

# Working Papers

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George Warren Brown School of Social Work

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**Abstract:** *Based on a secondary analysis of married female respondents (n=3191) to the National Survey of Families and Households, Wave II (NSFH2), this research explores the effects of economic factors and race on intimate partner violence and conflict. Findings from OLS and logistic regression analyses are presented, along with implications for social work practice.*

**Keywords:** partner violence & conflict, gender, secondary data analysis, financial stress, asset-holding, economic empowerment

Estimates from the National Crime Victimization Survey indicate that 691,710 violent crimes were committed against individuals by their intimate partners, including spouses, ex-spouses, boyfriend/girlfriends, and ex-boyfriends/girlfriends, in the United States in 2001 (Rennison, 2003). Eighty-five percent of these crimes, including murder, sexual assault, robbery, and aggravated or simple assault, were committed against women by their male partners. Furthermore, 33 percent of female and 4 percent of male murder victims were murdered by an intimate. While violence by an intimate may not be perceived as the norm, it is evident that violent behavior does occur in many intimate partnerships.

The National Violence Against Women Survey indicated that the reported rates of violence experienced by men and women not only are different, but these differences increase as the severity of assault increases (Tjaden & Thoennes, 2000). Whereas women are 2 to 3 times more likely than men to be pushed, grabbed or shoved by an intimate partner, they are 7 to 14 times more likely than men to report being beaten, choked, or threatened with a weapon. Moreover, while some studies conclude that men and women are equally likely to experience violence by intimates (see, for example, Schafer, Caetano, & Clark, 1998; Straus, 1997), most authorities agree that intimate partner violence is primarily a crime against women (Crowell & Burgess, 1996; Dobash & Dobash, 1992; Pryke & Thomas, 1998; Tjaden & Thoennes, 2000). Further, much of the violence perpetrated by women is in self defense (Barnett, Lee, & Thelen, 1997; Cascardi & Vivian, 1995; Dobash & Dobash, 1998) or in response to violence (Flynn, 1990), in direct contrast to males' use of violence to intimidate or control an intimate partner (Dutton & Starzomski, 1997).

Johnson (1995) makes a clear distinction between "common couple violence," described as isolated outbursts of violence that arise in response to occasional conflicts in daily life, and "patriarchal terrorism" (p.286). Men and women may use common couple violence equally in a given situation, but there is no attempt to establish control of the relationship. In contrast, patriarchal terrorism is defined as violence that is used as a "form of terroristic control of wives by their husbands that involves the systematic use of not only violence, but economic subordination, threats, isolation, and other control tactics" as well (Johnson, 1995, p.284). This analysis is limited to an exploration of the former.

Estimates from national surveys indicate that African American women (Rennison & Welchans, 2000) and American Indian women (Tjaden & Thoennes, 2000) experience significantly more intimate partner violence than other groups. National data also indicate that, while white, non-Hispanic and Hispanic women report similar rates of physical assault and stalking, Hispanic women report a higher incidence of rape by intimate partners (Rennison & Welchans, 2000). An exploration of the factors that contribute both to the experience and the report of this type of violence is lacking. Thus, while there is a demonstrated relationship between race and intimate violence, the exact nature of this relationship is still to be determined (Hampton, Carrillo, & Kim, 1998). Furthermore, researchers who choose to control variance by using homogeneous samples, effectively remove race and ethnicity from the discussion.

## Purpose and Key Questions

While a number of research studies have assessed the impact of socioeconomic status, education, and household income on intimate violence or conflict, few researchers have addressed the effects of other economic factors in relation to these issues (Campbell, Miller, Cardwell, & Belknap, 1994; Page-Adams, 1995). The current research addresses economic factors such as financial stress and asset holding in relation to intimate partner violence and conflict. Built upon an integrated theoretical framework of intimate partner violence, this work draws upon assets theory and general systems theories, with a specific focus on gender.

*The role of tangible assets.* Assets are defined in terms of savings or capital which has the ability to generate future flows of income (Sherraden, 1991). Economic or tangible assets may include savings, checking, and other interest-bearing accounts, and real property such as a house or land. A number of studies have noted the positive effects of asset holding on improved social status for women and lowered economic strain (Green & White, 1994; Page-Adams & Vosler, 1997). In addition to these positive effects, homeownership may also be associated with decreased marital violence (Page-Adams, 1995; Page-Adams & Sherraden, 1996). In a special report for the United States Bureau of Justice Statistics, Rennison and Welchans (2000) state that women living in rental housing experience intimate partner violence at more than 3 times the rate of women residing in an owned home. The presence of assets may also provide a protective factor from economic and marital stress or abuse during times of income shortfall (Sherraden, 1991).

*Financial stress.* Conger, Reuter, and Elder (1999) define financial stress as “a situation in which a family’s economic resources do not meet its basic material needs or financial obligations” (p.54). Using a general systems approach, Straus (1990) states that violence within the family occurs in major part as a response to the high levels of stress and conflict characteristic of families. This stress is caused by a number of social structural factors such as unemployment, financial difficulty, poor work conditions, and health problems (Kurz, 1993). While the presence of either conflict or hostility does not automatically result in violence, studies indicate a strong relationship between economic and occupational stress, such as unemployment, poverty, the combination of paid and family work, and violence between intimate partners (Cascardi & Vivian, 1995; Hampton & Gelles, 1994; Vosler, 1996).

Margolin, John, and Foo (1998) found that men’s unemployment or partial employment was a significant predictor of overall abusiveness toward a female partner. While other researchers have also found a strong relationship between male unemployment and intimate partner violence (Hampton & Gelles, 1994; Kantor, Jasinski, & Aldarondo, 1994), women’s employment variables may also play a role in family conflict. In a random sample of 366 households in the southeast, Fox and Chancey (1998) found that, for men, their spouse’s job instability (including unemployment, a history of job layoffs, or forced retirement) and job insecurity increased family conflict, including physical violence, while the men’s own employment variables did not. For women, both their own and their partner’s job instability and insecurity increased family conflict.

The key questions addressed in this research include: Does the presence of tangible assets (e.g., homeownership or savings) decrease interpersonal conflict or violence within intimate

relationships? What is the effect of financial stress on conflict and violence within intimate relationships? How do these relationships differ across racial groups?

## Research Methodology

Many studies addressing intimate partner violence utilize small and/or convenience samples, particularly drawing on women utilizing services in clinic settings, or crisis shelters (Cascardi & Vivian, 1995; Forte, Franks, Forte, & Rigsby, 1996). The current study utilized an analysis of survey data from a national probability sample, thus avoiding the measurement problems inherent in a small or convenience sample, including a lack of control/comparison groups and weak instrumentation (Crowell & Burgess, 1996; Smith, Smith, & Earp, 1999).

## Description of Data Set and Sample

The data used in this analysis were a sub-sample of female respondents (n=3191) to the National Survey of Families and Households, Wave II (NSFH2). Preliminary analysis indicated significant demographic differences between married and cohabitating respondents, thus only married women were included in the current study. Descriptive statistics of the study sample are shown in Table 1 (below). The NSFH2 is a panel study of a national stratified, multistage area probability sample of the noninstitutionalized population aged 19 and older or married (Bumpass & Sweet, 1996). Conducted from 1992 through August 1994, the NSFH2 includes data from self-administered surveys and in-person interviews with 10,007 original respondents in addition to current and ex-spouse/partner interviews. In addition to extensive demographic information, the NSFH2 provides measures on family composition, economic well-being, intimate partner violence and conflict, asset holding, and economic stress.

**Table 1. Descriptive Statistics of Married Female Respondents (n=3191)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>	<b>Mean</b>	<b>Median</b>	<b>Empirical Range</b>
<b>Race (n=3187)</b>					
Black/African American	311	9.76			
White, non- Hispanic	2629	82.49			
Other Races	247	7.75			
<b>Employment (n=3064)</b>					
Employed	1896	61.88			
Not employed	1168	38.12			
<b>Education (n=3182)</b>					
Less than high school	422	13.26			
High school degree	1322	41.53			
More than high school	1439	45.21			
<b>Age (n=3190)</b>			44.5	41.0	23-88
<b>Total Income (n=3161)</b>			\$52,187	\$45,000	\$0-521,200

## Study Measures

*Dependent variables.* Physical violence was indicated by the response to the question: “When you have a serious disagreement with your partner, how often do you end up hitting or throwing things at each other?” Due to limited variance in responses this variable was dichotomized, with any incidence of physical violence coded as 1 and no violence coded as 0. Interpersonal conflict was a composite index consisting of five items indicating the level of open disagreement experienced with an intimate partner. Factor loadings for this constructed measure ranged from 0.451 to 0.735. The questions included in this index, originally measured on a 5-point Likert scale ranging from 1 (never) to 5 (almost all of the time), were: 1) “When you have a serious disagreement with your partner, how often do you argue heatedly or shout at each other?” and “How often, if at all, in the past year have you had open disagreements about: 2) money? 3) household tasks? 4) the children? 5) spending time together?” This index was coded so that high values indicated a high level of interpersonal conflict and low values indicated little or no conflict.

*Independent variables.* Family income was a constructed variable consisting of the sum of the couple’s best income measures (including all wages and self-employment income). The “best income” measure was a record created from a comparison of respondent and partner reports that more accurately reflected the couple’s joint income. It was hypothesized that income was negatively related to both intimate partner conflict and violence.

Two measures of tangible assets were included in this analysis. Homeownership was a dichotomous variable measured by the question: “Do you (or your husband) own your own home or are you renting?” The original responses for this variable were collapsed into ‘owns home’ and ‘does not own home.’ Savings income was measured by the response to the following question: “What is the approximate total value of your (and your husband’s) savings, including savings accounts, savings bonds, IRAs, money market funds, and CDs?” Responses ranged from 0 (none) to 8 (\$100,000 or more). It was hypothesized that the presence of savings income was negatively related to conflict and violence between intimate partners. It was further hypothesized that homeowners experience less intimate partner conflict and violence than non-homeowners.

Two factors served as indicators of financial stress for this analysis. Perceived economic stress was the sum of responses to two questions: “How often do you worry that family income will not be enough,” and “Overall, how satisfied are you with your financial situation?” The response scale for the first question was reverse scored so that 1 equaled never and 5 equaled almost all of the time. Responses for the second measure were collapsed and reverse scored so that 5 indicated very dissatisfied and 1 indicates very satisfied. Factor loadings from a confirmatory factor analysis (0.842 and 0.663 respectively) were satisfactory. The second measure of financial stress included in this analysis was the question: “How happy are you with the way your spouse spends money?” Responses for this measure ranged from 1 (very happy) to 5 (very unhappy). It was hypothesized that women with higher levels of perceived economic stress and more unhappiness with a partner’s spending would report higher levels of intimate partner violence and conflict.

*Control variables.* This analysis controlled for race, age, and level of completed education. Race was a polychotomous variable, collapsed from the original, indicating whether the respondent was African American, White, or some other race (including Hispanic/Asian/ American Indian).

## **Findings and Discussion**

It is important to note that study respondents reporting physical violence in an intimate relationship differ significantly from respondents reporting no violence on a number of demographic measures. Similar to other research (see, for example, Browne, 1997; Rennison & Welchans, 2000; Tjaden & Thoennes, 2000), women who reported violence were significantly more likely to be younger (Mean age=36 years vs. 44 years) ( $t=13.38$ ,  $p<0.001$ ); to have lower levels of education (12.45 years vs. 12.92 years) ( $t=2.80$ ,  $p<0.001$ ); and to have lower family incomes (\$44,687 vs. \$52,976) ( $t=2.81$ ,  $p<0.001$ ) than women reporting no violence. Further, larger percentages of African American women (9.54 percent) and women of other races (14.11percent) than white, non-Hispanic women (7.04 percent) reported intimate partner violence than expected ( $\chi^2$  with  $2df=17.34$ ;  $p<0.001$ ). One case was deleted after careful examination of the data indicated an obvious data entry error. Preliminary analysis indicated no pattern to missing data, thus missing cases were simply omitted.

### **Interpersonal Conflict as the Dependent Variable**

After determination that the assumptions for OLS regression were met, the weighted independent variables hypothesized to affect interpersonal conflict were regressed hierarchically on that construct. In order to adjust for the over-samples of minorities and recently married persons, NSFH2 person weights were utilized. Hierarchical regression analysis allows the researcher to determine the effect of a block of variables on the  $R^2$ , rather than focusing on individual variable contributions (Pedhazur, 1997). In order to test the significance of the increment to the proportion of variance accounted for by each block of variables, the following formula is used:  $F = \frac{(R^2_{y.12...k1} - R^2_{y.12...k2}) / (k1 - k2)}{(1 - R^2_{y.12...k1}) / (N - k1 - 1)}$  (Pedhazur, 1997, p.108).

The first analysis examined the effects of the weighted study variables on the overall sub-sample. As shown in Table 2 (below), race, age and education were entered into the regression first and accounted for 12 percent of the variance in interpersonal conflict [ $F(4,2559)=89.93$ ,  $p<0.0001$ ]. There was a significant difference between African American and white women's experiences of interpersonal conflict ( $b=1.11$ ,  $F=13.50$ ,  $p<0.001$ ), with reported mean levels of interpersonal conflict 1.11 points higher for African American women. The next block entered was the income measure, which served primarily as a foundation for the blocks of economic variables to follow, and did not add to the variance explained.

The third block, tangible assets, may rely in part upon income and personal resources as measured in the preceding variable blocks. Thus, it is important to test the effects of these variables while controlling for household-level income and education. Tangible assets contributed to a statistically significant change in the  $R^2$ , accounting for two percent more variance. In this model, the savings measure is significantly and negatively associated with interpersonal conflict ( $b=-0.17$ ,  $F=22.61$ ,  $p<0.0001$ ), indicating that as savings increase, conflict decreases. Moreover, both African American women ( $b=0.93$ ,  $F=21.20$ ,  $p<0.0001$ ) and women



of other races ( $b=0.62$ ,  $F=15.53$ ,  $p<0.0001$ ) experienced more interpersonal conflict than white women.

The final block, financial stress, was entered last in order to assess the emotional effect of stress beyond actual need or availability of economic resources. When these measures were added to the regression analysis, there was a significant ( $p<0.001$ ) and substantive change in the effect size, so that the variance in interpersonal conflict explained by the model increased from 14 to 29 percent [ $F(8,2186)=110.93$ ,  $p<0.0001$ ]. Further, significant, positive relationships between interpersonal conflict and both measures of financial stress were indicated [ $F(9,2179)=98.92$ ,  $p<0.0001$ ].

In the fifth model, with the income measure omitted, the tangible assets and financial stress measures still explained 29 percent of the variance in this model [ $F(8,2186)=110.93$ ,  $p<0.0001$ ]. In the sixth model, the financial stress measures (along with the control variables) explained 28 percent of the variance in interpersonal conflict [ $F(6,2482)=161.96$ ,  $p<0.0001$ ], underscoring the importance of this measurement block. Parameter estimates, standardized estimates, and significance levels for each model are shown in Table 2.

**Table 2. Hierarchical Regression of Conflict on IVs-b( $\beta$ )**

<b>Block/Variables Entered</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>	<b>Model 6</b>
	N=2563	N=2548	N=2553	N=2188	N=2194	N=2488
<b>1) Controls</b>						
African American <sup>1</sup>	1.11*** (0.07)	1.06*** (0.07)	0.93*** (0.05)	0.72* (0.05)	0.72* (0.05)	0.61* (0.04)
Other race <sup>1</sup>	0.50 (0.03)	0.37 (0.03)	0.62*** (0.04)	0.62** (0.04)	0.63* (0.04)	0.42 (0.03)
Age	-0.10*** (-0.34)	-0.10*** (-0.34)	-0.09*** (-0.30)	-0.09*** (-0.28)	-0.08*** (-0.28)	-0.08*** (-0.27)
Education	-0.01 (-0.01)	0.01 (0.004)	0.05 (0.03)	0.06 (0.04)	0.07* (0.05)	0.07** (0.05)
<b>2) Income</b>						
Couple's best income		-0.26e-5 (-0.03)	0.84e-6 (0.009)	0.30e-5 (0.04)		
<b>3) Econ. Assets</b>						
Homeownership			-0.35 (-0.03)	0.01 (0.001)	0.06 (0.01)	
Savings			-0.17*** (-0.12)	0.01 (0.01)	0.03 (0.02)	
<b>4) Financial Stress</b>						
Perceived stress				0.43*** (0.24)	0.42*** (0.24)	0.37*** (0.21)
Partner's spending				0.80*** (0.27)	0.81 (0.27)	0.86*** (0.29)
<b>R<sup>2</sup></b>	<b>0.12</b>	<b>0.12</b>	<b>0.14*</b>	<b>0.29**</b>	<b>0.29</b>	<b>0.28</b>
<b>Constant</b>	14.90***	14.89***	14.59***	9.27***	9.28***	9.36***

<sup>1</sup> White is the reference category. \*  $p<0.05$  \*\*  $p<0.01$  \*\*\*  $p<0.001$

### **Interpersonal Conflict - Comparison by Race**

As noted earlier, African American women and women of other races were more likely than white women to report physical violence in intimate relationships ( $\chi^2=17.37$ ,  $p<0.001$ ). Results of the full model also indicated that African American women reported higher mean levels of conflict than do white women (see above). Similarly, mean levels of perceived financial stress differed by race [ $F(2, 3319)=19.79$ ,  $p<0.0001$ ] with African American women (Mean=6.08), women of other races (Mean=5.74), and white women (Mean=5.33) all reporting significantly different levels of stress. For these reasons, the models presented in this research are also tested by race.

For each of the marital subsets by race, the addition of the financial stress block of variables led to a significant change in the variance explained (see Table 3). For white, non-Hispanic women, addition of the tangible assets ( $p<0.01$ ) block also resulted in a significant change in the  $R^2$ . In the fourth model for the subset of white women, three variables were shown to have a significant relationship to interpersonal conflict: Age ( $b=-0.09$ ,  $F=191.15$ ,  $p<0.0001$ ), perceived financial stress ( $b=0.40$ ,  $F=100.02$ ,  $p<0.0001$ ), and the spending measure ( $b=0.83$ ,  $F=189.53$ ,  $p<0.0001$ ). Each of these relationships occurred in the expected direction. Level of education was moderately associated with interpersonal conflict ( $b=0.07$ ,  $F=3.70$ ,  $p=0.055$ ), indicating that conflict increases as level of education increases. For white women, 29 percent of the variance in interpersonal conflict was explained by the control variables, age and education, and the financial stress variables [ $F(4,2068)=208.63$ ,  $p<0.0001$ ).

For African American women, only the inclusion of the financial stress block of measures resulted in a significant change in effect size. In this full model, three variables were significant [ $F(7,198)=7.74$ ,  $p<0.0001$ ]. Age ( $F=11.40$ ,  $p<0.001$ ), perceived financial stress ( $F=11.65$ ,  $p<0.001$ ), and the spending measure ( $F=6.60$ ,  $p<0.05$ ) were significantly associated with interpersonal conflict in the hypothesized directions. For African American women, 22 percent of the variance in interpersonal conflict was explained by the control variables, age and education, and the financial stress variables [ $F(4,230)=16.05$ ,  $p<0.0001$ ).

Finally, for women of other races, again the inclusion of the financial stress block resulted in a significant change in effect size. In contrast to the other sub-groups, a significant association between age and interpersonal conflict was not indicated. Both the perceived financial stress ( $F=12.74$ ,  $p<0.001$ ) and the spending measures [ $F=8.33$ ,  $p<0.01$ ] were significantly and positively associated with conflict. In this sub-group only, income was moderately related to interpersonal conflict as well ( $F=3.52$ ,  $p=0.06$ ). For women of other races, 22 percent of the variance in interpersonal conflict was explained by age, education, and financial stress [ $F(4,176)=12.88$ ,  $p<0.0001$ ).

**Table 3. Incremental Change in R<sup>2</sup> for Interpersonal Conflict (Married by Race)**

Block/Variables Entered	White, non Hispanic		African American		Other Races	
	$\Delta R^2$	F(df)	$\Delta R^2$	F(df)	$\Delta R^2$	F(df)
<b>Block 1: Age &amp; education</b>	0.12	147.57*** (2, 2130)	0.09	11.69*** (2, 238)	0.07	7.36** (2, 187)
<b>Block 2: Income</b>	0.00	99.31*** (3, 2121)	0.01	8.56*** (3, 235)	0.00	4.42** (3, 181)
<b>Block 3: Economic Assets</b>	0.03	63.68*** (5, 1875)	0.00	4.31** (5, 205)	0.01	2.84* (5, 156)
<b>Block 4: Financial Stress</b>	0.15	111.94*** (7, 1822)	0.11	7.74*** (7, 205)	0.14**	5.87*** (7, 145)

\* p<0.05      \*\* p<0.01      \*\*\* p<0.001

**Multivariate Analysis of Physical Violence**

The analysis of physical violence in an intimate relationship utilized logistic regression, which is designed for use with a dichotomous dependent variable. In this analysis, the dependent variable had less than the 90-10 split recommended for logistic regression estimates (Morrow-Howell & Proctor, 1992). However, when results from the full subset were compared with a smaller, matched sample drawn in order to obtain a better distribution, results were consistent between subsets. Therefore, the complete sample was retained for this analysis.

**Table 4. Odds Ratio Estimates for Physical Violence for the Full Married Subset (n=2609)**

Variable	b	Wald Chi-Square	Odds Ratio
<b>African American<sup>1</sup></b>	-0.1052	0.1117	0.90
<b>Other races</b>	0.4081	2.4482	1.50
<b>Age</b>	-0.0568	41.5905***	0.95
<b>Education</b>	-0.0253	0.4602	0.98
<b>Income</b>	-1.43E-6	0.2228	1.00
<b>Homeownership</b>	0.1993	0.9419	1.22
<b>Assets</b>	-0.0844	3.7987	0.92
<b>Perceived stress</b>	0.0974	5.2863*	1.10
<b>Spending</b>	0.3912	47.4415***	1.48

<sup>1</sup> White is the reference group. Model  $\chi^2 = 177.86$ ;  $df=9$ ;  $p<0.0001$  \* p<0.05 \*\*p<0.01 \*\*\*p<0.001

For this analysis, the weighted variables were entered into the logistic regression model in the same order as earlier analyses. The odds ratio estimates for physical violence are shown in Table 4. Of the control variables, only age had a significant relationship with physical violence ( $p<0.0001$ ). The savings variable was moderately significant ( $p=0.0513$ ), suggesting that the odds of violence in a relationship decrease as levels of savings increase. Both financial stress measures had positive, significant relationships with physical violence, indicating that the odds of intimate partner violence increase as women’s perceived stress increases ( $p<0.05$ ), and as women’s dissatisfaction with their partners spending habits increases ( $p<0.0001$ ).

Results for the subsample of white, non-Hispanic women (n=2188) were very similar to the full sub-sample. The Likelihood Ratio chi-square indicated a good model fit ( $\chi^2 = 155.70$ ;  $df=7$ ;  $p<0.0001$ ). Again, the odds of intimate partner violence (Odds ratio=0.94) in a relationship decrease as a woman's age increases ( $b= -0.0661$ ,  $\chi^2 = 40.47$ ,  $p<0.0001$ ). Education ( $b=-0.0934$ ,  $\chi^2=3.41$ ,  $p=0.06$ ) had a moderately significant relationship with violence, indicating that the odds of physical violence decrease with increased level of education (Odds ratio=0.91). The financial stress measures, perceived stress ( $b=0.1355$ ,  $\chi^2=7.90$ ,  $p<0.01$ ) and happiness with partner's spending ( $b=0.3916$ ,  $\chi^2=36.20$ ,  $p<0.0001$ ), were also significant. As a woman's level of perceived stress increases one point, the odds of physical violence in the relationship increase by 15 percent. Furthermore, for each unit increase in a women's level of unhappiness over her partners' spending, the odds of violence between intimate partners increased by almost 50 percent (Odds ratio=1.48). The model was not significant for either African American women or women of other races, indicating poor model fit for these subsets.

### **Limitations of this Study**

There are several potential sources of measurement error and bias in this data. As with many sensitive topics, the true rates of conflict or violence within an intimate relationship are almost certainly higher than the reported rates. People who are abused often feel a sense of shame or embarrassment about their situation (Gerbert et al., 1996; Loring & Smith, 1994). This, coupled with a fear of further or increased abuse, may prevent one from disclosing marital conflict. With face-to-face interviews, both response bias and social desirability may also be problematic. The cross-sectional design of this study is also a limitation in that no long-term effects of assets or other constructs can be assessed.

The limited range of the questions regarding physical violence restricts the current analysis to use of a dichotomous dependent variable, and thus does not allow for an in-depth investigation of the context within which the violence occurs. The data is further limited to heterosexual couples. This study relied only upon women's reports of violence and conflict, which presents the possibility of bias. A further limitation is the need to include both individual and household level data (e.g., tangible assets and homeownership) in this analysis. Furthermore, even with an oversample of minorities, sample size greatly decreased when respondents were broken into subsets by race, so that respondents who identified as Hispanic, Asian, American Indian, or other races were grouped together. For this reason, it is certain that important information on the effects of race will be missed.

### **Conclusion**

In much of the available literature, it is acknowledged that many women are trapped in violent relationships by a lack of economic resources; however, this does not mean that only low-income women are at risk of intimate partner violence. Although many studies cite income as a primary predictor of intimate partner violence, these results suggest that, while it is important to control for income, factors such as tangible asset-holding and financial stress should also be considered. These results suggest that theoretical models that rely upon income as the primary economic predictor of intimate partner violence may be incomplete.

The inclusion of tangible assets in the interpersonal conflict model results in a statistically significant change in the  $R^2$ , accounting for 2 percent of the variance in the model. In the analyses of the full sub-sample, the savings variable shows a significant, negative relationship with interpersonal conflict and a moderately significant, negative relationship with physical violence. These results suggest that savings may indeed serve as a buffer to intimate partner conflict and violence. In order to gain a better understanding of the role of tangible assets in these issues, it would be useful to know each partner's contribution to asset accumulation.

The most powerful predictor of interpersonal conflict in this analysis is financial stress, which contributes a 15 percent increase to the variance explained in interpersonal conflict. Analyses by race indicate that this finding is consistent across races, with financial stress contributing significantly to the variance explained for white, married women ( $\Delta R=0.15$ ), African American married women ( $\Delta R=0.12$ ), and married women of other races ( $\Delta R=0.14$ ). In every analysis, there is a significant, positive relationship between interpersonal conflict and financial stress. Financial stress also significantly increases the odds of physical violence. For the full subset, the odds of physical violence are 15 percent greater for each unit increase on a measure of perceived financial stress and are almost 50 percent greater for each unit increase in unhappiness over partner's spending. Similar results are found for the subset of white, non-Hispanic women. Thus, this analysis provides strong support for the hypothesis that there is a positive relationship between a woman's experience of financial stress and interpersonal conflict or physical violence in an intimate relationship.

These findings provide further support for the use of a general systems theory to explain conflict and common couple violence (Johnson, 1995) within intimate relationships, as well as a focus on economic factors. A systems approach views intimate partner violence as a response to the high levels of stress and hostility characteristic of families (Straus, 1990). It is important to note that the relationships between financial stress and interpersonal conflict or physical violence are significant even when controlling for other economic variables such as income and assets. A woman's level of satisfaction with and worry about her family's financial situation has a significant impact, even beyond the actual financial situation. This suggests that it is important not only to assess an individual's socioeconomic situation, but it is also important to assess her perceptions of that situation.

It is also important to note that a theoretical model with an emphasis on economic factors does not adequately specify the issues associated with physical violence for African American women or women of other races. Thus, for these populations a strong focus on tangible assets or perceived financial stress may not be the best use of advocate resources in ending or preventing intimate partner conflict or violence. Clearly, other factors will be more important for these subsets of women. Regardless of the form of the intervention, it is imperative that women have realistic options to intimate partner violence and conflict. This research indicates a need for innovative practices to address issues of financial stress, economic empowerment, and a need for effective methods of violence prevention.

## References

- Barnett, O.W., Lee, C.Y., & Thelen, R.E. (1997). Gender differences in attributions of self-defense and control in interpartner aggression. *Violence Against Women, 3*(5), 462-481.
- Browne, A. (1997). Violence in marriage: Until death do us part? In A.P. Cardarelli (Ed.), *Violence between intimate partners* (pp.48-69). Boston: Allyn & Bacon.
- Bumpass, L.L., & Sweet, J.A. (1996). *The National Survey of Families and Households-Waves 1 and 2: Data description and documentation*. Center for Demography and Ecology, University of Wisconsin-Madison (<http://www.ssc.wisc.edu/nsfh/home.htm>).
- Campbell, J.C., Miller, P., Cardwell, M.M., & Belknap, R.A. (1994). Relationship status of battered women over time. *Journal of Family Violence, 9*(2), 99-111.
- Cascardi, M., & Vivian, D. (1995). Context for specific episodes of marital violence: Gender and severity of violence differences. *Journal of Family Violence, 10*(3), 265-293.
- Conger, R.D., Reuter, M.A., & Elder, G.H. (1999). Couple resilience to economic pressure. *Journal of Personality and Social Psychology, 76*(1), 54-71.
- Crowell, N.A., & Burgess, A.W., (Eds.). (1996). *Understanding violence against women*. National Research Council. Washington, DC: National Academy Press.
- Dobash, R.E., & Dobash, R.P. (1992). *Women, violence & social change*. London: Routledge.
- Dobash, R.E. & Dobash, R.P. (1998). Cross-border encounters: Challenges and opportunities. In R.E. Dobash & R.P. Dobash (Eds.), *Rethinking violence against women* (pp.1-23). Thousand Oaks, CA: Sage.
- Dutton, D.G., & Starzomski, A.J. (1997). Personality predictors of the Minnesota Power and Control Wheel. *Journal of Interpersonal Violence, 12*, 70-82.
- Flynn, C.P. (1990). Relationship violence by women. *Family Relations, 39*, 194-198.
- Forte, J.A., Franks, D.D., Forte, J.A., & Rigsby, D. (1996). Asymmetrical role-taking: Comparing battered and nonbattered women. *Social Work, 41*, 59-73.
- Fox, G.L., & Chancey, D. (1998). Sources of economic distress: Individual and family outcomes. *Journal of Family Issues, 19*(6), 725-749.
- Green, R., & White, M. (1997). Measuring the benefits of homeownership: Effects on children. *Journal of Urban Economics, 41*, 441-461.
- Hampton, R., Carrillo, R., & Kim, J. (1998). Violence in communities of color. In R. Carrillo & J. Tello (Eds.), *Family violence and men of color: Healing the wounded male spirit* (pp.1-30). New York: Springer Publishing.
- Johnson, M. (1995). Patriarchal terrorism and common couple violence: Two forms of violence against women. *Journal of Marriage and the Family, 57*, 283-294.
- Kantor, G., Jasinski, J.L., & Aldarondo, E. (1994). Sociocultural status and incidence of marital violence in Hispanic families. *Violence and Victims, 9*(3), 207-222.
- Kurz, D. (1993). Physical assaults by husbands. A major social problem. In R.J. Gelles & D.R. Loseke (Eds.), *Current controversies on family violence* (pp.88-103). Newbury Park, CA: Sage.
- Loring, M. & Smith, R. (1994). Health care barriers and interventions for battered women. *Public Health Reports, 109*(3), 328-338.
- Margolin, G., John, R.S., & Foo, L. (1998). Interactive and unique risk factors for husbands' emotional and physical abuse of their wives. *Journal of Family Violence, 13*(4), 315-344.
- Morrow-Howell, N., & Proctor, E. (1992). The use of logistic regression in social work research. *Journal of Social Service Research, 16*(1-3), 87-104.

- Page-Adams, D. (1995). Economic resources and marital violence. Unpublished doctoral dissertation, Washington University, St. Louis, MO.
- Page-Adams, D., & Sherraden, M. (1996). *What we know about effects of asset holding: Implications for research on asset-based anti-poverty initiatives* (Working Paper No. 96-1). St. Louis: Washington University, Center for Social Development.
- Page-Adams, D., & Sherraden, M. (1997). Asset building as a community revitalization strategy. *Social Work, 42*, 423-434.
- Page-Adams, D., & Vosler, N. (1997). *Homeownership and well-being among blue-collar workers* (Working Paper 97-5). St. Louis: Washington University, Center for Social Development.
- Pryke, J. & Thomas, M. (1998). *Domestic violence and social work*. Brookfield, VT: Ashgate Publishing Company.
- Rennison, C.M. (2003). *Intimate partner violence, 1993-2001* (BJS Report No. NCJ 197838). United States Department of Justice. Retrieved April 2003, from <http://www.ojp.usdoj.ov.bjs>
- Rennison, C. M., & Welchans, S. (May 2000). *Intimate partner violence* (BJS Special Report No. NCJ 178247). United States Department of Justice. Retrieved February 2001, from <http://www.ojp.usdoj.gov/bjs/pub/pdf/ipv.pdf>
- Schafer, J., Caetano, R., & Clark, C. (1998). Rates of intimate partner violence in the United States. *American Journal of Public Health, 88*(11), 1702-1704.
- Sherraden, M. (1991). *Assets and the poor: A new American welfare policy*. Armonk, New York: M.E. Sharpe, Inc.
- Smith, P., Smith, J., & Earp, J. (1999). Beyond the measurement trap: A reconstructed conceptualization and measurement of woman battering. *Psychology of Women Quarterly, 23*, 177-193.
- Straus, M.A. (1990). Social stress and marital violence in a national sample of American families. In M.S. Straus & R.J. Gelles (Eds.), *Physical violence in American families*, (pp.181-201). New Brunswick, NJ: Transaction Publishers.
- Straus, M.A. (1997). Physical assaults by women partners: A major social problem. In M.R. Walsh (Ed.), *Women, men, and gender: Ongoing debates* (pp.210-221). New Haven, CT: Yale University Press.
- Tjaden, P., & Thoennes, N. (2000). *Extent, nature, and consequences of intimate partner violence* (Rep. No. NCJ 181867). National Institutes of Justice. Retrieved June 20, 2001, from <http://www.ojp.usdoj.gov/nij>
- Vosler, N. (1996). *New approaches to family practice: Confronting economic stress*. Thousand Oaks, CA: Sage.