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Abstract

Traditional machismo in Mexican American culture has been considered detrimental to marital satisfaction (MS). Contrary to this notion, contemporary views of machismo suggest that masculinity in Mexican American couples is contextual and fluid along a continuum of positive and negative dimensions. In this study, the dyadic effects of positive and negative machismo on MS in Mexican American couples were explored using actor-partner interdependence model (APIM) analyses. A sample of 112 Mexican American couples completed bilingual self-report questionnaires assessing endorsement of machismo beliefs and MS. Adjustments were made for income, acculturation, and number of children. Results showed an actor effect of overall machismo on MS for husbands among low-acculturated but not high-acculturated couples. Furthermore, we found that wives' endorsement of positive machismo beliefs was associated with higher levels of their own MS, whereas moderate levels of positive machismo were associated with higher levels of MS for husbands. In contrast, wives' endorsement of negative machismo was associated with lower levels of their husbands' MS (a partner effect). Additional analyses revealed that among low-acculturated couples, husbands' positive machismo was positively associated with their own MS, but not among high-acculturated couples. Among wives, we found the opposite pattern: wives in low-acculturated couples showed no association between positive machismo and MS, but among high-acculturated couples, wives' endorsement of positive machismo was positively associated with their own MS. These findings call for a more nuanced understanding of positive and negative machismo and challenge stereotypical notions of machismo still prevalent in popular culture and research as intrinsically pathological.

Keywords

marital satisfaction, machismo, Latinos, Actor-Partner Interdependence Model, caballerismo

Little is known about the ways in which machismo impacts marital satisfaction (MS) in Mexican American couples. In fact, the field of marriage and family research with Latinos in the United States was completely underdeveloped in the 1980s and 1990s (Marin & Marin, 1991; Staples &

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Mirandé, 1980; Vega, 1990), and marital research continues to lag today despite the centrality of family values, structure, and cohesion for Latinos (Bradbury, Finchman, & Beach, 2004; Vega et al., 1986). Understanding marital satisfaction (MS) is of paramount importance because MS is a barometer that indicates how negativity is regulated over time (Gottman, 1994), how satisfying and dissatisfying dimensions are dyadically perceived by couples, and specific to migrant Latinos, how acculturative experiences and stress are negotiated and integrated in meaningful ways in marital relationships.

It seems logical to assume that traditional Latin values and attitudes such as the husband's need to be the head of the household or a wife's belief in being deferent to her husband are detrimental to marriage satisfaction, especially because of the long assumed pathological complementarity between machismo and marianismo (Breuner, 1992; Collier, 1986; Paz, 1985; Stevens, 1973; Wood & Price, 1997). However, this pathological complementarity has not been investigated. More specific to Mexican American couples, traditional machismo has been characterized by hyper-masculinity, dominance, excessive control, and ultimately the supremacy of a father and husband in the family (Aramoni, 1972; Breuner, 1992; Gilmore & Gilmore, 1979; Mirandé, 1997; Paz, 1985). However, contemporary definitions of machismo have challenged these stereotypical views as new research has found machismo to be described by positive and negative dimensions (Arciniega, Anderson, Tovar-Blank, & Tracey, 2008; Neff, 2001). While the notion of gentleman ("caballerismo"), chivalry, and capacity for nurturing characterizes positive machismo, negative machismo centers around dominance in the relationship and family protection. These dimensions are operationalized along a continuum including not only extreme and overt behaviors but also subtle and covert beliefs and attitudes within overlapping and contextual characteristics (Mirandé, 1997). For example, acting upon his belief that a man's number one priority is to provide for and protect his family, a husband may openly disapprove of his wife's desire to work or, in a more subtle way, withdraw emotionally when she attempts to look for a job. Ultimately, machismo can be defined as a constellation of personality traits associated with masculinity, which are shaped by complex gender role socialization processes which, ultimately, conflict with family roles (Cervantes, 2006).

While, on one hand, traditional machismo in Mexican Americans has been found to be negatively correlated with MS (Garcia-Bravo, 2009), Mexican American couples that report adherence to traditional values and roles tend to report increased MS and adjustment (Garcia-Bravo, 2009; Morales, 1997). Some have hypothesized that a greater risk for interpartner violence found in Mexican American and Mexican couples in the middle of the process of acculturation may be due to increased stress and difficulty negotiating disparate values (Caetano, Shafer, Cunradi, & Raspberry, 2000). However, it is the controlling and domineering qualities of *negative machismo* that are considered detrimental to marriages and families (Diaz-Guerrero, 2000; Galanti, 2003). In fact, in Mexican families, ideologies of honor have been found to simultaneously protect women from spousal abuse and at the same time empower men to act violently (Figueredo et al., 2001). Subtle machismo attitudes could also be seen as expressions of benevolent sexism, which are paternalist remarks and attitudes disguised through affectionate idealization of women (Glick, 2006). For example, a husband may insist on taking care of physically demanding tasks around the house, stating affectionately how he does not want his wife to get hurt. However, in a pro-family cultural context, these attitudes could be framed as a man's expression of gentlemanly attitudes.

Traditional gender role expectations in Mexican American men are influenced by cultural and social expectations about the importance of being a provider and a family protector in forming a masculine identity (Lara-Cantu & Navarro-Arias, 1986). In couples, husband's ascendancy is valued culturally because it helps sustain family structure and conveys socially that one is taking care of the family. Nonetheless, dominance in decision-making and distribution of household

responsibilities are typically used to judge how couples share influence and, in Latin couples, to determine the presence of machismo. Mexican American migrants forced to reside in community with other men have been found to be more involved in household chores and strive for a more egalitarian relationship upon reunification with their spouse or partner (Hondagneu-Sotelo, 1992). On the other hand, when investigating dominance in decision-making, Cromwell and Ruiz (1979) found that Mexican and Chicano couples agree that husbands make decisions more frequently. However, this agreement may be the way machismo is negotiated by Mexican American couples, especially in public (Coltrane, 1992). Adequate levels of dominance in decision-making and family protectiveness may be necessary for optimal satisfaction in a marriage. Nonetheless, a husband who is controlling and overprotective and, as a result, who has no leadership capacity to sustain the structure of the family (excessive machismo) could be less satisfied individually but also could make marriage less satisfying. Therefore, it may be that the relationship between machismo and MS is curvilinear, rather than simply linear, with moderate levels of dominance and protectiveness being necessary for satisfaction in the marriage. In fact, husbands' moderate levels of dominance have been found to increase wives' MS, while extremes were found to be detrimental (Weisfeld, Russell, Weisfeld, & Wells, 1991). A key aim of the current study was to investigate the linear and quadratic effects of machismo on MS in Mexican American couples.

Another step necessary to understanding how machismo contributes to MS in couples is to analyze positive and negative dimensions of machismo as independent constructs. Positive machismo is defined as importance placed in sticking to one's beliefs, being respected by others, and making family the number one priority (Neff, 2001). A conceptualization of machismo as exclusively negative makes pro-social and relational behaviors antithetical to masculinity (Hardin, 2002). However, a man's pro-social, communal, and relational capacities are essential to individual well-being and healthy marital dynamics. In contrast, negative machismo is characterized by ascendancy during important decision-making, protectiveness, dominance, and emotional toughness (Mirandé, 1997; Neff, 2001). The way couples negotiate positive and negative dimensions of machismo should affect how Mexican American couples manage stress, regulate conflict, share responsibilities, and maintain friendship. For example, the excessive dominance and overly protective attitudes exemplified by negative machismo are likely to be psychologically demanding for a husband and present continued challenges to the marital relationship. On the other hand, aspects of positive machismo, such as emotional availability and respect, may increase couples' capacity to share influence and to create a culture of appreciation and positivity in a marriage, which are essential to maintaining MS and to regulating conflict (Gottman, 1994). We propose that high levels of gentlemanly like attitudes manifested in positive machismo (e.g., keeping one's word, respecting others, making family the number one priority) foster marital satisfaction, whereas high levels of negative machismo (e.g., family protectiveness, dominance, or emotional toughness) impede marital satisfaction.

It is important to note that wives' endorsement of positive and negative machismo characteristics may uniquely affect Mexican American couples' perception and attitudes related to being a gentleman or establishing dominance, above and beyond husbands' endorsement of machismo. Because couples tend to marry partners who have similar characteristics, it is possible that Mexican American husbands who endorse machismo beliefs marry wives who also endorse machismo beliefs or who find certain machismo attitudes desirable. Novel statistical analyses in recent years framed as the Actor-Partner Interdependence Model, or APIM (Kashy & Kenny, 2000; Kenny, 1996) have called for the use of data analytic approaches that account for dyadic data that are statistically nonindependent. This dyadic interdependence related to machismo in Latin couples has not been investigated, and this study presents an opportunity to apply the new APIM methodology to examine how Mexican American husbands' and wives' endorsement of machismo uniquely affect their own MS and their spouses' MS.

The purpose of this study was to use actor-partner analyses to investigate the relationship between machismo (overall, negative and positive) and MS in Mexican married couples. The following hypotheses were tested:

Hypothesis 1: If the long-held views of machismo as only negative and pathological are true, then as overall machismo in both partners' increases, MS should decrease. However, we predicted a curvilinear relationship between overall (combined positive and negative) level of machismo and MS, such that moderate levels of machismo are associated with high MS, whereas very low and very high machismo are associated with low MS.

Hypothesis 2: We propose that husbands' and wives' endorsement of positive machismo are desirable to foster a culture of appreciation and affection necessary to sustain marital satisfaction, whereas the increased need for influence and dominance of negative machismo is detrimental to satisfaction. Specifically, we hypothesized that positive machismo would be positively associated with MS (Hypothesis 2a) and that negative machismo would be negatively associated with MS (Hypothesis 2b).

In addition, it seemed important to explore whether or not these effects would vary by acculturation level, the bidirectional rejection and/or endorsement of Mexican and U.S. customs and values. Such effects have been seen in couples as mentioned above (Marin & Marin, 1991; Morales, 1997); some research has even disclosed gender differences in the trajectories of acculturation for Mexican American husbands and wives (Grzywacz, Rao, Gentry, Marin, & Arcury, 2009). This might be particularly important in a study of machismo; thus, acculturation was examined in secondary analyses in which the sample was stratified by high and low acculturation.

Method

Participants

Self-report questionnaires were completed by 112 Mexican American married couples residing in the suburban and metropolitan area of Detroit, Michigan. This sample size is adequate for an expected medium-size relationship between the DV, MS, and machismo as the IV, with age, income, and acculturation as covariates (Tabachnick & Fidell, 2001). Couples were recruited using church announcements, word of mouth referrals, and newspaper advertising in areas with higher concentrations of Mexican residents. This study was limited to Mexican American couples given the heterogeneity of the Latin culture, not only due to socioeconomic characteristics but also in terms of acculturative experiences (Hurtado, 1995, Vega, 1990).

Measures

Marital satisfaction (MS). MS was measured using the Marriage and Relationship Questionnaire's Love Scale (Russell & Wells, 1986; 1993), which consists of nine questions rating the level of emotional attachment between spouses. Higher scores, rated with a Likert-type scale, represent greater marital adjustment. When translating the scale, after back-translation procedures were used (Brislin, 2000), a pilot test was conducted with six couples to assess for cultural differences in meaning (Aponte & Clifford, 1995). A Cronbach's alpha value of .82 was found in this sample and was indicative of optimal reliability of the scale when used with Mexican American couples. The Love Scale has demonstrated excellent cross-cultural validity and internal consistency, with Cronbach's alphas ranging from .87 to .91 for husband and wives, respectively (Lucas et al., 2008).

Machismo. Machismo was measured using the Machismo Scale, which was validated with Anglo, African American, and Mexican Americans (Neff, 2001). The self-report questionnaire is a 13-item Likert-type scale with response options ranging from 0 (*totally in disagreement*) to 4 (*totally in agreement*). This scale was built upon a previously developed measure of machismo (Neff, Prihoda, & Hoppe, 1991) to include both positive and negative dimensions. The positive dimension of machismo was derived from those characteristics of machismo associated with honor, assertiveness, responsibility, and reputation (Gayton, Sawyer, & Baird, 1982; Lara-Cantu, 1990), which were typically not included in traditional measures of machismo (Feliz-Ortiz, Abreu, Briano, & Bowen, 2001). The negative dimension is a refined version of the original machismo scale (Neff et al., 1991) composed of variables associated with control of emotions, risk taking, and personal honor congruent with traditional notions of machismo. The negative dimension also included additional items related to dominance and equity in decision making in the marriage. In this study, the Machismo scale was given to both members of the couple, with a wife's scores representing endorsed machismo. While this scale was originally validated with a male sample, the use of machismo surveys to rate endorsement of machismo beliefs and attitudes by females has yielded reliable information about Latin women's gender role expectations of Latin males (Lara-Cantu, 1990; Lara-Cantu & Navarro-Frias, 1986). A Cronbach's alpha value of .62 found for the sample surveyed in this study was lower than the .82 reported in the initial validation of the scale, suggesting that the measure cannot be defined by one dimension. The final overall machismo score used for analysis was created adding together positive and negative dimensions of machismo. The combination of negative and positive dimensions is consistent with the original scale validation as a unified spectrum (and the overlapping and coexisting characteristics of these dimensions within the same individual) (Mirandé, 1997). Nonetheless, separate actor-partner analyses for positive and negative machismo were also conducted to assess the dyadic associations of each dimension to MS.

Acculturation. Assessment of acculturation was conducted using the Cultural Life Style Inventory (Mendoza, 1989, 1994), which is a 29-item, self-report, multiple-choice inventory that measures type and degree of acculturation, with the assumption that acculturation is bidimensional. Questions were derived from five relatively orthogonal dimensions including intra- and extra-family language use, social and cultural affiliation and activities, and cultural identification. The inventory has excellent internal consistency values (Cronbach's alpha ranging from .84 to .91 for each dimension), test-retest stability (r ranging from .91 to .95), and English-Spanish equivalence. Reliability analysis conducted for this sample yielded a comparable Cronbach's alpha value of .91, indicating optimal internal consistency of this scale when used with Mexican American couples. Adjustments for acculturation were conducted using a global acculturation score estimated as the average of the 29 items for each member of the couple. Higher scores indicate higher level of acculturation.

Procedure

Spouses were instructed to fill out the questionnaire independently in their preferred language—Spanish or English—and to seal the completed questionnaire into separate envelopes provided. Most of the couples (88%) completed the survey at home, and only 12% of the couples completed questionnaires in a group setting.

Initial Data Analyses

Preliminary analyses included computing descriptive comparisons between machismo, MS, and covariates for each partner and couples; a correlation matrix between covariates; and tests of

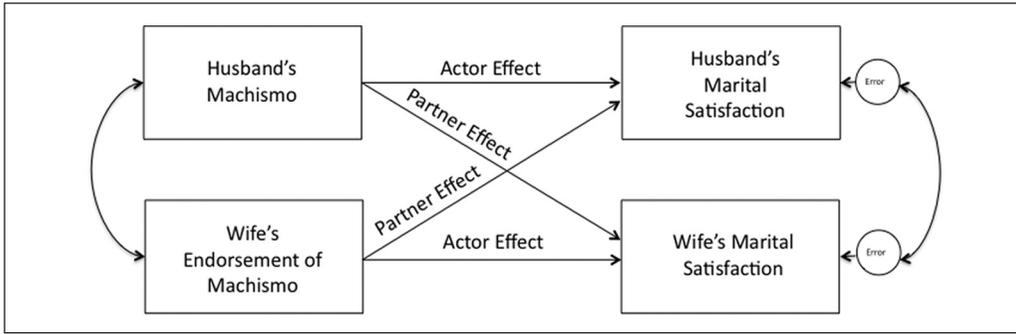


Figure 1. Actor-Partner Interdependence Model (APIM) Used to Estimate the Associations Between Machismo and Marital Satisfaction

hypotheses using dyadic analyses (described below). A total of seven questionnaires completed by husbands and six completed by wives were eliminated from analysis due to missing >15% of the data in a particular scale or outliers. For scales missing <15% of data (one to three items depending on the scale), missing values were replaced by the mean of all the respondents in the sample for that particular item. Included in the final analysis were 102 questionnaires completed by husbands and 104 questionnaires completed by their wives. In all analyses, the alpha level chosen for statistical significance was $p < .05$. Where effects occurred with a probability of $.05 < p < .10$, they were considered as statistical trends approaching significance.

Log transformations were performed on the measures for number of children, husband's MS, and husband's machismo to increase normality. A square root transformation on the variable of the couple's acculturation did not improve normality. As a result, original acculturation values were maintained. A $p < .001$ criterion for Mahalanobis distance was used to detect multivariate outliers (Tabachnick & Fidell, 2001). As a result, one multivariate outlier was eliminated from analysis.

Dyadic Analyses: The Actor-Partner Interdependence Model (APIM)

A unique characteristic of dyadic data is that the data from two couple members are not independent. For example, people who are satisfied in their marriage tend to have spouses who also are satisfied, people who are optimistic tend to have optimistic spouses, and so on. To account for this interdependence in statistical analyses, relationship researchers in recent years have begun to frame their analyses in the Actor-Partner Interdependence Model (Kashy & Kenny, 2000; Kenny, 1996).

The APIM is a technique designed to address interdependence in dyadic analysis. This technique allows researchers to estimate, for example, the influence of one person's behavior (e.g., husbands' machismo beliefs) on his own marital satisfaction—called *actor* effects—as well as the effects of his behavior on his spouse's marital satisfaction—called *partner* effects. We illustrate this basic APIM design in Figure 1. Estimation of actor and partner effects can conveniently be accomplished using structural equation modeling (SEM) and other commonly used statistical methods.

We conducted APIM analyses using SEM to examine associations between husbands' and wives' perceptions of machismo and marital satisfaction. Because all of our dyads are heterosexual married couples, we distinguished the members of the dyads based on gender. The basic APIM model is just identified or saturated (for illustrative examples, see Kashy & Kenny, 2000; Kenny & Acitelli, 2001). As such, it has zero degrees of freedom and model fit cannot be examined (see Byrne, 2001; Kline, 2005 for a full explanation of identification within SEM).

Inclusion of Covariates in APIM Analyses

Potential covariates were evaluated. These included acculturation, years of marriage, number of children, educational level attained, and socio/economical status of respondents. A decision about including these covariates was made dependent upon the level of correlation with the dependent variable and intercorrelation with other covariates. The variables for number of children, acculturation, and income level were included as covariates in the APIM models based upon their correlation with the DV. Age and years of marriage and educational level were excluded because these variables were highly correlated and redundant with number of children, acculturation, and income level ($r > .50$).

Using APIM to Test Study Hypotheses

APIM analyses were conducted to model the effects of machismo (both husbands' and wives' perceptions of machismo) on MS. We initially conducted separate APIM analyses to test linear and quadratic (curvilinear) effects of machismo. In the first analysis, we examined the linear effects of machismo and in the second analysis the quadratic effects; quadratic effects were modeled by squaring the predictors (husbands' and wives' perceptions of machismo). We then ran subsequent APIM analyses controlling for covariates (acculturation, family income, and number of children). Further linear and quadratic analyses were conducted exploring positive and negative machismo as separate dimensions comparing individual contributions of husbands' and wives' perceptions of positive and negative machismo to each partner's MS. Lastly, we ran additional APIM analyses to examine the effects of high and low acculturation.

Results

Descriptive Statistics and Simple Correlations

As Table 1 shows, most of the participants were between 25 and 45 years old, with husbands being slightly older than wives (mean age for husbands was 38.29, $SD = 10.62$ and mean age for wives was 36.31, $SD = 10.09$, respectively). The average education for husbands (2.15, $SD = 1.08$) was slightly lower than the one reported by wives (2.22, $SD = 1.11$), representing academic achievement just above high school completion. A majority of the couples reported having completed primary (over 30%) or secondary school only (30%). However, more wives (28%) than husbands (21%) reported some college-level education.

In regards to socioeconomic status, most of the couples in this sample (68.9%) were low income with reported family incomes that were $< \$30,000$ a year. The average number of children was 2.99, with over half of the sample reporting two or more children. The mean acculturation score for husbands was 45.13 ($SD = 10.28$) and for wives was 44.38 ($SD = 9.7$). However, only eight wives and three husbands (4% of all respondents) completed the English version of the questionnaire, perhaps indicating lower acculturation levels for the overall sample (Deyo, Diehl, Hazuda, & Stern, 1985). Completion of questionnaires in Spanish over English could also be the result of strong ethnic identification with the Latino culture coupled with the writing and reading proficiency of participants. Couples in this sample were diverse in regard to the length of time being married to each other. The average length that couples reported being married to each other in years was 13.21 ($SD = 10.54$). A third (32.4%) were married less than 6 years and another third between 16 and 26 years.

Wives reported higher MS scores ($M = 35.19$) than husbands ($M = 31.33$), but husbands endorsed higher machismo beliefs ($M = 33.15$) than wives (mean machismo = 31.48). These

Table 1. Means and Standard Deviations of Demographic Measures and Standardized Scales

Demographic Variables	%	Husband M	SD	Wife M	SD	Sig. Diff.	Couple M	SD
Age		38.29	10.91	36.31	10.57	**		
25 or younger	5.6	14.4						
26 to 35	39.8	44.2						
36 to 45	35.2	24.3						
46 to 55	12.1	10.8						
56 and older	7.3	6.3						
Education		2.15	1.23	2.22	1.13			
0 to 5 years	36.4	33.0						
6 to 12 years	38.4	37.5						
13 to 14 years	21.4	28.5						
15 to 16 years	2.7	2.7						
Couple number of children							2.99	2.24
	25.9							
0 to 1	27.7							
2	12.5							
3	14.3							
4	13.4							
5 to 6	4.5							
7 to 8	0.9							
9 to 10	0.9							
10 or more								
Couple years of marriage							13.21	10.69
0 to 5	32.4							
6 to 10	18.1							
11 to 15	17.1							
16 to 20	5.4							
21 to 25	14.4							
26 to 30	6.3							
31 or more	6.3							
Family income							4.1	(2.21)
Below \$10,000	6.3							
\$11,000 to \$20,000	43.9							
\$21,000 to \$30,000	25							
\$31,000 to \$40,000	17.6							
\$41,000 to \$50,000	2.7							
\$51,000 or above	4.5							
Acculturation		45.13	10.28	44.38	9.94		10.18	8.68
Marital Satisfaction		31.33	3.34	35.19	5.82	**	33.31	3.98
Machismo (pos. + neg.)		33.15	5.25	31.48	6.44	***	33.24	4.39
Positive		11.95	3.11	11.30	2.46			
Negative		14.77	3.74	13.41	4.15			

Note. Sig. diff. = significant difference.

* $p < .05$. ** $p < .01$.

Table 2. Correlation Matrix for Partners' and Couples' Marital Satisfaction, Covariates, and Predictors

Variables	N	1	2	3	4	5	6	7	8	9	10	11	12
1. Tr.# of children	112	1											
2. Family income	112	.03	1										
3. H.acculturation	104	-.07	.29**	1									
4. W.acculturation	107	-.06	.34**	.47**	1								
5. Tr. H. Machismo	105	.14	.14	.02	.04	1							
6. W. Machismo	105	.12	.07	.07	.07	.12	1						
7. H. + Machismo	102	.03	.04	.04	.02	.65**	.12	1					
8. H. - Machismo	102	.20*	-.15	-.09	-.03	.81**	.13	.15	1				
9. We + Machismo	105	.04	.05	.08	.09	.04	.75**	.06	.03	1			
10. We -Machismo	105	.20*	-.16	-.17	-.18	.10	.82**	.06	.15	.29**	1		
11. Tr. H. MS	108	-.22*	.02	.23*	.21*	.20*	-.12	.12	.10	.00	-.18	1	
12. W. MS	112	-.19*	.13	.09	.19	.07	-.02	.09	-.01	.13	-.12	.50**	1

Note: H = husbands; W = wives; Tr. = Log Transformed; MS = Marital Satisfaction; -, negative; +, positive; We = wife's endorsed machismo.

* $p < .05$. ** $p < .01$.

differences were statistically significant for both MS ($t = 8.20, p < .001$) and machismo ($t = 2.02, p < .05$). On average, husbands endorsed slightly higher positive machismo than did wives ($M_s = 11.95, SD = 2.46$, and $11.56, SD = 2.68$, respectively) and also slightly higher negative machismo ($M = 14.78, SD = 3.79$). These differences were only statistically significant for negative machismo ($t = 2.79, p < .006$). Table 2 shows correlations between variables included in the prediction models. The correlation between husbands' machismo and husbands' MS was statistically significant ($r = .26, p < .01$). The correlation between machismo and MS for wives was not significant. Also worth noting are the positive correlation between husbands' MS and husbands' acculturation ($r = .23, p < .05$) and the positive correlation between husbands' and wives' levels of acculturation and family income ($r_s = .29$ and $.34$, respectively, $p_s < .01$). Therefore, as acculturation increases, MS increases for husbands. On the other hand, higher acculturation levels are associated with increased family income for both members of the couple. Not surprisingly, number of children was found to be negatively associated with MS for both partners ($r = -.19, p < .05$, for husbands; $r = -.22, p < .05$, for wives). Having children has been consistently associated with decline in MS, especially during the early and middle parental years (Van Laningham, Johnson, & Amato, 2001), although this effect varies across cultures (Wendorf, Lucas, Imamoglu, Weisfeld, & Weisfeld, 2010).

Hypothesis Tests

Hypothesis 1 predicted a curvilinear relationship between machismo (IV) and MS (DV). Shown in Table 3 are the results of APIM analyses testing the linear and quadratic actor and partner effects of machismo on MS. Results supported Hypothesis 1 only for husbands, with significant linear and quadratic effects of husbands' own machismo being positively associated with their own MS (actor effects). We found no evidence for partner effects of husbands' machismo on their wives' MS, nor did we find any evidence for actor or partner effects of wives' perceptions of machismo on MS.

We next tested whether the linear and quadratic effects of men's machismo on their own MS held when controlling for number of children, family income, and husbands' acculturation.

Table 3. Actor-Partner Interdependence Model (APIM) of Machismo Predicting Marital Satisfaction

Variable	Husband's Marital Satisfaction	Wife's Marital Satisfaction
Linear effects of machismo		
Husband's machismo	.26**	.07
Wife's endorsement of machismo	-.14	-.02
Quadratic effects of machismo		
Husband's perception of own machismo ²	.25**	.07
Wife's endorsement of machismo ²	-.15	-.01

Note: Actor-Partner Interdependence Model (APIM) analyses of associations between machismo and relationship satisfaction were conducted using Structural Equation Modeling. Standardized betas (β) from APIM analyses are reported. ** $p < .01$.



Figure 2. Scatterplot Depicting the Association Between Husbands' Overall Machismo (Total of Positive and Negative Machismo) and Their Own Marital Satisfaction

APIM analyses showed that these effects held and were in fact strengthened when controlling for the covariates (β s of .28 and .28 for men's linear and quadratic actor effects of machismo, respectively, $ps < .005$).

Are the linear and quadratic effects of husbands' endorsement of machismo on their own MS incremental? In other words, are these effects significant and independent of one another when included together in an APIM analysis? Our results suggest not: neither the linear nor quadratic effect of machismo on husbands' MS remained significant when included together in the same model. The linear and curvilinear associations between husbands' machismo and MS are depicted in the scatter plot shown in Figure 2.

Interestingly, however, the effects of overall machismo on husbands' MS did vary as a function of acculturation level. To explore this idea, we conducted a median split of our sample on acculturation (averaged across the two members of each couple) and stratified our sample into low acculturation ($n = 51$ couples) and high acculturation ($n = 52$ couples). We then entered the linear and quadratic machismo predictors together and conducted separate APIM analyses for low- and high-acculturated couples. The results of these analyses showed that among low-acculturated couples, husbands' own machismo was positively associated with their own MS, with both a positive linear effect ($b = 5.13$, $SE = 2.54$, $p = .043$) and a trend of a negative quadratic effect ($b = -1.61$, $SE = 0.84$, $p = .055$), suggesting that, among low-acculturated couples, husbands' MS levels are highest when they report moderate levels of machismo. However, among high-acculturated couples, husbands' own machismo was unrelated to their own MS (linear $b = 0.77$, $SE = 2.94$, $p = .80$; quadratic $b = -0.23$, $SE = 0.98$, $p = .81$). Thus, these findings indicate unique linear and quadratic effects of husbands' own machismo on their own MS among those couples low in acculturation but not high in acculturation.

Hypothesis 2 predicted that the positive "gentlemanly" aspects of machismo would be positively associated with MS (Hypothesis 2a), whereas the negative, domineering aspects of machismo would be negatively associated with MS (Hypothesis 2b). We tested these hypotheses in two separate APIM analyses investigating the linear and quadratic effects of positive and negative machismo. In each of these analyses, husbands' and wives' perceptions of husbands' positive and negative machismo were simultaneously included as predictors.

As shown in Table 4, while there was a trend toward statistical significance for the linear effect of husbands' own positive machismo being positively associated with their own MS (an actor effect), in a similar way, there was a trend toward significant linear effect of wives' perceptions of positive machismo being positively associated with their own MS. Moreover, there was a statistically significant quadratic effect of wives' endorsement of positive machismo being positively associated with their own MS. We next tested whether the linear and quadratic effects of positive machismo were incremental. In support of Hypothesis 2a, the results of an APIM analysis including both linear and quadratic positive machismo revealed a significantly positive linear actor effect of husband's own positive machismo on their own MS ($b = 1.03$, $SE = .45$, $p = .021$) and a significantly negative quadratic actor effect of husband's own positive machismo on their own MS ($b = -0.47$, $SE = 0.22$, $p = .033$); this suggests that moderate levels of positive machismo lead to highest levels of MS for Mexican American husbands. Among wives, there was a significantly positive quadratic actor effect of their endorsing positive machismo and their own MS ($b = 0.09$, $SE = 0.04$, $p = .024$), indicating that high levels of positive machismo are associated with high levels of MS for Mexican American wives. Thus, in support of Hypothesis 2a, positive machismo is positively associated with MS for wives: the more that wives endorse positive machismo, the happier those women generally are in their marriage. For illustrative purposes, we depict this effect for wives in Figure 3.

With regard to the effects of negative machismo, the results displayed in Table 4 show significant linear and quadratic partner effects of wives' perceptions of negative machismo being negatively associated with their husbands' MS. In support of Hypothesis 2b, this indicates that the more that wives' endorsed negative machismo, the less satisfied husbands reported being in their marriage. There were no other significant actor or partner effects of negative machismo on MS, nor were there any significant effects of negative machismo when simultaneously including both linear and quadratic terms together in an APIM analysis.

As with our analyses with overall machismo, we similarly investigated whether the links between positive and negative machismo and MS vary as a function of acculturation level. To do this, we conducted separate APIM analyses for positive and negative machismo—including both linear and quadratic terms—stratifying the sample by low-acculturated and high-acculturated

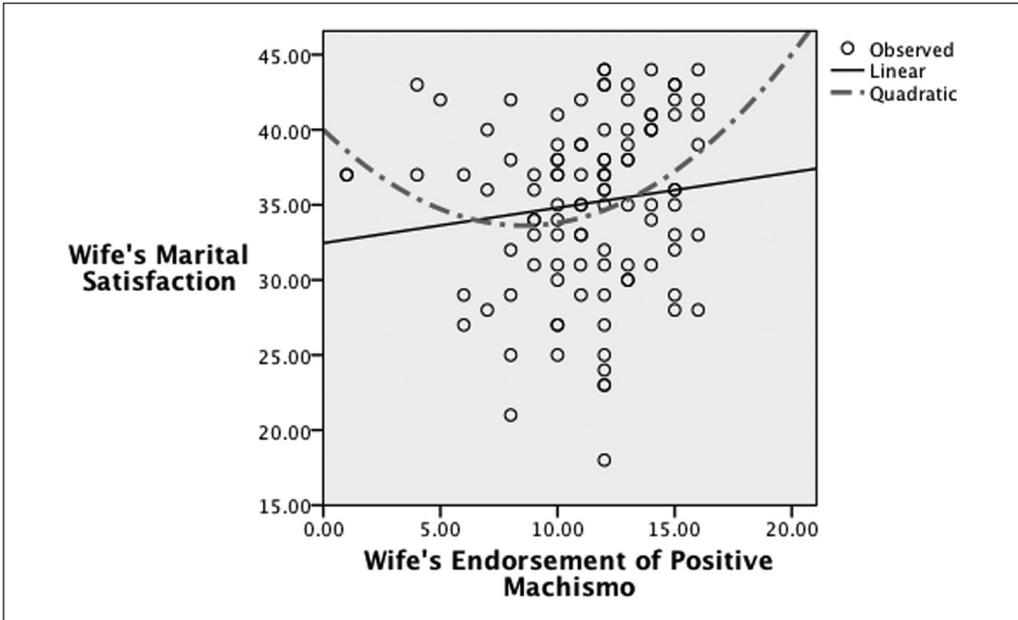


Figure 3. Scatterplot Depicting the Positive Association Between Wives' Endorsement of Positive Machismo and Their Own Marital Satisfaction

Table 4. Actor-Partner Interdependence Model (APIM) of Positive and Negative Machismo Predicting Marital Satisfaction

Variable	Husband's Marital Satisfaction	Wife's Marital Satisfaction
Linear effects of positive and negative machismo		
Husband's positive machismo	.18 [†]	.09
Wife's endorsement of positive machismo	.05	.18 [†]
Husband's negative machismo	.11	-.02
Wife's endorsement of negative machismo	-.22*	-.18 [†]
Quadratic effects of positive and negative machismo		
Husband's positive machismo ²	.15	.08
Wife's endorsement of positive machismo ²	.08	.21*
Husband's negative machismo ²	.12	-.01
Wife's endorsement of negative machismo ²	-.22*	-.17

Note: Actor-Partner Interdependence Model (APIM) analyses of associations between machismo and relationship satisfaction were conducted using Structural Equation Modeling. Standardized betas (β) from APIM analyses are reported. * $p < .05$. [†] $p < .08$.

couples. The results of these analyses showed that among low-accultured couples, husbands' positive machismo was positively associated with their own MS, with both a positive linear effect ($b = 1.09, SE = 0.53, p = .039$) and a trend of a negative quadratic effect of husbands' positive machismo on their own MS ($b = -0.51, SE = 0.27, p = .057$). However, among high-accultured couples, husbands' positive machismo was unrelated to their own MS (linear $b = 1.23, SE = 1.05, p = .24$; quadratic $b = -0.56, SE = 0.51, p = .27$). Interestingly, among women, we

found the opposite pattern. Among low-aculturated couples, wives' endorsement of positive machismo was unrelated to their own MS (linear $b = -1.21$, $SE = 1.53$, $p = .43$; quadratic $b = 0.07$, $SE = 0.08$, $p = .40$). But among high-aculturated couples, wives' endorsement of positive machismo was positively associated with their own MS in the form of a quadratic effect ($b = 0.10$, $SE = 0.05$, $p = .043$); the linear effect was not significant ($b = -1.67$, $SE = 1.05$, $p = .11$). For negative machismo, we found no significant actor or partner effects for men and women when stratifying the sample by acculturation level.

Discussion

Results indicated significant linear and quadratic relationships between overall machismo and MS in husbands, but not wives, explaining about 17% of the variability in husbands' MS. Nonetheless, these results must be interpreted with caution because the independent incremental effects of the curvilinear equation did not remain significant when modeled together into the linear equation. If machismo, in optimal levels of combined positive and negative dimension, has some value for husbands' relational experience, traditional notions of machismo as fundamentally pathological are called into question (Goldwert, 1985; Stevens, 1973). Our results suggest that extreme machismo—such as a stern expression and endorsement of beliefs about dominance and control or lack of optimal emotional availability and protectiveness in the relationship—hinders MS for husbands. This finding points to how extreme machismo affects men individually and further challenges recent research where endorsement of negative machismo was not seen as dissatisfying for men (Arciniega et al., 2008). On the other hand, how increased dominance and overprotection may be important to husbands while at the same time hindering how satisfied wives feel in the relationship could point to a potential gender role conflict specific to Mexican American men (O'Neil, 2008). In this regard, Cervantes et al. (2006) proposed that machismo is an emotional expression of men caught up between social and cultural expectations that conflict in regards to what is appropriate masculine behavior.

When taking acculturation levels into account, the positive association between husbands' overall machismo and MS was strong among couples low in acculturation but not among those high in acculturation. This suggests that overall machismo is particularly important to low-aculturated Mexican American husbands, perhaps because their values and beliefs about their role are more congruent with what is socially and culturally expected.

In regard to the specific dyadic effects of positive and negative machismo, the results of an APIM analysis including both linear and quadratic positive machismo revealed a significantly positive linear actor effect of husbands' own positive machismo on their own MS and a significantly negative quadratic actor effect of husbands' own positive machismo on their own MS; this indicates that Mexican American men reporting moderate levels of positive machismo—the belief in being a “gentleman” in the true Latin sense of the word (“caballero”)—are more likely to report greater marital satisfaction. Among wives, there was a significant curvilinear actor effect of wives' endorsed machismo positively impacting their own satisfaction; this quadratic effect points to optimal endorsement of positive machismo being a key factor—especially for wives—in experiencing satisfaction in one's marital relationship. These findings are consistent with research that has shown gentleness and kindness to be important predictors of marital satisfaction as well as traits women find desirable. Other research has found these traits are also important to men's individual well-being. For example, Arciniega et al. (2008) found that Mexican American men with a positive male image consistent with caballerismo were more in touch with their feelings, more capable of empathizing with others, and endorsed higher life satisfaction than men who endorsed traditional machismo beliefs. The effects of positive machismo on MS could also be important to sustaining family cohesion, which is a central value

in the Latino culture and implies respect between family members and a capacity to make family the number one priority (Sabogal, Marin, Otero-Sabogal, & Marin, 1987).

In regard to the dyadic effects of negative machismo, results indicated significant linear and quadratic partner effects for wives' endorsement of negative machismo being negatively associated with their husbands' MS, such that increased dominance and influence during important decision making in the relationship is associated with lower MS. In Mexican Americans, this may be symbolized by the cultural expression "being 'macho'" (in reference to being tough, sticking to his word, being decisive, etc.) but not a "machista" (not controlling or domineering). Our analyses indicated that wives' perceptions of husbands' machismo is what matters most in terms of the effects of negative machismo on marital satisfaction. That is, her views of negative machismo may be the driver of their love (MS) for each other. This finding could point to the importance of carefully assessing a Latin wife's perspective about her own and her husband's machismo attitudes and beliefs when clinical interventions are attempted. This is also important, given the possibility that negative machismo could also affect Latin couples' ability to share influence, which could predispose a couple to fighting and as a result make the potential escalating conflict challenging to manage. Research on the costs and benefits of hostile sexism (HS) and benevolent sexism (BS) has found that the resistance to share influence increases for both members of the couple when men endorse patriarchal attitudes (Overall, Sibley, & Tan, 2011).

The APIM analyses done here to examine acculturation effects found, perhaps surprisingly, no impact of negative machismo on marital satisfaction (MS). However, positive machismo did positively affect MS for husbands in low-acculturated couples and wives in high-acculturated couples. Positive machismo may be particularly important for each member of the couple at different stages of acculturation. On the other hand, in the extent to which overall machismo captures traditional attitudes in low-acculturated husbands, the findings seem to partially confirm previous studies where Mexican American couples who report adherence to traditional values and roles were found to report increased MS and adjustment (Garcia-Bravo, 2009; Morales, 1997).

It was not surprising that negative machismo and overall machismo scores were slightly higher for husbands than wives, as husbands in this study were asked to indicate endorsement of gender role expectations important to men socially and culturally. However, these husbands also endorsed higher positive machismo beliefs than wives, pointing to the importance of this dimension for Latino men as well.

The results of this study are an important contribution to ongoing cross-cultural research that attempts to understand the nature and predictors of MS. It is ironic that despite the centrality of family structure for U.S. Latinos, there is such a scarcity of research exploring Latin marriages and the contribution of marriage stability and cohesion to family well-being. These results contribute to ongoing Latino research that attempts to understand the nature, functionality, and processes related to machismo and challenges traditional and popular stereotypes about machismo equating pathological hypermasculine behavior. These findings suggest instead that extreme dominance and lack of gentlemanly traits reduce the satisfaction that husbands and wives experience in a relationship. If these findings are replicated, potential clinical interventions focusing on elimination of machismo would need to explore specific positive and negative beliefs about what it means to be a man while weighting their individual and relational benefits. It becomes necessary then to explore if certain positive or negative machismo characteristics are linearly related to MS.

There are certain limitations of this study that should be noted. While this study adjusted for income, acculturation, and number of children, demographic characteristics of the sample indicated that the majority of couples reported low socioeconomic status. This sample was not representative of the overall Mexican American population or U.S. Latinos, so generalization of findings to all Mexican Americans or Latinos is not possible.

Continued research is needed to further understand how positive and negative machismo relates to MS using a scale validated bi-dimensionally. It is also important to develop operational definitions of positive and negative dimensions capturing more broadly recent conceptualizations of machismo that allow for measurement along a continuum rather than opposite characteristics. Further validation of the Machismo Scale is needed in order to improve its validity and reliability indicators as well as to understand its statistical properties when used with mainstream Mexican and Latin couples. Future research needs to explore more broadly the relationship between machismo and other areas of the relationship, such as marital quality, dreams and aspirations, sexual jealousy, communication, intimacy, and shared influence in decision making. In addition, both positive and negative machismo beliefs and attitudes can be influenced not only by the couple's level of acculturation but also by ethnic identification, nativity, and socioemotional characteristics that influence gender role development and expectations.

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