

The Association Between Affective and Problem-Solving Communication and Intimate Partner Violence Among Caucasian and Mexican American Couples: a Dyadic Approach

Julia F. Hammett¹ · Donna M. Castañeda¹ · Emilio C. Ulloa¹

Published online: 11 July 2015
© Springer Science+Business Media New York 2015

Abstract The present study examined individuals' subjective evaluation of their effectiveness with regard to affective communication and problem-solving communication, and their relation to intimate partner violence (IPV) victimization. Data from 100 Caucasian American and Mexican American couples were collected during the first and during the third year of marriage. For affective communication, a significant partner effect emerged, indicating that husbands' higher dissatisfaction with affective communication was related to wives' higher IPV victimization. For problem-solving communication, a significant actor effect emerged, indicating that husbands' higher dissatisfaction with problem-solving communication was related to husbands' higher IPV victimization. While these findings largely generalized to Caucasian Americans, they did not generalize to Mexican Americans.

Keywords Dyadic · Actor-partner interdependence model · Affective communication · Problem-solving communication · Newlyweds · Intimate partner violence

Communication behaviors are among the most extensively studied interactional processes within the marital literature (Cornelius et al. 2010). The strategies that partners employ when communicating their feelings to one another and when solving problems have been tied to a variety of factors, such as marital satisfaction, as well as intimate partner violence (IPV; Feldman, and Ridley 2000). IPV is of major public concern, because prevalence rates of IPV are high – recent estimates

indicate that 16 to 36 % of newlywed husbands and 24 to 44 % of newlywed wives have perpetrated physical aggression against their partners (Panuzio and DiLillo 2010) – and because IPV has been found to be associated with a variety of negative consequences, such as poor physical and mental health (Pico-Alfonse et al. 2006). Thus, researchers have focused on examining communication behaviors that may be associated with the experience of IPV in order to come up with possible prevention and intervention strategies. Although some research has indicated that global communication deficits may not account for differences between violent and non-violent marriages (Babcock et al. 1993), there may be specific areas of communication that do contribute to marital violence. Such areas may include pro-social communication skills (e.g., Waltz et al. 2000), escalating negativity (i.e., conversation patterns that become more and more adverse over time) and rejection of influence (i.e., not accepting a partner's opinions; e.g., Babcock et al. 2011), and demand and withdraw behaviors (e.g., Robertson and Murachver 2006). In addition, the meaning and importance of intra-couple communication may differ for members from various cultures and thus, may impact partners' levels of relationship violence differently. Hence, it is important to examine cultural differences in the association between communication behaviors and IPV. The present study aimed to add to the extant literature by examining how partners' subjective evaluations of their skillfulness with regard to two specific interactional processes, affective communication and problem-solving communication, would be related to their levels of IPV victimization using a dyadic data analysis approach. Furthermore, this relationship is explored within and across two cultural groups, Mexican Americans and Caucasian Americans. Mexican Americans are a demographically important population in the U.S.—they are projected to make up 30 % of the U.S. population by the year 2050 (U.S. Census Bureau, 2012). Thus, insight into how affective and problem-

✉ Julia F. Hammett
juliafhammett@gmail.com

¹ Department of Psychology, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-4611, USA

solving communication are related to IPV victimization among Mexican American couples, and how they may differ in this from Caucasian American couples, may contribute to development of culturally competent services for them.

Numerous studies have shown that partners who experience IPV often exhibit poor communication skills and strategies. For example, Gordis et al. (2005) compared communication and threatening behaviors among 90 couples with no history of IPV, a past history of IPV, and a recent history of IPV. Assessments of communication behaviors and IPV were conducted about 1.5 years apart. Results showed that couples with a recent history of IPV had the poorest communication (as indicated by high hostility, low problem-description, and low warmth) and couples with no history of IPV had the best communication. These findings are supported by research by Robertson and Murachver (2006). The authors examined linguistic features and accommodation behaviors of perpetrators and victims of IPV and found that, as compared with individuals without a history of IPV, both perpetrators and victims of IPV used fewer facilitative and polite language features. In addition, communication skills have been found to be an important moderator in the relationship between maladaptive behaviors and personality traits and partners' risk of experiencing IPV. A longitudinal study of 169 community couples by Hellmuth and McNulty (2008) indicated that the effects of neuroticism on IPV perpetration over the first 4 years of marriage were moderated by observations of problem-solving behavior and objective ratings of chronic stress.

Clearly, communication plays an important role in intimate relationships. However, what communication means for members from various cultures may differ, and thus, the impact of partners' communication behaviors on the amount of aggression they experience within their relationship may vary across different cultural groups. With some exceptions, the association between communication and IPV appears to be present for couples from non-Western, non-White samples. For example, Nagae and Dancy (2009) analyzed Japanese women's perceptions of IPV and found communication skill deficits among violent spouses, characterized as unilateral communication, with husbands initiating and dominating the conversation. Lamichhane et al. (2011) conducted a study assessing the prevalence of violence among young married women in Rural Nepal, in which they examined factors related to women's status, in order to better understand the risk of violence. Inter-spousal communication emerged as one of the significant predictors that was associated with women's lifetime experiences of violence. Finally, Naved and Persson (2005) assessed factors associated with spousal physical violence in Bangladesh using a population-based survey and in-depth interviews. Better spousal communication and husbands' education beyond the tenth grade were found to decrease the risk of violence. In addition to generalizing across different cultures, the association between poor

communication behaviors and violence has been established among younger samples, such as adolescent couples experiencing dating violence (Messinger et al. 2011), as well as among clinical versus school samples (Messinger et al. 2012). As these previous studies show, communication behaviors and IPV appear to be related and this association appears to hold across samples from differing cultural groups.

However, there may be certain additional factors that influence some couples' communication styles and thus, may also have an impact on the association between communication and aggression. Acculturation, defined as the extent to which individuals identify with their traditional values, norms, and behavioral patterns versus the values, norms, and behavioral patterns of the mainstream American culture, may be one such factor that plays a role in immigrant couples' communication and IPV. For example, Flores et al. (2004) found that Mexican American husbands and wives, who were more acculturated to the mainstream American culture, engaged in less avoidance of conflict, were more expressive in their feelings, and wives were more verbally and physically aggressive. The authors speculate that less acculturated Mexican Americans may be less accepting of open expressions of conflict due to their collectivistic cultural origins and thus avoid conflict that may lead to outcomes such as IPV. However, the finding that lower acculturation may lead to lower levels of IPV is contradicted by research by Caetano et al. (2007), who found that lower acculturation among Mexican American husbands and wives was in fact related to higher levels of IPV. Thus, although the direction of the effect of acculturation on the communication-IPV association remains inconclusive, acculturation needs to be taken into account when studying this association among Latino/a couples.

While the studies described above found significant associations between individuals' actual communication behaviors and their levels of aggression, it is critical to also examine individuals' subjective perceptions of their own as well as their partners' communication skills. Some couples may not possess the most effective communication strategies as defined by objective observers. However, as long as both partners perceive these strategies as effective and are satisfied with the ways in which they behave towards one another, their actual ineffectiveness might not lead to negative consequences. However, poor communication strategies may become problematic and may lead to negative outcomes, such as IPV, when partners perceive these strategies as ineffective and feel that they are unable to communicate their feelings to one another or solve their issues. Thus, partners' dissatisfaction with communication behaviors may be more (or equally) important in studying the link between communication and IPV than their actual communication behaviors.

It is important to examine potential differences between husbands and wives in the association between communication and IPV. According to Robertson and Murachver (2006),

women tend to use language to maintain and create relationships with others. Men, on the other hand, tend to use conversations to gain information and to maintain a status of power. Due to their differential use of language and communication, it is possible that communication might impact husbands' and wives' risk of IPV differently. In addition, while most previous research shows that men and women are equally likely to experience IPV (e.g., Archer 2000), the context and consequences of women's aggression differ greatly from those of men's aggression. Male violence has greater power to intimidate and control women. Women are more likely to sustain injuries (Gordis et al. 2005). Previous research indicates that both spouses in aggressive relationships exhibit more negative communication (e.g., Cordova et al. 1993). However, much of the literature on violent relationships suggests that husbands' rather than the wives' behavior has a stronger impact in differentiating violent from non-violent marriages (Babcock et al. 1993). In addition, it is important to acknowledge that husbands' and wives' communication behaviors may not only influence their own risk of experiencing IPV but may also influence their partners' risk. Husbands and wives share something in common and their communication behaviors and their levels of IPV are non-independent. Dyadic designs allow for the investigation of this non-independence and interrelatedness of husbands' and wives' skills and behaviors. By collecting data from both members of the dyad it is possible to examine the effects of individuals' communication behaviors not only on their own IPV victimization (referred to as actor effects) but also on their partners' IPV victimization (referred to as partner effects; Kenny et al. 2006).

The Present Study

The present study aimed to assess actor and partner effects of individuals' subjective evaluation of their partner's effectiveness in two specific communication strategies, namely affective communication and problem-solving communication, in their relation to IPV victimization among a sample of Caucasian-American and Mexican-American newlyweds. For the current purpose, affective communication was defined as individuals' subjective evaluation of the amount of affection expressed by their partner. Problem-solving communication was defined as partners' general effectiveness in resolving differences. The Actor-Partner Interdependence Model (APIM; Kenny et al. 2006) was used to statistically account for non-independence and the effects that a partner has on an individual's outcome. To clarify the temporal nature of communication and its effects on IPV, data were collected at two different time points, namely during the first and during the third year of marriage. Newlyweds were chosen as an appropriate sample because they are in particularly formative period of their partnership. Previous

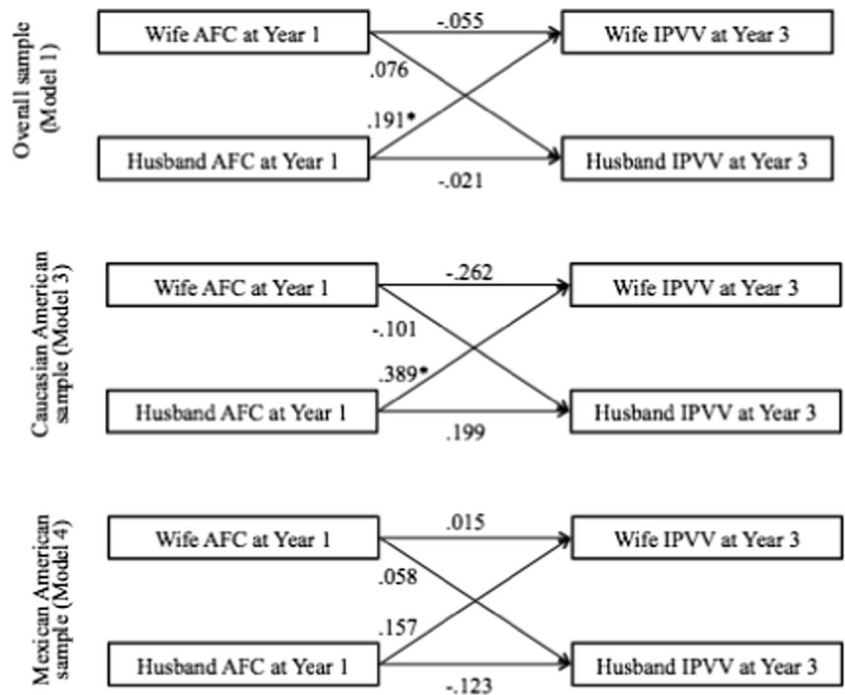
research has shown that partners' behaviors during the first years of marriage may foreshadow long-term marital fate (Huston et al. 2001). Thus, it is important to examine newlyweds' communication skills and their subjective evaluation of and satisfaction with these skills in order to determine whether partners may be at risk for experiencing maladaptive interactional behaviors, such as intimate partner violence, at later times during their marriage. The hypotheses proposed for the current study were based on the APIM and the results from previous research. First, it was predicted that for both husbands and wives, higher levels of dissatisfaction with affective communication at the first year of marriage would predict increased levels of their own IPV victimization (actor effects) and increased levels of their partner's IPV victimization (partner effects) at the third year of marriage (see Fig. 1 for a graphical representation of the proposed model). Second, it was predicted that for both husbands and wives, higher levels of ineffectiveness of problem-solving communication at the first year of marriage would predict increased levels of their own IPV victimization (actor effects) and increased levels of their partner's IPV victimization (partner effects) at the third year of marriage (see Fig. 2 for a graphical representation of the proposed model). Due to the high percentage of Mexican-American couples in the present sample differences between Caucasian-American and Mexican-American couples in the association between the two communication behaviors and IPV victimization were explored.

Method

Participants

To be eligible for the original study, participants had to be 18 years of age or older, within the first 12 months of their first marriage, and both partners were required to identify themselves as of the same ethnicity, either both Caucasian American or both Mexican American. Data from 139 heterosexual couples ($N=278$ individuals) were collected during the first year of marriage. Data from 101 couples and three individuals whose partners did not re-participate at Year 3 ($N=205$ individuals) were collected during the third year of marriage. The main analyses were conducted using data from those couples of which both partners participated at both times of data collection. Data from individuals whose partner did not participate in the study at the third year of marriage were excluded from the main analyses. In addition, 1 of the 101 couples who re-participated at Year 3 was found to never have been married and was thus also excluded from the final sample ($N=200$ individuals). Comparisons of descriptive statistics of the main study variables at Year 1 indicated that those individuals who did not re-participate in the study at Year 3 slightly

Fig. 1 APIM of affective communication and intimate partner violence victimization. Note: * $p < .05$, ** $p < .01$. Standardized regression coefficients are shown. Covariates were included in all analyses. *AFC* Affective Communication, *IPVV* Intimate Partner Violence Victimization



differed from those individuals who did re-participate at Year 3 (see Table 1). Thus, cross-sectional analyses based on the Year 1 data were conducted to compare the two groups.

At the first year of marriage, men ranged in age from 19 to 58 years ($M=28.92, SD=7.97$) and women ranged in age from 19 to 57 years ($M=27.56, SD=8.08$). Thirty-five percent of participants identified as Caucasian American and 65 % of participants identified as Mexican American. Among the

individuals who did not re-participate in the study at Year 3 of marriage, 46.2 % identified as Caucasian American and 53.8 % identified as Mexican American.

Procedure

In the original study, couples were recruited from the community through media advertisements, flyers, and in-person

Fig. 2 APIM of problem-solving communication and intimate partner violence victimization. Note: * $p < .05$, ** $p < .01$. Standardized regression coefficients are shown. Covariates were included in all analyses. *PSC* Problem-Solving Communication, *IPVV* Intimate Partner Violence Victimization

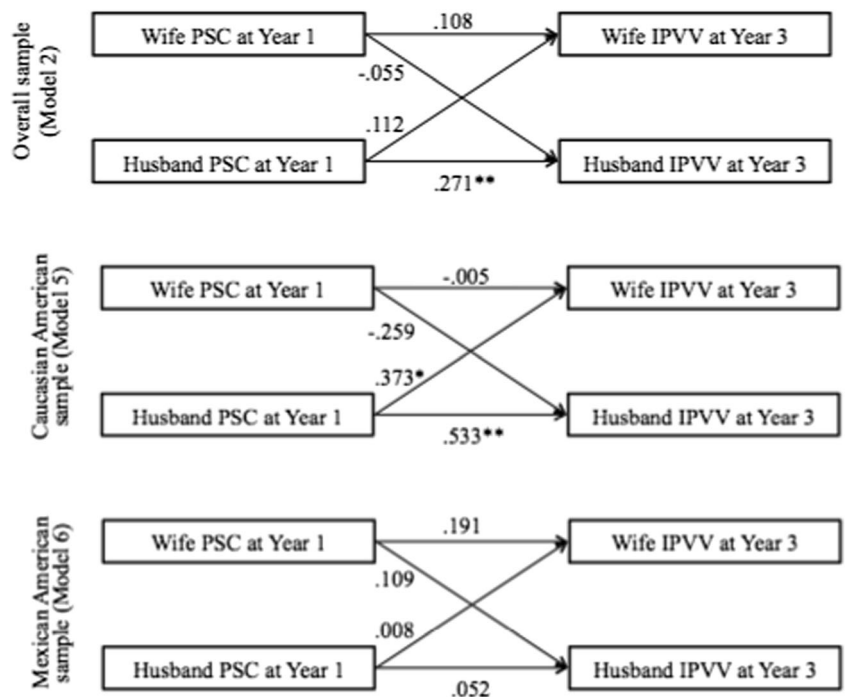


Table 1 Descriptive statistics of study variables for drop-out couples

Variable	Participants only at Year 1 (N=39 couples)				Participants at Years 1 and 3 (N=100 couples)				t
	Min	Max	Mean	SD	Min	Max	Mean	SD	
AFC Men	38.00	69.00	49.10	8.23	38.00	67.00	44.58	6.72	3.06**
PSC Men	32.00	64.00	48.59	8.44	32.00	63.00	46.46	7.78	1.37
IPVV Men	40.00	70.00	52.31	9.45	40.00	73.00	49.51	8.37	1.62
Age Men	18.00	62.00	29.33	8.50	19.00	58.00	28.92	7.97	0.26
AFC Women	36.00	65.00	46.95	7.11	36.00	69.00	43.94	6.73	2.28*
PSC Women	34.00	69.00	50.67	8.74	34.00	66.00	46.06	7.91	2.87**
IPVV Women	40.00	74.00	49.21	8.56	40.00	66.00	46.29	6.98	1.90
Age Women	19.00	60.00	29.00	9.05	19.00	57.00	27.56	8.08	0.87

* $p < .05$, ** $p < .01$, *** $p < .001$

solicitation in Southern California (Imperial Valley and San Diego). Upon completion of an initial screening questionnaire, each partner was interviewed separately during the first year (data were collected in 2007–2009) and during the third year (data were collected in 2009–2011) of marriage, either in face-to-face, telephone, or self-administered interviews. Each interview took approximately 60 to 90 min. At both time points, participants completed measures assessing a variety of dimensions related to marital satisfaction as well as mental health. Mexican American participants completed measures of acculturation and acculturative stress. In addition, a brief demographic questionnaire was administered. As incentives, participants received \$25 for the first interview and \$45 for the second interview (for a total of \$140 per couple).

Materials

In the original study, the Marital Satisfaction Inventory-Revised (MSI-R; Snyder 1997) was used to assess participants’ marital quality and the anxiety and depression content scales of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) were used to assess participants’ mental health. The MSI-R consists of 150 True-False items that cover 13 domains of marital interaction. The MSI-R has demonstrated adequate psychometric properties with Mexican American couples and shows structural equivalence across both Mexican American and White couples (Negy and Snyder 1997) in both English and Spanish (Negy and Snyder 2000). Furthermore, it has been translated into Spanish and shows utility with Mexican as well as Mexican American samples (Negy and Snyder 2000; Negy et al. 2004). More specifically, studies with Mexican American samples have shown the MSI-R to have good internal consistency over the different scales ($M = .82$, range = 0.70–0.93) and test-retest stability coefficients ($M = .79$, range = 0.74–0.88). For the purpose of the present study, the Affective Communication (AFC) and the Problem-Solving Communication (PSC) subscales of the

MSI-R were used to assess partners’ communication behaviors and the Aggression (AGG) subscale of the MSI-R was used to assess intimate partner violence victimization (IPVV). Descriptive statistics (means, standard deviation, ranges) for all main study variables can be found in Table 2.

Affective Communication Affective communication at the first year of marriage was assessed using the AFC subscale of the MSI-R, which evaluates partners’ communication-based emotional intimacy experienced in the relationship. It contains 13 items, covering two aspects of related content, namely, lack of affection and support (e.g., “There is a great deal of love and affection expressed in our relationship,” reverse-scored) and lack of empathy and disclosure (e.g., “It is sometimes easier to confide in a friend than in my partner.”). For each item, participants indicated whether this statement was true (1) or false (0) of their current relationship. After reverse-scoring 7 of the items on the AFC scale, raw scores were summed, so that higher summed raw scores indicated higher dissatisfaction with the amount of affection and understanding expressed by their partner. Husbands’ and wives’ affective communication normalized T-scores at the first year of marriage were used as the antecedent in the first set of analyses for the present study.

Problem-Solving Communication Problem-solving communication at the first year of marriage was assessed using the PSC subscale of the MSI-R, which assesses partners’ general ineffectiveness in resolving differences, and measures overt discord rather than underlying feelings of estrangement. It contains 19 items, covering three aspects of related content, namely, failure to resolve even minor differences (e.g., “A lot of our arguments seem to end in depressing statements.”), lack of specific problem-solving skills (e.g., “Even when angry with me, my partner is able to appreciate my viewpoints,” reverse-scored), and over-reactivity of partner and inability to discuss sensitive topics (e.g., “My partner is so touchy on

Table 2 Descriptive statistics of main study variables for husbands and wives

	Husbands				Wives			
	Min	Max	Mean	SD	Min	Max	Mean	SD
AFC Y1 (raw)	0.00	10.00	1.37	1.79	0.00	12.00	1.85	2.03
AFC Y1 (T)	38.00	67.00	44.58	6.72	36.00	69.00	43.94	6.73
PSC Y1 (raw)	0.00	14.00	4.70	3.75	0.00	16.00	4.26	3.85
PSC Y1 (T)	32.00	63.00	46.46	7.78	34.00	66.00	46.06	7.91
IPV Y3 (raw)	0.00	9.00	1.81	2.09	0.00	7.00	1.07	1.53
IPV Y3 (T)	40.00	73.00	49.43	8.77	40.00	66.00	46.13	7.02
IPV Y1 (raw)	0.00	9.00	1.78	1.97	0.00	7.00	1.09	1.48
IPV Y1 (T)	40.00	73.00	49.51	8.37	40.00	66.00	46.29	6.98
ARMSA Y3	-3.19	2.05	-0.36	1.33	-2.71	1.86	-0.36	1.15
MASI Y3	1.00	2.25	1.38	0.34	1.00	2.49	1.35	0.35

AFC Affective Communication, PSC Problem-Solving Communication, IPV Intimate Partner Violence Victimization, Y1=Year 1, Y3=Year 3, raw=raw score, T=T-score

some subjects that I can't even mention them.) For each item, participants indicated whether this statement was true (1) or false (0) of their current relationship. After reverse-scoring 6 of the items on the PSC scale, raw scores were summed, so that higher summed raw scores indicated higher general ineffectiveness in resolving differences. Husbands' and wives' problem-solving communication normalized T-scores at the first year of marriage were used as the antecedent in the second set of analyses for the present study.

Intimate Partner Violence Victimization Intimate partner violence victimization (IPVV) at the third year of marriage was assessed using the AGG subscale of the MSI-R, which measures partners' level of intimidation and physical aggression experienced from their partners. It contains 10 items, covering two aspects of related content, namely, physical aggression (e.g., "My partner has left bruises or welts on my body.") and non-physical aggression or intimidation (e.g., "My partner has never thrown things at me in anger," reverse-scored). For each item, participants indicated whether this statement was true (1) or false (0) of their current relationship. After reverse-scoring 5 of the items on the AGG scale, raw scores were summed, so that higher summed raw scores indicated higher levels of victimization. Husbands' and wives' IPVV normalized T-scores at the third year of marriage were used as the outcome in both sets of analyses for the present study. In the present sample, 67.0 % of husbands and 52.0 % of wives reported having experienced one or more acts of IPV victimization at the first year of marriage and 64.6 % of husbands and 51.0 % of wives reported having experienced one or more acts of IPV victimization at the third

year of marriage. Unfortunately, IPV perpetration was not assessed in the original study.

Covariates Husbands' and wives' IPVV normalized T-scores at the first year of marriage were included as covariates in all analyses. IPVV normalized T-scores at the first year of marriage were calculated in the same way as IPVV normalized T-scores at the third year of marriage (as described above). In addition, we ran bivariate correlations between our outcome variables (husbands' and wives' IPVV T-scores at the third year of marriage) and a number of individual observed demographic variables (husbands' and wives' ethnicity, age, number of children, level of education, and income; all assessed at the third year of marriage). Number of children was assessed using the item, "How many children do you have?" Husbands' number of children ranged from 1 to 2. Level of education was assessed using the item, "How many years of schooling have you completed?" The median education level was completion of some university for husbands and graduation from a university for wives. Income was assessed using the item, "Which of the following best indicates your yearly income for the last year?" The median yearly income range for both husbands and wives was \$10,001 to \$25,000. Husbands' and wives' income were found to be significantly correlated to one another ($r = .52, p < .001$). Results of correlation analyses relating husbands' and wives' income to ethnicity, affective communication, and problem-solving communication can be found in Table 3. Those demographic variables that were significantly related to the outcome variables were included as covariates in our analyses. Thus, in addition to husbands' and wives' IPVV during the first year of marriage, husbands' number of children, husbands' and wives' level of education, and husbands' income were included as covariates in all regression pathways where husbands' IPVV at the third year of marriage was the outcome variable and wives' level of education was included as a covariate in all regression pathways where wives' IPVV during the third year of marriage was the outcome.

In some of the analyses examining the Mexican American sample only, acculturation and acculturative stress at Year 3 were included as covariates. Acculturation was assessed with the Acculturation Rating Scale for Mexican Americans-II (ARMSA-II; Cuellar et al. 1995). Participants indicated the degree to which 48 statements applied to them on a scale from 1 (not at all) to 5 (extremely often or almost always). Positive scores indicate higher orientation to the Anglo culture and negative scores indicate higher orientation to the Mexican culture (see Cuellar et al. 1995 for a more detailed description of the ARMSA-II). Acculturative stress was assessed with the Multidimensional

Table 3 Correlations between income and ethnicity and predictor variables for husbands and wives

	r	
	Husbands' Income	Wives' Income
Husbands' Ethnicity	−0.23 ^{*a}	−0.21 ^{*a}
Wives' Ethnicity	−0.23 ^{*a}	−0.21 ^{*a}
Husbands' AFC	0.08	−0.07
Wives' AFC	0.03	−0.12
Husbands' PSC	0.08	−0.16
Wives' PSC	0.04	−0.16

* $p < .05$; ** $p < .01$; *** $p < .001$; AFC Affective Communication, PSC Problem-Solving Communication

^a A negative correlation indicates that White Americans had higher incomes than Mexican Americans

Acculturative Stress Inventory (MASI; Rodriguez et al. 2002). Participants indicated the degree to which 25 statements were stressful for them on a scale from 1 (not at all stressful) to 5 (extremely stressful). Higher scores indicate higher levels of stress.

Analytical Approach

A path-analytic approach was used to assess the Actor-Partner Interdependence Model (APIM; Kenny et al. 2006). In Model 1, husbands' affective communication at the first year of marriage and wives' affective communication at the first year of marriage were added as antecedents and husbands' IPVV at the third year of marriage and wives' IPVV at the third year of marriage were added as outcome variables (see Fig. 1). In Model 2, husbands' problem-solving communication at the first year of marriage and wives' problem-solving communication at the first year of marriage were added as antecedents and husbands' IPVV at the third year of marriage and wives' IPVV at the third year of marriage were added as outcome variables (see Fig. 2). In addition, all control variables (see above) were entered into the models. In order to examine differences by ethnicity, four additional models were analyzed, examining Caucasian American and Mexican American couples separately. Models 3 and 4 were the same as Model 1 except for the inclusion of only Caucasian American participants (Model 3) or Mexican American participants (Model 4) in the models (see Fig. 1). Models 5 and 6 were the same as with Model 2 except for the inclusion of only Caucasian American participants (Model 5) or Mexican American participants (Model 6) in the models (see Fig. 2). All analyses involving the Mexican American sample were first conducted without including acculturation or acculturative stress as covariates and were then first repeated with the inclusion of acculturation as a covariate and then repeated with the inclusion of acculturative stress as a covariate to

examine the potential impact of these two variable in the association between communication and IPV victimization. Fit measures were not assessed. According to Kenny (2014), fit indices for SEM-APIM analyses may be misleading and thus, do need not be reported.

Additional Analyses

Because some significant results were found when comparing descriptive statistics of the main study variables at Year 1 among men and women who only participated at Year 1 to those who participated at Years 1 and 3 (see Table 1), additional models were run to compare the associations between husbands' and wives' affective communication, problem-solving communication, and IPV victimization. In these analyses, husbands' affective (or problem-solving) communication at the first year of marriage and wives' affective (or problem-solving) communication at the first year of marriage were added as antecedents and husbands' IPVV at the first year of marriage and wives' IPVV at the first year of marriage were added as outcome variables. These two models were run for both couples who only participated at Year 1 ($N=39$) and couples who participated at Years 1 and 3 ($N=100$).

Results

Model 1: Affective Communication and IPVV

Results of Model 1 partially support the first hypothesis that higher levels of dissatisfaction with affective communication at the first year of marriage would predict increased levels of IPV victimization at the third year of marriage. As can be seen in Fig. 1, the greater husbands' dissatisfaction with affective communication at the first year of marriage, the greater wives' IPV victimization at the third year of marriage ($\beta=.191$, $p=.024$). All other actor and partner effects were found to be non-significant.

Model 2: Problem Solving Communication and IPVV

Results of Model 2 partially support the second hypothesis that higher levels of ineffectiveness of problem-solving communication at the first year of marriage would predict increased levels of IPV victimization at the third year of marriage. As can be seen in Fig. 2, the greater husbands' ineffectiveness of problem-solving communication at the first year of marriage, the greater husbands' IPV victimization at the third year of marriage ($\beta=.271$, $p=.009$). All other actor and partner effects were found to be non-significant.

Models 3 and 4: Affective Communication and IPVV Among Caucasian American and Mexican American Couples

Results of Model 3 are coherent with the results of Model 1, indicating that the associations between husbands' and wives' affective communication and husbands' and wives' IPV victimization generalize across a solely Caucasian American sample (see Fig. 1). More specifically, the greater husbands' dissatisfaction with affective communication at the first year of marriage, the greater wives' IPV victimization at the third year of marriage ($\beta = .389, p = .011$). All other actor and partner effects were found to be non-significant.

When not including acculturation or acculturative stress as covariates, results of Model 4 are not coherent with the results of Model 1, indicating that the associations between husbands' and wives' affective communication and husbands' and wives' IPV victimization do not generalize across a solely Mexican American sample (see Fig. 1). More specifically, all actor and partner effects were found to be non-significant. Even after the inclusion of acculturation as well as after the inclusion of acculturative stress as covariates, all actor and partner effects were found to be non-significant.

Models 5 and 6: Problem-Solving Communication and IPVV Among Caucasian American and Mexican American Couples

Results of Model 5 are partially coherent with the results of Model 2, indicating that the associations between husbands' and wives' problem-solving communication and husbands' and wives' IPV victimization generalize, at least to some extent, across a solely Caucasian American sample (see Fig. 2). More specifically, the greater husbands' ineffectiveness of problem-solving communication at the first year of marriage, the greater husbands' IPV victimization at the third year of marriage ($\beta = .533, p < .001$). In addition, we found a significant partner effect for husbands, which was not previously detected when examining the entire sample: The greater husbands' ineffectiveness of problem-solving communication at the first year of marriage, the greater wives' IPV victimization at the third year of marriage ($\beta = .373, p = .027$). All other actor and partner effects were found to be non-significant. When not including acculturation or acculturative stress as covariates, results of Model 6 are not coherent with the results of Model 2, indicating that the associations between husbands' and wives' problem-solving communication and husbands' and wives' IPV victimization do not generalize across a solely Mexican American sample (see Fig. 2). More specifically, all actor and partner effects were found to be non-significant. Even after the inclusion of acculturation as well as acculturative stress as covariates, all actor and partner effects were found to be non-significant.

Additional Analyses

As can be seen in Table 4, more significant effects were found when examining the data cross-sectionally at Year 1 than when examining the data longitudinally as done in the main analyses of this study, both when looking at couples who only participated at Year 1 and when looking at couples who participated at Year 1 and 3. The direction of all significant effects was positive, thus consistent with the direction of significant effects detected in the main analyses. For affective communication, results among couples who only participated at Year 1 were partially consistent with results among couples who participated at Years 1 and 3. In both samples, both actor effects were significant. However, among couples who only participated at Year 1, only the partner effect from husbands' affective communication to wives' IPV victimization was significant. Among couples who participated at Year 1 and 3, only the partner effect from wives' affective communication to husbands' IPV victimization was significant. For problem-solving communication, results among couples who only participated at Year 1 were partially consistent with results among couples who participated at Year 1 and 3. In both groups, both actor effects were significant. Among couples who only participated at Year 1, the partner effect from wives' problem-solving communication to husbands' IPV victimization was significant. Among couples who participated at Years 1 and 3, neither one of the partner effects was significant.

Discussion

The aim of the present study was to examine the association between partners' subjective evaluation of two different kinds of communication styles (affective communication and problem-solving communication) and the experience of intimate partner violence victimization. Findings of the current analyses partially support the hypotheses. For affective communication, a significant partner effect emerged, indicating that husbands' higher dissatisfaction with affective communication was related to wives' higher IPV victimization. Husbands, who are dissatisfied with the amount of affection and understanding expressed by their wives, may deal with this dissatisfaction in maladaptive, manipulative ways, such as through the use of aggressive behaviors. These behaviors, in turn, may lead wives to behave even less affectionately and to show even less understanding in the long run. For problem-solving communication, a significant actor effect emerged, indicating that husbands' higher dissatisfaction with problem-solving communication was related to husbands' higher IPV victimization. Husbands, who are less effective in resolving differences and who experience more overt discord in their relationships, may be more likely to be victimized. This may be because husbands' lack of skills in resolving

Table 4 Standardized regression coefficients and standard errors for drop-out couples

	Participants only at Year 1 (N=39 couples)			Participants at Years 1 and 3 (N=100 couples)		
	B	SE	p	B	SE	p
Outcome: IPVV Men						
AFC Men	0.44	0.14	< 0.01	0.30	0.10	< 0.01
AFC Women	0.16	0.15	0.29	0.20	0.10	0.04
PSC Men	0.50	0.12	< 0.01	0.46	0.09	< 0.01
PSC Women	0.29	0.13	0.03	0.09	0.10	0.39
Outcome: IPVV Women						
AFC Men	0.31	0.14	0.03	-0.03	0.10	0.76
AFC Women	0.35	0.14	0.01	0.46	0.09	< 0.01
PSC Men	0.27	0.15	0.06	0.03	0.10	0.73
PSC Women	0.41	0.14	< 0.01	0.51	0.09	< 0.01

AFC Affective Communication, PSC Problem-Solving Communication, IPVV IPV Victimization

issues and arguments might provoke wives and might increase chances that wives, possibly out of frustration, may resort to violence towards their partners. These findings indicating that husbands’ communication behaviors appear to have a larger impact on both partners’ levels of IPV than wives’ communication behaviors are concordant with previous research (e.g., Babcock et al. 1993).

Next, we examined ethnic differences in these patterns among Caucasian American versus Mexican American couples. Findings among Caucasian American couples were largely consistent with findings in the overall sample. More specifically, for affective communication, a significant partner effect emerged for husbands (as did in the overall sample). For problem solving communication, a significant actor effect emerged for husbands. Also, a significant partner effect emerged from husbands’ affective communication to wives’ IPV victimization. Husbands’ higher dissatisfaction with problem-solving communication was related to wives’ higher IPV victimization. Thus, among Caucasian American couples, husbands’ ineffectiveness in resolving differences may lead to bidirectional violence in that both partners may become perpetrators and victims of IPV.

Interestingly, the findings detected in the overall sample did not generalize to the solely Mexican American sample, neither when acculturation or acculturative stress was included as covariates in the model nor when they were not included. In fact, no significant actor and partner effects for the association between partners’ satisfaction with the two different communication behaviors and partners’ IPV victimization emerged. Although communication is clearly important for both Caucasian and Mexican American partners, what exactly communication means for partners and how communication behaviors may impact levels of aggression may differ across cultures. Whereas for Caucasian American couples, making some effort to work cooperatively on problem-solving of issues might

help create a social and psychological environment that may insulate partners against behavior that may perpetuate domestic violence (Feldman and Ridley 2000), communication behaviors may not impact Mexican American couples’ levels of IPV. Mexican American partners’ behaviors, including their levels of aggression, may in fact be guided by some other perceptions, not assessed in the present study. Alternatively, it may be more important to look at actual communication behaviors among Mexican American couples, rather than their perceptions of communication efficacy. Doing so might shed more light on the association between communication and IPV among these couples. The present findings highlight interesting and important differences between Mexican American and Caucasian American couples in the communication-IPV association. However, which perceptions and mechanisms are responsible for increasing or decreasing Mexican Americans’ risk of experiencing IPV remain unclear. It is important to point out that the present study does not imply that communication is not important among Mexican American couples – in fact, it is quite important, but it does not seem to affect IPV victimization, at least not in the current sample. Other variables, and potentially, other pathways, may play a role in the communication IPV relationship among Mexican American couples.

Finally, we did detect differences between couples who participated in both phases of data collection and couples who failed to re-participate at the second phase of data collection, both in terms of descriptive statistics of the main study variables at Year 1 and in terms of the cross-sectional association between husbands’ and wives’ affective and problem-solving communication and their IPV victimization. It is not surprising that we found more significant actor and partner effects in these cross-sectional analyses than in the main longitudinal analyses, because the main analyses allowed us to account for additional variance in the outcome variable (IPV

victimization at Year 3), namely IPV victimization at Year 1. Results comparing couples who only participated at Year 1 to couples who participated at Years 1 and 3 lends some support for the conclusion that these two groups may differ in terms of their characteristics, at least to some degree. It is possible that couples who failed to re-participate at Year 3 were less committed to one another and the relationship overall and, thus, dynamics in their relationships may have been different. They may also have experienced more severe violence limiting the likelihood of continuing in the study. It could be that those couples who did not re-participate belonged to a sample that in fact may have become more clinical in nature in terms of the severity of IPV experienced throughout the early years of marriage, whereas those couples who did re-participate clearly could be described as a community sample in terms of their relatively low levels of IPV. However, since results of our cross-sectional analyses examining the main variables of interest were not that different and since the overall number of couples in the drop-out sub-sample was relatively small, our interpretation of these findings remains limited.¹

Our results indicate that the influences of affective communication and problem-solving communication on IPV victimization may not be as strong as possibly thought, in that only a few significant actor and partner effects were found. Nonetheless, our findings may help to guide approaches or interventions that address differences in relationship characteristics among Caucasian versus Mexican American couples in that our results highlighted differences between these groups.

Strengths and Limitations

Several features of the design and methods enhance our confidence in the findings reported here. First and foremost, data from both members of the dyad were collected, thereby allowing for the estimation of both actor and partner effects while accounting for non-independence and interrelatedness of husbands' and wives' data (Kenny et al. 2006). Second, in order to clarify the temporal nature of the communication-IPV association, data were collected at two different time points, during the first and during the third year of marriage. Third, the sample chosen for the present study, newlyweds, was an appropriate sample to address the question of interest, because these couples find themselves in a particularly formative period of their partnership and partners' behaviors during the first years of marriage may foreshadow long-term marital fate (Huston et al. 2001). Another strength of the current design was the measurement of IPV victimization at both time points, which allowed us to include IPV victimization not only as an outcome variable but also as a

control variable in the models we examined. Finally, the inclusion of several covariates in the main analyses, in particular the inclusion of acculturation and acculturative stress in analyses examining the Mexican American sample, offered several advantages in that it allowed to account for additional variance in the outcome variable.

Nevertheless, several factors limit interpretation of the current findings. First, even though two waves of data were collected, additional waves would increase confidence in the current findings and would further elucidate the temporal nature of the communication-IPV association. It might also be useful to assess participants at shorter time intervals in between data collections in order to be able to measure even minor fluctuations in aggression over time. Second, the sample chosen was relatively homogenous. For example, all couples in the present study were recruited from the community and levels of aggression were relatively low. Thus, it remains unclear whether findings are generalizable to clinical samples, such as samples recruited from battered women's shelters or batterers' treatment programs, in which partners may experienced more severe and frequent acts of IPV. It is likely that partners from clinical populations have different motivations that lead them to resort to violence, such as the intent to use power-and-control tactics to gain dominance. On the contrary, community couples, who experience mild to moderate violence only, may be motivated to resort to violence out of frustration and because they possess poor communication skills or little access to emotional language to express feelings (Horwitz et al. 2009). Also, the overall sample size of the present study was relatively small, and the sample sizes of the solely Caucasian American and the solely Mexican American samples were even smaller. However, since significant results were found, concerns may be limited. Finally, the present study relied solely on self-report measures, and, quite importantly, we were unable to assess IPV perpetration, which may bias the present findings. Although one partner's report of victimization should closely correspond to the other partner's report of perpetration, we cannot assert so for certain without having included the actual measure.

Future Research

Future research may benefit from addressing the limitations addressed above. For example, researchers may consider replicating the present study and collecting data at more than two points in time, comparing older and younger couples, comparing community and clinical populations, and using a larger overall sample size. Since the present results appear to be mainly driven by participants in the Caucasian American sample, it will be interesting to examine whether findings hold across other ethnic samples, such as among African American and Asian couples. Furthermore, more research is needed to examine the association between perceptions of

¹ Further analyses comparing ethnic differences between drop-out couples were not conducted due to the even smaller sample sizes in these sub-groups.

communication skills and IPV among Mexican American couples or other couples with immigration backgrounds and to further explore the role of acculturation in this association. In addition, it might be advantageous to use measures other than self-report to assess the study variables. Observational measures may be useful for the assessment of partners' communication skills and behaviors. It might also be interesting to add additional variables to the models proposed in the present study. For example, stress and anger have been repeatedly found to be related to communication behaviors and IPV (e.g., Babcock et al. 2011). Future research thus might examine the potential role of affective communication or problem-solving communication in mediating the associations between stress and anger and IPV. Future studies should consider examining the full range of perpetrator-victim roles that husbands and wives may be involved in by assessing IPV perpetration, IPV victimization, as well as bidirectional violence.

Practical Implications

The present findings may also benefit clinicians and policy makers in developing effective intervention and prevention strategies. Couples therapy including a communication skill-building component, with a particular focus on increasing husbands' skills, may be effective for some partners experiencing IPV. By improving husbands' problem-solving communication skills, both their own as well as their partners' levels of violence may be reduced. Possible communication skills interventions may include Babcock et al.'s (2011) editing-out-the-negative skills training and accepting influence skills training. It is important to keep in mind that couples therapy may only be beneficial as long as couples experience common couple violence as opposed to more severe forms of IPV, often referred to as patriarchal terrorism, in which one partner attempts to manipulate the other through the use of violence (Johnson 1995).

A viable alternative to IPV intervention strategies is to work on communication and interpersonal competence skills early on in the relationship, before more severe problems that may lead to IPV have arisen. Doing so may assist intimate partners in expanding the scope of options to manage their disagreements (Horwitz et al. 2009). The Prevention and Relationship Enhancement Program (PREP; Markman et al. 1993) is a preventive intervention program administered to couples while they are still happy, or at least in the early stages of distress, which, among other things, includes a communication and problem-solving skill-building component. According to previous research (Markman et al. 1993), this program appears to give couples a significant advantage in communication and conflict management up to 4 years later, and subsequently, leads to a reduced tendency to resort to physical violence.

Conclusions

The data from the present study highlight important considerations for understanding patterns of communication and violence among community couples. Overall, it was found that couples' effective communication behaviors may help sustain positivism and satisfaction within the relationship that may decrease couples' likelihood of experiencing IPV victimization (concordant with previous research; e.g., Feldman and Ridley 2000). According to the present findings, husbands' communication behaviors and subjective feelings of satisfaction with communication skills may have a larger impact on whether partners resort to violence than wives' communication behaviors. Interestingly, while the current findings applied to Caucasian American couples, they did not generalize to Mexican American couples. Clearly, additional dyadic research examining ethnic differences in the communication-IPV association is needed. The present study may provide a useful framework for this future research and may lay the groundwork for examining this association in a larger, more diverse sample and using an altered research methodology (such as more waves of data collection and observational measures of communication skills). In addition to providing benefits to researchers in the areas of communication and IPV, the present findings may aid practitioners and policy makers in developing IPV prevention and interventions plans designed at building communication skills.

Acknowledgments This research was supported by a Minority Research Infrastructure Support Program subcontract grant to Donna Castañeda-National Institute of Mental Health, Grant # 5R24 MH55515.

References

- Archer, J. (2000). Sex differences in aggression between heterosexual partners: a meta-analytic review. *Psychological Bulletin*, *126*, 651–680.
- Babcock, J. C., Waltz, J., Jacobson, N. S., & Gottman, J. M. (1993). Power and violence: the relation between communication patterns, power discrepancies, and domestic violence. *Journal of Consulting and Clinical Psychology*, *61*(1), 40–50.
- Babcock, J. C., Graham, K., Canady, B., & Ross, J. M. (2011). A proximal change experiment testing two communication exercises with intimate partner violent men. *Behavior Therapy*, *42*(2), 336–347.
- Caetano, R., Ramisetty-Mikler, S., Caetano Vaeth, P. A., & Harris, T. R. (2007). Acculturation stress, drinking, and intimate partner violence among Hispanic Couples in the U.S. *Journal of Interpersonal Violence*, *22*(11), 1431–1447.
- Cordova, J. V., Jacobson, N. S., Gottman, J. M., Rushe, R., & Cox, G. (1993). Negative reciprocity and communication in couples with a violent husband. *Journal of Abnormal Psychology*, *102*, 559–564.
- Cornelius, T., Shorey, R., & Beebe, S. (2010). Self-reported communication variables and dating violence: using Gottman's marital communication conceptualization. *Journal of Family Violence*, *25*(4), 439–448.

- Cuellar, I., Arnold, B., & Maldonado, R. (1995). Acculturation rating scale for Mexican Americans-II: a revision of the original ARSMA scale. *Hispanic Journal of Behavioral Sciences*, 17(3), 275–304.
- Feldman, C. M., & Ridley, C. A. (2000). The role of conflict-based communication response and outcomes in male domestic violence toward female partners. *Journal of Social and Personal Relationships*, 17, 552–573.
- Flores, E., Tschann, J. M., Vanoss Marin, B., & Pantoja, P. (2004). Marital conflict and acculturation among Mexican American husbands and wives. *Cultural Diversity and Ethnic Minority Psychology*, 10(1), 39–52.
- Gordis, E. B., Margolin, G., & Vickerman, K. (2005). Communication and frightening behavior among couples with past and recent histories of physical marital aggression. *American Journal of Community Psychology*, 36(1–2), 177–191.
- Hellmuth, J. C., & McNulty, J. K. (2008). Neuroticism, marital violence, and the moderating role of stress and behavioral skills. *Journal of Personality and Social Psychology*, 95(1), 166–180.
- Horwitz, S. H., Santiago, L., Pearson, J., & LaRussa-Trott, M. (2009). Relational tools for working with mild-to-moderate couple violence: patterns of unresolved conflict and pathways to resolution. *Professional Psychology: Research and Practice*, 40(3), 249–256.
- Huston, T. L., Caughlin, J. P., Houts, R. M., Smith, S. E., & George, L. J. (2001). The connubial crucible: newlywed years as predictors of marital delight, distress, and divorce. *Journal of Personality and Social Psychology*, 80(2), 237–252.
- Johnson, M. P. (1995). Patriarchal terrorism and common couple violence: two forms of violence against women. *Journal of Marriage and the Family*, 57(2), 283–294.
- Kenny, D. A. (2014). *Dyadic Data Analysis, Chapter 7: Elaborations*. Retrieved from <http://davidakenny.net/kkc/c7/c7.htm>.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). Analyzing mixed independent variables: the actor-partner interdependence model. In D. A. Kenny, D. A. Kashy, & W. L. Cook (Eds.), *Dyadic data analysis* (pp. 144–184). New York, NY: Guilford Press.
- Lamichhane, P., Puri, M., Tamang, J., & Dulal, B. (2011). Women's status and violence against young married women in rural Nepal. *BMC Women's Health*, 11(1), 19–27.
- Markman, H. J., Renick, M., Floyd, F. J., Stanley, S. M., & Clements, M. (1993). Preventing marital distress through communication and conflict management training: a 4- and 5-year follow-up. *Journal of Consulting and Clinical Psychology*, 61(1), 70–77.
- Messinger, A. M., Davidson, L. L., & Rickert, V. I. (2011). IPV among adolescent reproductive health patients: the role of relationship communication. *Journal of Interpersonal Violence*, 26(9), 1851–1867.
- Messinger, A. M., Rickert, V. I., Fry, D. A., Lessel, H., & Davidson, L. L. (2012). Revisiting the role of communication in adolescent intimate partner violence. *Journal of Interpersonal Violence*, 27(14), 2920–2935.
- Nagae, M., & Dancy, B. L. (2009). Japanese women's perceptions of Intimate Partner Violence (IPV). *Journal of Interpersonal Violence*, 25(4), 753–766.
- Naved, R., & Persson, L. (2005). Factors associated with spousal physical violence against women in Bangladesh. *Studies in Family Planning*, 36(4), 289–300.
- Negy, C., & Snyder, D. K. (1997). Ethnicity and acculturation: assessing Mexican American couples' relationships using the marital satisfaction inventory-revised. *Psychological Assessment*, 9, 414–421.
- Negy, C., & Snyder, D. K. (2000). Reliability and equivalence of the Spanish translation of the marital satisfaction inventory-revised. *Psychological Assessment*, 12, 425–430.
- Negy, C., Snyder, D. K., & Diaz-Loving, R. (2004). A cross-national comparison of Mexican and Mexican American couples using the marital satisfaction inventory-revised. *Psychological Assessment*, 11, 49–56.
- Panuzio, J., & DiLillo, D. (2010). Physical, psychological, and sexual intimate partner aggression among newlywed couples: longitudinal prediction of marital satisfaction. *Journal of Family Violence*, 25(7), 689–699.
- Pico-Alfonso, M. A., Garcia-Linares, M., Celda-Navarro, N., Blascos, C., Echeburúa, E., & Martinez, M. (2006). The impact of physical, psychological, and sexual intimate male partner violence on women's mental health: depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. *Journal of Women's Health*, 15(5), 599–611.
- Robertson, K., & Murachver, T. (2006). Intimate partner violence: linguistic features and accommodation behavior of perpetrators and victims. *Journal of Language and Social Psychology*, 25(4), 406–422.
- Rodriguez, N., Myers, H. F., Mira, C. B., Flores, T., & Garcia-Hernandez, L. (2002). Development of the multidimensional acculturative stress inventory for adults of Mexican origin. *Psychological Assessment*, 14(4), 451.
- Snyder, D. (1997). *Manual for the Marital Satisfaction Inventory - Revised*. Los Angeles: Western Psychological Services.
- U.S. Census Bureau (2012). *2012 national populations projections*. Retrieved from <https://www.census.gov/population/projections/data/national/2012.html>. Accessed 26 June 2015.
- Waltz, J., Babcock, J. C., Jacobson, N. S., & Gottman, J. M. (2000). Testing a typology of batterers. *Journal of Consulting and Clinical Psychology*, 68, 658–669.