RMSEA = 0.001). The factor loadings were within the expected range. For generosity, the item-total correlations were 0.72 and above for men (with most loading above 0.80), and 0.80 and higher for women. For other-centeredness, items loaded at 0.60 and higher for men and 0.53 and higher for women, with most loading at 0.80 or higher for men and 0.77 and higher for women (these data are available from the first author). One exception was the item, ‘my partner struggles to recognize the things I do for him/her,’ which loaded at 0.40 for men and 0.35 for women. Because this item failed to load as expected for both men and women, it was dropped from the analyses.

**Relationship adjustment**

The RDAS was used to measure relationship adjustment (Busby, Christensen, Crane, & Larson, 1995). All three subscales were used: (1) cohesion, (2) consensus, and (3) satisfaction. Participants responded to 14 items including agreement on ‘demonstrations of affection’ ‘correct or proper behavior’ (consensus); how often ‘do you ever regret that you are together’ (satisfaction); and the frequency with which participants ‘...work together on a project’ or ‘calmly discuss something’ (cohesion). In clinical use, the items are summed. The highest possible score is 69, and a score lower than 48 suggests relational distress. Cronbach’s alpha for this study was 0.87 for men and 0.90 for women.

**Results**

**Bivariate correlations**

Bivariate correlations were computed between the predictor variables (marital virtues, communication, and individual functioning), the outcome variable (relationship adjustment), and the control variables. Bivariate correlations were run separately for men and women to achieve data independence because some respondents were in couple relationships and thus their responses were possibly correlated. These results are given in Table 2 along with means and standard deviations (SDs). Bivariate correlations between predictor variables and outcome variable were statistically significant ($p < 0.05$) and in the hypothesized directions. Marital status and race/ethnicity were not significantly correlated with any of the variables of interest. Age was significantly correlated with relationship adjustment, and sex was significantly positively correlated with individual distress. In order to address the high correlation between negative communication and relationship adjustment (−0.77 for women and −0.71 for men) and the risk that overlapping communication items in relationship adjustment (RDAS)
Table 2. Bivariate correlations, means, and SDs.

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Individual well-being</td>
<td>1</td>
<td>-0.54**</td>
<td>0.53**</td>
<td>0.59**</td>
<td>-0.49**</td>
<td>0.00</td>
<td>-0.01</td>
<td>-0.08</td>
<td>0.16*</td>
<td>0.09</td>
<td>0.20**</td>
<td>-0.35**</td>
</tr>
<tr>
<td>2. Individual distress</td>
<td>-0.48**</td>
<td>1</td>
<td>-0.29**</td>
<td>-0.31**</td>
<td>0.30**</td>
<td>0.09</td>
<td>-0.05</td>
<td>-0.05</td>
<td>0.00</td>
<td>-0.01</td>
<td>-0.07</td>
<td>0.15*</td>
</tr>
<tr>
<td>3. Marital virtues</td>
<td>0.61**</td>
<td>-0.29**</td>
<td>1</td>
<td>0.78**</td>
<td>-0.75**</td>
<td>-0.09</td>
<td>0.17*</td>
<td>-0.05</td>
<td>0.17*</td>
<td>0.08</td>
<td>0.06</td>
<td>-0.22**</td>
</tr>
<tr>
<td>4. Relationship adjustment</td>
<td>0.61**</td>
<td>-0.40**</td>
<td>0.73**</td>
<td>1</td>
<td>-0.76**</td>
<td>0.02</td>
<td>0.03</td>
<td>-0.13</td>
<td>0.17*</td>
<td>0.10</td>
<td>0.12</td>
<td>-0.23**</td>
</tr>
<tr>
<td>5. Negative communication</td>
<td>-0.60**</td>
<td>0.35**</td>
<td>-0.71**</td>
<td>-0.74**</td>
<td>1</td>
<td>-0.023**</td>
<td>-0.01</td>
<td>-0.17*</td>
<td>0.16*</td>
<td>-0.08</td>
<td>0.21**</td>
<td>-0.25**</td>
</tr>
<tr>
<td>6. Age</td>
<td>-0.01</td>
<td>0.07</td>
<td>0.11</td>
<td>0.18*</td>
<td>0.09</td>
<td>1</td>
<td>-0.34**</td>
<td>0.08</td>
<td>0.10</td>
<td>0.16*</td>
<td>0.33**</td>
<td>-0.20**</td>
</tr>
<tr>
<td>7. Marital status</td>
<td>-0.01</td>
<td>-0.15*</td>
<td>-0.12</td>
<td>-0.14</td>
<td>-0.16*</td>
<td>-0.45</td>
<td>1</td>
<td>0.18**</td>
<td>-0.27**</td>
<td>-0.19**</td>
<td>-0.46**</td>
<td>0.18**</td>
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<tr>
<td>8. Race (dichotomous)</td>
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<td>-0.01</td>
<td>0.28</td>
<td>0.09</td>
<td>0.00</td>
<td>-0.01</td>
<td>0.15*</td>
<td>1</td>
<td>-0.25**</td>
<td>-0.06</td>
<td>-0.27**</td>
<td>0.09</td>
</tr>
<tr>
<td>9. Education</td>
<td>0.10</td>
<td>0.09</td>
<td>0.15*</td>
<td>0.10</td>
<td>0.12</td>
<td>0.11</td>
<td>-0.05</td>
<td>-0.21**</td>
<td>1</td>
<td>0.28**</td>
<td>0.40**</td>
<td>-0.25**</td>
</tr>
<tr>
<td>10. Perceived religiosity</td>
<td>0.18*</td>
<td>0.09</td>
<td>0.21**</td>
<td>0.29**</td>
<td>0.14</td>
<td>0.83</td>
<td>-0.17*</td>
<td>-0.02</td>
<td>0.24**</td>
<td>1</td>
<td>0.12</td>
<td>-0.20**</td>
</tr>
<tr>
<td>11. Income</td>
<td>-0.28</td>
<td>0.34</td>
<td>0.51</td>
<td>0.08</td>
<td>0.51</td>
<td>0.19**</td>
<td>-0.13</td>
<td>0.10</td>
<td>0.27**</td>
<td>0.12</td>
<td>1</td>
<td>-0.51**</td>
</tr>
<tr>
<td>12. Perceived financial stress</td>
<td>-0.11</td>
<td>0.11</td>
<td>-0.14*</td>
<td>-0.23**</td>
<td>-0.12</td>
<td>-0.20**</td>
<td>0.07</td>
<td>0.02</td>
<td>-0.25**</td>
<td>-0.09</td>
<td>-0.47**</td>
<td>1</td>
</tr>
<tr>
<td>Mean (men)</td>
<td>16.2</td>
<td>5.6</td>
<td>57.3</td>
<td>50</td>
<td>12.3</td>
<td>44.8</td>
<td>0.06</td>
<td>1.1</td>
<td>5.8</td>
<td>3.2</td>
<td>4.7</td>
<td>2.7</td>
</tr>
<tr>
<td>SD (men)</td>
<td>3.3</td>
<td>3.0</td>
<td>11.5</td>
<td>8.2</td>
<td>3.5</td>
<td>13.0</td>
<td>0.24</td>
<td>0.34</td>
<td>1.0</td>
<td>0.69</td>
<td>1.4</td>
<td>0.73</td>
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<tr>
<td>Mean (women)</td>
<td>16.0</td>
<td>6.9</td>
<td>57.2</td>
<td>48.8</td>
<td>12.9</td>
<td>41.6</td>
<td>0.09</td>
<td>1.2</td>
<td>5.7</td>
<td>3.3</td>
<td>4.2</td>
<td>2.8</td>
</tr>
<tr>
<td>SD (women)</td>
<td>3.6</td>
<td>2.9</td>
<td>12.4</td>
<td>9.6</td>
<td>4.0</td>
<td>13.0</td>
<td>0.28</td>
<td>0.41</td>
<td>1.1</td>
<td>0.67</td>
<td>1.7</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Notes: Men's coefficients are displayed on bottom left and women's coefficients on top right. Marital status: 0 = married, 1 = single; Race: 1 = Caucasian, 2 = non-Caucasian; Education: 1 = no formal schooling, 7 = graduate degree; Perceived religiosity: 1 = not religious at all, 4 = very religious; Income: 1 = under $10,000, 7 = $150,000 or more; and perceived financial stress: 1 = thriving, 5 = in crisis.

* and ** indicate $p < 0.05$ and $p < 0.01$, respectively.
might artificially inflate the relationship, bivariate correlations were run a second time after removing the items related to communication 'how often do you have a stimulating exchange of ideas?' and 'how often do you calmly discuss something?' from the RDAS. The change in correlation was negligible: the removal of the two items decreased the correlation slightly for women (−0.76) and increased the correlation slightly for men and (−0.74). Both remained significantly negatively correlated (p < 0.01). Cronbach’s alpha for the revised scale was 0.85 for men and 0.88 for women. However, the revised scale was used for the multivariate analyses to minimize the overlap in these two variables.

**Multivariate analyses**

Linear mixed modeling was used for the multivariate analyses. This method helps account for covariation in responses in shared context (Kreft & de Leeuw, 1998). Because 42% of the respondents (n = 176) were couples individuals, these observations were presumed to be dependent based on shared relational characteristics. Using this method allowed the calculation of between-subject correlation of the error terms of partners’ scores, thereby reducing unexplained variation and avoiding inflated alpha levels (and, subsequently, type I error).

Three models were tested. Contextual variables were included in each step of all models and included age, sex, marital status, ethnicity, education, religiosity, income, and perceived financial status. Model 1 consisted of a test of the direct pathways from individual well-being, individual distress, negative communication, and marital virtues to relationship adjustment. This model was tested in six steps. Variables were added or removed in each step in order to clarify how each impacted the model fit, thus allowing us to examine changes in $\chi^2$ indices and determine the extent to which the hypothesized model was sound or unsound.

**Model 1**

Step 1 included the pathways from individual well-being and individual distress to relationship adjustment. Step 2 added negative communication to this model. Step 3 was a test of the pathways from individual well-being, individual distress, and marital virtues to relationship adjustment. Step 4 was a test of the pathway from marital virtues to relationship adjustment. Step 5 was a test of the pathways from negative communication and marital virtues to relationship adjustment. Step 6 was a test of the full model and included the pathways from individual well-being, individual distress, negative communication, and marital virtues to relationship adjustment.

Table 3 displays the results from Model 1. All coefficients are unstandardized, such that a unit change in the independent variable indicates a unit change in the dependent variable, rather than change in SD unit. Unstandardized coefficients are used due to the hierarchical nature of the data (Nezlek, 2001). In Step 1, individual well-being was significantly related to relationship adjustment (β = 1.13, p < 0.001) as was individual distress (β = −0.26, p < 0.05). Negative communication was added in Step 2, and was found to positively predict relational adjustment (β = −1.18, p < 0.01). The addition of negative communication into the direct model reduced the variance components of both individual well-being (β = 1.13 to β = −0.54, p < 0.01) and individual distress (β = −0.26 to β = −0.14, p > 0.05), and the difference in model fit was significant with Δ$\chi^2(1) = 210.1$ (p = 0.001). With the addition of negative communication, individual distress was no longer a significant predictor, suggesting that negative communication mediates the relationship between individual distress and relationship adjustment. In Step 3, marital virtues was added to the direct model (i.e. Step 1) and was found to positively predict relationship adjustment (β = 0.36, p < 0.01). The addition of marital virtues to the direct model reduced the variance component of individual well-being (β = 1.13 to β = 0.46, p < 0.01). The model difference was statistically significant Δ$\chi^2(1) = 188.0$ (p < 0.001). In Step 4, the effect of marital virtues (β = 0.46, p < 0.01) on relationship adjustment was separately tested.

Negative communication was excluded in Steps 3 and 4 in order to test the independent effects of marital virtues on relationship adjustment and the additive
effect of marital adjustment versus negative communication on the link between individual functioning and relationship adjustment. In Step 5, negative communication ($\beta = -0.89$, $p < 0.001$) was added to Step 4 in order to test the effect of negative communication on the pathway between marital virtues and relationship adjustment. The addition of negative communication into this link reduced the variance component of marital virtues ($\beta = 0.46$ to $\beta = 0.25$, $p < 0.001$). The model difference was statistically significant with $\Delta \chi^2(1) = 94.5$ ($p = 0.001$). In Step 6, the effects of individual well-being ($\beta = -0.34$, $p < 0.001$), individual distress ($\beta = -0.18$, $p < 0.05$), negative communication ($\beta = -0.77$, $p < 0.001$), and marital virtues ($\beta = 0.21$, $p < 0.001$) were tested simultaneously. The difference between the model fit of the direct model (Step 1) and the final model (Step 6) was statistically significant with $\Delta \chi^2(1) = 262.2$ ($p = 0.001$), suggesting that the full model adds predictive power.

Model 2
Model 2 was analyzed to test for potential mediating effects of negative communication. In Model 2, analyzed in two steps, negative communication was the dependent variable, with individual well-being and distress and marital virtues as independent variables. Step 1 tested the effects of individual well-being and individual distress on negative communication, and Step 2 included marital virtues and tested the pathway from marital virtues to negative communication. The results are given in Table 4. In Step 1, individual well-being predicted negative communication ($\beta = -0.51$, $p < 0.001$), but individual distress ($\beta = 0.11$, $p = 0.12$) did not. The marital virtues variable was added to the model in Step 2. It was found to predict negative communication ($\beta = -0.20$, $p < 0.001$), and its addition significantly reduced the variance component of individual well-being ($\beta = -0.51$ to $\beta = -0.14$, $p < 0.01$), thus mediating the relationship. Model differences were statistically significant with $\Delta \chi^2(1) = 191.8$ ($p = 0.001$).

Table 4. Parameter estimates of fixed effects for model 2 and model 3.

<table>
<thead>
<tr>
<th>Model 2: Negative communication</th>
<th>Model 3: Marital virtues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Step 2</td>
</tr>
<tr>
<td>Marital virtues</td>
<td>(-0.20***)</td>
</tr>
<tr>
<td>Individual well-being</td>
<td>(-0.51***)</td>
</tr>
<tr>
<td>Individual distress</td>
<td>0.11*</td>
</tr>
<tr>
<td>(\chi^2)</td>
<td>Correlation coefficient</td>
</tr>
</tbody>
</table>

Notes: \(^{a}\)Unstandardized estimates.

** and *** indicate $p < 0.05$, $p < 0.01$ and $p < 0.001$, respectively.

Figure 2. Combined model: Summary of pathways.

Notes: \(^{a}\)Unstandardized estimates. *, ** and *** indicate $p < 0.05$, $p < 0.01$ and $p < 0.001$, respectively.
relationship between marital virtues and relationship adjustment. The final indirect pathway is from individual distress to relationship adjustment through negative communication. As a further test of mediation, Sobel tests were conducted for each possible indirect pathway (Table 5). These tests yielded significant results, indicating that all indirect effects are significant.

**Discussion**

The purpose of this study was to examine a potential missing link in the relationship between individual well-being, negative communication, and relationship adjustment. All hypothesized pathways were significant, with the exception of individual distress, which did not significantly predict marital virtues. It may be that individual distress acts indirectly, facilitating an increase in negative communication, or directly on relationship adjustment by facilitating less relational well-being, rather than acting on relationship adjustment through other processes such as decrease in marital virtues. Individual well-being predicted relationship adjustment, and both marital virtues and negative communication were mediators between individual functioning and relationship adjustment. The direct linkages remained: negative communication and individual distress were found to directly predict relationship adjustment. Likewise, marital virtues directly predicted relationship adjustment and negative communication. The virtues of other-centeredness and generosity thus may be viewed as underpinning the link between negative communication and relationship adjustment.

**Direct effects**

As expected, higher levels of individual well-being predicted higher levels of relationship functioning. This finding is consonant with the concept of reciprocal influence in systems theory (i.e. individual well-being may induce benefit to the couple relationship and/or well-being in both may be reciprocally reinforcing). This direct effect is consistent with previous literature on relationship adjustment (Jacob & Leonard, 1992; Kurdek, 1995; Snyder, 1979; Whisman et al., 2004). Surprisingly, individual distress was not a predictor of marital virtues. Additionally, individual distress was less predictive of relationship adjustment than was individual well-being. Taken together, these data suggest that it is not individual distress but rather individual well-being that is most important to the enactment of the positive relationship processes measured herein. This finding is consistent with a view of individual well-being as the enactment of intrapersonal excellence, but perhaps more importantly these findings support the view that virtue also consists of the enactment of excellence in relationships (Sherman, 1989). Individual distress did predict slightly higher levels of negative communication, but had no significant linkage to marital virtues. Conversely, individual well-being strongly predicted marital virtues. These findings lend support to the notion that the presence of well-being within a person individually has a greater impact on how they relate to others than the presence of distress within that person (Seligman & Csikszentmihalyi, 2000).

In the relational realm, Fowers (2000) suggested that effective communication is not content neutral, and that its success depends to a great extent upon the exercise of marital virtues. The direct linkage observed in this sample between marital virtues (generosity and other-centeredness) and negative communication supports a view of relational virtues and excellence in communication – or here at least, relatively less negative communication – as the enactment of a larger Aristotelian notion of virtue. The link between other-centeredness and generosity and lower levels of negative communication gives more evidence to support a view of virtue as actions that manifest good intention and that foster well-being. As expected, lower levels of negative communication were found to strongly predict high levels of relationship adjustment. Given the relationship found between marital virtues and negative communication, this direct linkage gives some support to Fowers’ (2000) theory that marital virtues provide the basis for what needs to be communicated between couples. It is not enough simply to have positive communication behaviors. Personal attributes (forgiveness, acceptance, appreciation, fairness, and ability to sacrifice for the relationship) encompassed by generosity and other-centeredness did have a significant, albeit modest, connection to communication. Marital virtues also directly predicted relationship adjustment, suggesting that these relational virtues have a positive direct impact beyond how they are expressed in communication interactions.

Another interesting finding was the strong relationship between individual well-being and marital virtue.
virtues. This linkage also supports a holistic view of virtues, and suggests that it is important to cultivate individual well-being (happiness and satisfaction) in order to improve one’s ability to possess and practice relational virtues (consideration of the other partner, etc.). It seems possible that this linkage may be reciprocal, but due to the cross-sectional nature of these data, it is not possible to discern whether this relationship in general tends to be unidirectional or reciprocal. Individual well-being was also found to predict less negative communication, suggesting that individual well-being may be an important precursor in a person’s ability to communicate less negatively. It also points to a positive spillover effect from individual to relational process, such as the concept of differentiation discussed earlier. Although the current measures of well-being and marital virtues do not measure the broad scope of differentiation, these findings shed light on this theoretical connection. Here, individual well-being – happiness and satisfaction – was linked to less negative communication and to the relational strengths of marital virtues. This phenomenon echoes the notion of differentiation; that is, a person’s ability to take a healthy approach, and thoughtfully and reflectively put anxiety on hold for the sake of the relationship (Friedman, 1991).

**Indirect effects**

The indirect effects of these analyses constitute several potential pathways of mediation, but three are of note. First, the link between individual well-being and relationship adjustment was mediated by communication. This finding may suggest that the happier someone is, the more likely he or she is to have lower levels of negative communication. The lower the levels of negative communication, the more likely someone is to be satisfied in his or her relationship; in this latter case, the strength of the correlation was relatively greater.

The second mediated relationship is the pathway from individual well-being to relationship adjustment through marital virtues. Higher levels of individual well-being are predictive of better relationship adjustment, but this relationship was mediated by the linkage between individual well-being and marital virtues. Higher levels of well-being strongly predicted the qualities of other-centeredness and generosity. Consonant with past literature, these variables in turn predicted relationship adjustment. It is also notable that the direct linkage between individual well-being and relationship adjustment remained significant as well. With regard to intervention, these pathways point to the importance of facilitating an individual’s well-being, particularly in support of relational virtues.

The third mediated relationship addresses a key component of Fowers’ (2000) framework and helps to synthesize the other indirect effects. Notably, the direct pathway between marital virtues and relationship adjustment was mediated by communication. This finding lends a modest yet significant degree of support to Fowers’ assertion that relational character strengths are needed for the practice of effective communication. Here, higher levels of marital virtues were linked to lower levels of negative communication, and similar to past findings, lower levels of negative communication were linked to higher relationship adjustment. Taken in combination, the direct and indirect pathways support the view of virtue as a single conceptual whole in which motivation, understanding, and action are supported by, and manifested in, intrapersonal and interpersonal well-being.

**Implications**

These findings have implications for couple therapy as well as for marriage and relationship education. Communication issues have played a prominent role in the past theoretical and empirical work on relationship adjustment. This is a warranted strategy in light of the extant linkages between negative communication and relationship adjustment. However, these findings point toward additional facets of intervention, and imply that skill-based or technical approaches, while important, may likely have limitations. Interventions that also give attention to an individual’s well-being would likely have a positive impact on both the enactment of marital virtues as well as on relationship satisfaction. Most importantly, the facilitation of marital virtues – either via education or therapy – may have a positive impact on both communication and both directly and indirectly upon relationship satisfaction. The teaching and facilitation of other-centeredness and generosity might have several benefits, including helping partners increase their awareness of one another. Although simple, this aspect can be important: one study found that such awareness (i.e., accurate perception of specific partner traits) was associated with support and relationship stability (Neff & Karney, 2005). An approach from the perspective of symbolic interaction might be to focus on how positive relational attributions are constructed both intrapersonally as well as interpersonally. Teaching other-centeredness and generosity might also foster more positive sentiment override (e.g., Hawkins et al., 2002) and help partners to be more collaborative and cohesive.

As mentioned previously, the language of differentiation may be useful to clients in understanding their negative reactions to their partners as a ‘fight or flight’ reaction to anxiety, and therapists can help clients
in this way to find reactions that are more generous and other-centered. Regardless of the several potential ways to operationalize them, these results suggest that a shift away from lessening the negatives to increasing the positives may be an important way to help couples improve their relationship adjustment.

Limitations and further research

The generalizability of this study is limited by the nature of the data. The data were all collected from the same mid-sized suburban area, many of the participating partner organizations were churches, and the majority of the sample was relatively well-educated, white, and middle-class, all of whom had expressed at least some degree of interest in marriage education. In addition, the data are cross-sectional and self-reports. Additionally, these participants are people who sought relationship education through the various community organizations with which they affiliate. Thus, they may be relatively high in virtues. If so, the strength of relationships may be underestimated due to attenuation effect. Kindness, consideration, and maturity have been documented as predictors of involvement in marriage education, however so are perceived relationship problems (Duncan, Holman, & Yang, 2007).

These results suggest that further research of the construct of marital virtues may be warranted. While the results clearly support an integrated view of virtue as motivation, knowledge, and action, further testing of specific pathways of influence would provide more clarity regarding the processes that support well-being. In addition, further study should also include conceptual breadth. Only a modest view of marital virtues can be obtained through this study because of the use of only two of the subscales of the MVP (Hawkins, Fowers, et al., 2007). Beyond further basic research, applied research would be helpful to better understand the potential benefits of educational or therapeutic interventions that include marital virtues as well as communication skills. The best ways of doing this, and the potential benefits, are empirical questions and certainly, longitudinal research in this area – both basic and applied – might help provide a clearer picture of how each variable may be related to the others over time. Such research may be important in shaping future educational and therapeutic interventions for couples.

References


