

Development and Preliminary Psychometric Evaluation of the Domestic Violence–Related Financial Issues Scale (DV-FI)

Terri L. Weaver

Saint Louis University

Cynthia K. Sanders

Boise State University

Carole L. Campbell

St. John's University

Meg Schnabel

Redevelopment Opportunities for Women

Intimate partner violence (IPV) occurs at disproportionate rates within impoverished groups of women and can include economic abuse as a form of psychological maltreatment. The current study developed a comprehensive assessment of the unique financial issues facing female victims of IPV using a sheltered sample ($N = 113$). An exploratory factor analysis (principal-axis factoring with varimax rotation) was conducted on 24 items of the newly developed Domestic Violence–Related Financial Issues Scale. Preliminary results supported five extracted factors, which accounted for approximately 53% of the total common variance in the women's responses. Psychometric properties of the instrument are presented.

Keywords: *domestic violence; financial; assessment; economic abuse*

Intimate partner violence (IPV) comes in many forms including physical, sexual, verbal, psychological, and emotional abuse (M. P. Johnson & Ferraro, 2000). While receiving less empirical attention, the role that financial issues and economic circumstances play in women's experiences of IPV also

Authors' Note: Correspondence concerning this article should be addressed to Terri L. Weaver, 221 North Grand Boulevard, St. Louis, MO 63103; e-mail: weavert@slu.edu.

constitutes a critical dimension. Current research demonstrates this relevance in three important ways. First, although violence cuts across all socioeconomic classes, growing evidence suggests that poor women are more vulnerable to abuse than women from moderate- and upper-income levels. (Meier, 1997; Tolman & Raphael, 2000), and women on welfare are more likely to experience serious physical violence by their partner (Kurz, 1998).

The increased risk of exposure to IPV (generally; severe IPV, specifically) that is associated with economic disadvantage appears to be complex and multidimensional and to encompass aspects of neighborhood disadvantage and individual's financial distress. Benson, Fox, DeMaris, and Van Wyk (2003) examined aspects of neighborhood disadvantage, individual economic distress, and exposure to IPV within a reanalysis of Waves 1 and 2 of the National Survey of Families and Households. Controlling for violence at Time 1, demographic characteristics, and individual factors such as male drinking and female social support, both economically related contextual factors (i.e., neighborhood disadvantage) and individual factors (i.e., male employment instability and subjective financial strain) were associated with significantly increased risk of IPV at Time 2. Because there was no baseline measure of subjective factors within Wave 1, authors cautioned that conclusions related to subjective financial strain were tenuous.

Second, a number of studies have examined and documented the relationship between economic dependency and IPV. Lack of access to economic resources makes women and their children dependent on abusive partners (Sullivan, 1991). The degree of economic dependence has been found to predict a woman's ability to leave an abuser (I. M. Johnson, 1992; Strube & Barbour, 1983) and the likelihood and severity of abuse—with greater economic dependency predicting more severe violence (Kalmuss & Straus, 1982). Women who are unable to establish economic independence also find it more difficult to pursue charges or obtain restraining orders (Fernandez, Iwamoto, & Muscat, 1997). Additionally, studies find when women's economic status (e.g., employment, income, external financial support) equals or exceeds that of a partner, levels of IPV decrease (Farmer & Tiefenthaler, 1997, 2003; Lambert & Firestone, 2000; Tauchen, Witte, & Long, 1991).

In a recent review of the literature supporting a complex relationship between risk for IPV and economic dependency, Bornstein (2006) highlighted the distinction between objective economic dependency (i.e., the degree to which an individual relies on a partner for financial support) and subjective economic dependency (i.e., the perceived financial reliance on a partner for financial support). The small literature that reviewed differential,

predictive aspects of these two constructs supported their distinction and highlighted inconsistent findings related to subjective economic dependency (related to risk for IPV and likelihood of staying/leaving). However, Bornstein noted a lack of specificity within the assessment of subjective economic dependency (i.e., measurement encompassing social, economic, and sexual domains) that could have accounted for the mixed findings. Though tentative, these emerging findings suggest that subjective aspects of financial issues, such as women's dissatisfaction with finances and worry about current income, may confer increased risk for IPV, require greater measurement specificity, and warrant further study.

Third, economic issues not only comprise the context for increased risk of IPV but may also constitute a form of abuse. Evidence indicates that abusive partners often engage in tactics that negatively affect women financially and undermine their efforts to become economically independent (Sanders, 2007). Economic or financial abuse can include such behaviors as restricting a woman's access to money, controlling or limiting her ability to pursue education, or gain and maintain employment (Browne, Salomon, & Bassuk, 1999; Moe & Bell, 2004), and exploiting her financial resources (e.g., incurring debt in her name, stealing her money; Kenney & Brown, 1996; Ptacek, 1997).

Although economic abuse was included within the definition of psychological abuse (as an aspect of IPV) in 1988 (Barnett, Miller-Perrin, & Perrin, 2005), and limited behaviors were embedded within an existing measure of psychological abuse (Tolman, 1989), empirical research has yet to examine the full range of behaviors (e.g., including impact on credit card debt and credit rating) and to explore the construct validity (i.e., the ways in which these actions are interconnected with the other dimensions of IPV, such as physical, sexual, and emotional abuse) of the measure.

So, although previous research demonstrates the role of poverty, economic dependence, and financial abuse as factors in IPV, there appear to be no published articles explicitly focused on measuring the financial dimension of IPV. Thus, this study makes a significant contribution to the field through the preliminary evaluation of a scale to assess domestic violence-related financial issues. The Domestic Violence-Related Financial Issues (DV-FI) Scale, a comprehensive assessment of the unique financial issues facing female victims of IPV, was created and designed to assess an array of subjective factors related to finances, to explore the perceived associations between IPV and financial issues, and to examine aspects of economic abuse. This study offers a preliminary examination of the psychometric qualities of this newly developed instrument.

Method

Participants

Women were eligible for inclusion if they were (a) more than 18 years old, (b) residents of a participating shelter for at least 2 days prior to inclusion in the study, and (c) able to read and understand written English at the 6th-grade reading level. Individuals were excluded from participation if they (a) exhibited any overt symptoms of serious mental illness or cognitive impairment or (b) were not residents of a participating shelter.

The participants were 113 female victims of IPV seeking emergency shelter services. Some participants only completed partial portions of the demographics questionnaires resulting in a sample ranging from 95 to 113. Complete demographic data can be found in Table 1. Nearly three fifths of the sample was between the ages of 18 and 35 years. The majority of the sample consisted of minority, predominantly African American, participants. Regarding relationship status, more than one half of the participants identified themselves as single. The mean number of children within the sample was 2.2 ($SD = 1.8$). The sample was impoverished, as more than three fifths reported receiving US\$500 or less per month, and nearly one third reported receiving Temporary Assistance for Needy Families. Unemployment was high with more than four fifths reporting no employment. As expected, the sample experienced violence recently; more than three fifths within the past month.

Measures

The Conflict Tactics Scale 2 (Straus, Hamby, Boney-McCoy, & Sugarman, 1996) was selected to assess the frequency and severity of physical assault (12 items), injury (6 items), and sexual coercion (7 items). Each composite score was square root transformed to improve the skew of the distribution. This resulted in an approximately normal distribution of the physical assault subscale. Because the latter two scales initially had more skewed distributions (to the right), the transformation improved the skew on these scales, though they remained nonnormal. Coefficient alphas for the Physical Assault, Sexual Assault, and Injury subscales were .94, .92, and .86, respectively.

The Family Resource Scale (FRS; Dunst & Leet, 1987) was selected to assess the adequacy of resources across multiple domains, such as food, shelter, transportation, finances, health care, child care, and time for self.

Table 1
Frequencies for Demographic Characteristics (N = 113)

	<i>n</i>	%
Age		
18-25	23	20
26-35	42	37
36-50	44	39
51-60	2	2
Missing	2	2
Education		
Less than high school degree	26	23
High school degree/GED	47	42
Some college	31	27
College degree	5	4
Missing	4	4
Race		
African American	79	70
Caucasian	23	20
Hispanic	3	3
Native American	2	2
Biracial	6	5
Relationship status		
Single	62	55
Married—living together	5	4
Living with partner	4	4
Married—separated	32	28
Divorced	8	7
Widowed	1	1
Missing	1	1
Most recent incident physical violence		
Within past week	27	24
Within past month	48	43
Between 2 and 3 months ago	23	20
Between 4 months and 1 year ago	13	11
Missing	2	2
Monthly income ^a		
No income	34	31
\$1.00-\$500	42	37
\$501-\$1,000	22	20
\$1,001-\$1,500	7	6
\$1,500 or more	6	6
Primary source of income		
None	34	30
Wages	11	10
TANF	33	29

(continued)

Table 1 (continued)

	<i>n</i>	%
SSI/disability	5	4
Social security	2	2
Child support/alimony	4	4
Other	6	5
Missing	18	16
Current primary employment status		
Currently seeking employment	55	49
Employed more than full-time	7	6
Employed full-time	13	12
Employed part-time	4	4
Working and in school/training	2	2
In school/training	5	4
Homemaker not seeking employment	5	4
Disabled or retired not seeking employment	13	11
Other	3	3
Missing	6	5

Note: TANF = Temporary Assistance for Needy Families; SSI = Supplemental Security Income.

a. Two participants did not report their monthly income ($N = 111$).

The total score was computed omitting child-focused items to permit total scores for all women, including those without children. Coefficient alpha for the total score was .93.

The abbreviated form of the Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1989, 1999) was selected to assess two dimensions of psychological maltreatment: dominance/isolation and emotional and verbal abuse. Though scores on the PMWI were moderately skewed, examining the skew/kurtosis values suggested that a transformation was not necessary. Coefficient alpha for the dominance/isolation subscale was .83, and for the emotional and verbal abuse subscale it was .85.

The measure under development, the DV-FI, was created for the current study. Initial items for the measure were generated based on a comprehensive review of the literature on IPV-related financial issues. After a preliminary selection of items, proposed items were presented to a panel of greater than 25 domestic violence coalition advocates and executive directors, representing shelter and nonshelter agencies, all serving on an ad hoc committee focused on the intersection of poverty and IPV. Panel members examined the items for content and readability. Following the recommendations of the panel, modifications were made resulting in 25 items assessing

a range of financial factors. One item (Number 24), which referenced financial needs for children, was excluded from analyses because of its limited applicability to nonparent participants. Participants answered how much of a role each item played in her past experiences of violence and how helpful subsequent items would be in increasing respondents' current or future safety on a 7-point Likert-type scale. The scale showed adequate internal consistency (Cronbach's alpha = .80).

Procedure

The data used within this study were part of a larger study examining the impact of a financial curriculum conducted within two shelter settings (Sanders, Weaver, & Schnabel, 2007). Shelter dyads, matched on program characteristics, were yoked in a design in which one location received the curriculum, acting as the experimental group, and the other did not receive the curriculum, acting as the comparison group. Experimental and comparison group data were collected simultaneously every 2 weeks following delivery of the curriculum at the experimental sites. For the current study, all data are presented as cross-sectional data at the preassessment time point (i.e., collapsing across the experimental and comparison groups), with one exception. Two subscales of the measure (Financial Self-Efficacy and Financial Security and Future Safety) were administered at preassessment and postassessment for both the intervention and comparison groups. Correlations between preassessment and postassessment scores were examined for the comparison group (in the absence of a financially oriented intervention) to permit a limited examination of the test-retest reliability of this instrument.

Shelter staff informed shelter residents of the opportunity to participate in the economic curriculum and/or evaluation during house meetings (or the evaluation, only, for the comparison group setting). Women were informed that their participation in the evaluation would assist researchers with learning about the effectiveness of the curriculum courses and involved completing questionnaires focused on participants' awareness and access of community resources, their money, and their experiences with abuse and violence. If women were interested in participating, they attended a preevaluation assessment meeting that was scheduled on-site at the designated shelter location at a separate time. Child care was provided for participants with children. During these sessions, participants individually completed the assessment battery in small groups of 3 to 7 participants. Pairs of study personnel, including master's-level clinical psychology

trainees, who received specialized training to work with victims of IPV, and master's-level advocates, who worked in agencies serving victims of IPV, were available to answer any questions that participants may have had as they completed the assessment. Participants met briefly with a study personnel member following the evaluation to discuss any issues that arose during the completion of evaluation measures. The procedures for postevaluation and for the comparison group were identical to that of the preevaluation. Participants were paid US\$30.00 for the preevaluation and US\$35.00 for the postevaluation. The evaluation received approval from the University's Institutional Review Board.

Results

All data were analyzed using SPSS Version 11.5. Participants missing more than 25% of the total data ($N = 4$) were excluded from further scale analyses, leaving a total sample of 113. Because the current project intended to explore the underlying constructs in the participants' responses to the DV-FI, an exploratory factor analysis (principal-axis factoring) with varimax rotation was conducted. As is recommended for behavioral research, the latent root criterion (eigenvalue > 1.00) and an examination of the scree plot were used to extract meaningful factors that accounted for the maximum amount of common variance (Thompson, 2004). Overall, the results supported five extracted factors that accounted for approximately half (53%) of the total common variance in participants' responses. Two items (Numbers 6 [*Access to educational opportunities would be helpful in increasing my current and future safety*] and 8 [*I am confident that I can meet my goals for eliminating credit card debt*]) were discarded because of low factor loadings, and two items (Numbers 15 [*I am confident that I can meet my goals for increasing my ability to save*] and 25 [*Depression and/or anxiety about my financial situation has impacted my decisions about staying or leaving my partner*]) because of redundancy (interitem correlation $> .70$), leaving 20 items. The factor structures, including the items (with factor loadings) and variance explained by each factor, are displayed in Table 2.

The first factor, which was named Financial Self-Efficacy, contained five items and accounted for approximately 16% of the variance in participants' responses. This factor included items indicative of respondents' confidence in meeting certain financial goals. The second factor (five items) accounted for approximately 11% of the variance in responses. Items on this factor addressed participants' perceptions of the degree to which

Table 2
Factor Structure of the Domestic Violence–Related
Financial Issues (DV-FI)

DV-FI Factor With Items	Item Loading	Eigenvalue	% Variance
Financial Self-Efficacy		3.94	16.4
13. I am confident that I can meet my goals for becoming financially secure	0.80		
14. I am confident that I can meet my goals for eliminating credit card debt	0.64		
16. I am confident that I can meet my goals for improving my credit rating	0.84		
17. I am confident that I can meet my goals for obtaining adequate employment	0.72		
18. I am confident that I can meet my goals for accessing educational opportunities	0.78		
Financial Security and Future Safety		2.57	10.7
7. Becoming financially secure would be helpful in increasing my current and future safety	0.72		
9. Increasing my ability to save would be helpful in increasing my current and future safety	0.66		
10. A positive credit rating would be helpful in increasing my current and future safety	0.64		
11. Adequate employment would be helpful in increasing my current and future safety	0.78		
12. Access to educational opportunities would be helpful in increasing my current and future safety	0.50		
Perceived Financial Role in Partner Abuse		2.15	8.9
1. Financial insecurity has played a role in my previous experiences of partner violence	0.66		
3. Inability to save has played a role in my previous experiences of partner violence	0.75		
4. My credit rating has played a role in my previous experiences of partner violence	0.52		

(continued)

Table 2 (continued)

DV-FI Factor With Items	Item Loading	Eigenvalue	% Variance
5. Lack of adequate employment has played a role in my previous experiences of partner violence	0.52		
Economic Abuse		2.09	8.7
2. Credit card debt has played a role in my previous experiences of partner violence	0.44		
19. My partner prevented me from having access to money	0.50		
20. My partner negatively affected my credit rating	0.82		
21. My partner negatively affected my credit card debt	0.75		
22. My partner prevented me from obtaining necessary skills or education to obtain adequate employment	0.37		
Financial Distress and Relationship Decisions		1.95	8.1
23. Concerns or worries about my financial future affected my decisions about staying or leaving my partner	0.80		

changes in aspects of their financial situation might influence their safety, and this factor was named Financial Security and Future Safety. The third factor, accounting for 9% of the total variance, contained four items indicating the degree to which financial issues had played a role in participants' experiences of partner violence, and this factor was named Perceived Financial Role in Partner Violence. The fourth factor consisted of five items assessing behaviors that the respondents' partners engaged in, particularly with respect to preventing the participant from accessing financial resources. The factor accounted for 9% of the variance in participants' responses and was named Economic Abuse.

The fifth factor, Financial Distress and Relationship Decisions, accounted for 8% of the variance in participants' responses and contained a single item.

Validity of the DV-FI

Participants' responses to items on each factor were summed to create factor scores (see Table 3 for means, standard deviations, and intercorrelations

Table 3
Means, Standard Deviations, and Intercorrelations
Among DV-FI Factors

Factor	1	2	3	4	5	<i>M (SD)</i>	Cronbach's alpha
	Financial Self-Efficacy	Financial Security and Future Safety	Perceived Financial Role in Partner Violence	Economic Abuse	Financial Distress and Relationship Decisions		
1	1					26.8 (7.5)	.86
2	.211*	1				30.8 (5.9)	.8
3	-.124	.270**	1			18.6 (6.6)	.75
4	-.082	.108	.466**	1		19.1 (9.0)	.78
5	.109	.282**	.372**	.498**	1	5.2 (2.2)	—

Note: DV-FI = Domestic Violence–Related Financial Issues.

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

among factors). Factors 3 and 4 had approximately normal distributions. Though skewed, an examination of the skewness and kurtosis values suggested that transformations on the other factors were not necessary for correlational analyses.

Internal consistency. Cronbach's alpha was high for each of the factors, with values ranging from a low of .75 (Factor 3) to a high of .86 (Factor 1; see Table 3 for complete internal consistency data).

Construct validity. Construct validity was explored by conducting Spearman rank-order correlations among participants' scores on the five DV-FI factors, and they included measures of convergent and divergent validity (see Table 4). Significant and positive correlations were found between both measures of psychological maltreatment and the subscales of financial security and future safety, perceived financial role in partner violence, economic abuse, and financial distress and relationship decisions. Notably, the magnitude of these correlations (.20-.43) suggested that these measures were complementary, though they assess separate aspects of maltreatment/partner abuse. Similarly, a modest, significant correlation was found between the severity of physical assault and the subscale of perceived financial role in partner violence. Total family resources, as measured by the FRS, were significantly and positively correlated with the Financial Self-Efficacy scale of the DV-FI.

In terms of discriminant validity, subscales of the DV-FI were also measuring something distinct from total economic resources. That is, there

Table 4
Convergent and Divergent Validity Correlations

	FRS Total	CTS Physical Assault	CTS Sexual Assault	CTS Injury	PMWI Emotional/ Verbal	PMWI Dominance/ Isolation
Financial self-efficacy	.25**	-.12	-.09	-.16	-.07	-.11
Financial security and future safety	-.11	-.04	-.07	-.09	.31**	.20*
Perceived financial role in partner violence	-.14	.20*	.17	.12	.34**	.36**
Economic abuse	-.18	.11	.18	.1	.42**	.43**
Financial distress and relationship decisions	-.11	.05	.05	-.01	.35**	.33**

Note: FRS = Family Resource Scale; CTS = Conflict Tactics Scale; PMWI = Psychological Maltreatment of Women Inventory.

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

were nonsignificant correlations between the total resources and subscales of financial security and future safety, perceived financial role in partner violence, economic abuse, and financial distress and relationship decisions. Finally, the sample was dichotomized into two groups based on no/very low ($\$0$ - $\$250$) and low/moderate monthly income ($\$251$ - $\$2000$ or greater). There were nonsignificant differences between the two groups on the subscales of financial self-efficacy, financial security and future safety, perceived financial role in partner violence and economic abuse. The very low income group had a significantly greater score on the measure of financial distress and relationship decisions ($M = 5.72$, $SD = 1.84$) compared to the low/moderate income ($M = 4.70$, $SD = 2.35$), $t(109) = 2.49$, $p < .05$.

Test-retest reliability. Correlations between preassessment and postassessment responses were examined for the comparison group ($n = 35$, in the absence of a financially oriented intervention) to examine test-retest reliability of two of the five subscales.

Correspondence between participants' responses on the financial self-efficacy and financial security and future safety subscales were examined on assessments administered nearly 2 weeks apart on average ($M = 13.7$ days, mode = 11 days, range = 10-26 days, $SD = 13.8$ days). Stability coefficients revealed moderate stability over the 2-week period of time with $r = .62$ for financial self-efficacy and $r = .59$ for financial security and future safety.

Discussion

The DV-FI showed promise as a multidimensional measure of the way in which financial issues are intertwined with IPV. Subscales of this measure assessed concerns distinct from financial resources/income. Aspects of multidimensionality captured the ways in which finances may play a layered role in the experiences of IPV, including serving as a tool of violence (economic abuse and perceived financial role in partner abuse), affecting perceptions of previous and future safety (financial security and future safety), comprising a context for goal setting, future opportunities (financial self-efficacy), and relationship decisions (financial distress and relationship decisions).

Notably, four subscales of the DV-FI (financial security, perceive financial role in partner violence, economic abuse, and financial distress and relationship decisions) were significantly associated with both subscales of the PMWI (correlations ranging in magnitude, .20-.43). Interestingly, economic abuse reflected the greatest association with both PMWI subscales (.42 with emotional/verbal abuse and .43 with dominance/isolation). Economic abuse has been conceptualized as a form of psychological abuse (Loring, 1994), and these findings support this assertion. In addition, the fact that multiple domains of financial functioning were associated with psychological maltreatment with correlations medium-low in magnitude (Cohen, 1988) suggested that financial aspects associated with IPV (beyond economic abuse) may covary with psychological maltreatment. It is possible that there were additional, *third variable* influences that would account for these associations. For example, it is possible that psychological sequelae of psychological maltreatment, such as posttraumatic stress disorder, depression, and hopelessness, may play a mediating or moderating role in shaping financial concerns, perceptions, and behaviors. Interestingly, severity of physical violence was significantly associated with only one subscale of the DV-FI (perceived financial role in partner violence). This specific association offered convergent validity for this subscale, because both constructs directly focus on aspects of abusive behavior. This finding also preliminarily supported the supposition that increasingly severe forms of physical violence may be associated with a greater perception of financial issues playing a role in the experience of partner violence. However, it is notable that the magnitude of this association was significant but small ($r = .20$). It is also possible that this association was constrained by the fact that the current sample was a shelter sample and that such samples generally tend to report severe forms of physical violence, constricting the

range and variability of this measure. These findings indicate the need for further examination of the associations of multiple financial concerns with measures of physical and psychological abuse, seeking to replicate or expand the current findings.

To the researchers' knowledge, the subscale of financial self-efficacy is the first, detailed assessment of financial self-efficacy to operationalize the respondent's degree of confidence within different financial domains, including financial security, credit card debt and rating, and employment and educational opportunities. Existing studies have developed general assessments of financial self-efficacy reflecting confidence in making decisions about and handling general money issues (Danes, Huddleston-Casas, & Boyce, 1999) and adapted an existing mastery scale to assess control over financial things and dealing with money problems (Dietz, Carrozza, & Ritchey, 2003). A more detailed assessment of financial self-efficacy, such as the subscale on the DV-FI, allows for a targeted assessment of perceived financial difficulties and examination of change within specific areas of financial functioning. In fact, Dietz et al. (2003) called for a more refined measurement of financial self-efficacy when they found that their financial self-efficacy measure failed to predict financial behavior (i.e., participation of women within a retirement plan). In the current study, financial self-efficacy was modestly though significantly correlated with total objective resources (FRS total). Conceptually, financial self-efficacy may be an example of subjective economic dependency, whereas a measure of total resources may be an example of objective economic dependency. The extant literature has documented parallel associations between these two constructs with subjective and objective economic dependency significantly though modestly interrelated ($r = .15$; e.g., Kalmuss & Straus, 1982). These findings generally support the distinctiveness of the two constructs and also suggest that objective resources may play a modest, though demonstrable, role in shaping financial self-efficacy. It is also possible that there is a bidirectional relationship between these two constructs or that financial self-efficacy influences the acquisition of resources. These findings call for continued exploration of subjective and objective aspects of economic functioning and examination of ways in which the two constructs may be overlapping or distinct in their prediction of financial behavior or (in the case of IPV) relationship functioning.

Finally, one finding within the current study converges with the extant literature on the associations between financial resources and relationship decisions. Specifically, the very low-income group reported a significantly greater score on the measure of financial distress and relationship decisions

(indicating that concerns about finances affected decisions about staying or leaving one's partner) compared to the low/moderate income. Bornstein (2006) reviewed several studies indicating that level of financial income, evidenced by employment in low-paying occupations, level of income, available money, independent income, was significantly associated with women's stay/leave decisions. Additional research should continue to examine the influence of income on the perceptions of relationship options and to explore the ways in which these perceptions are associated with behavioral change.

There are a number of limitations within the current study that should be considered. First, these findings are considered preliminary and should be replicated with a larger, more representative sample of victims of IPV. Similarly, the current findings can only be generalized to victims of IPV residing in shelter environments. It is possible that the responses on the current measure and the present factor structure may be different for community-based or non-treatment-seeking victims. In addition, it is important to note that this measure, by design, reflects victims' perceptions. The association between victims' perceptions of their financial behavior and their actual financial behavior warrants further study.

The DV-FI is a comprehensive assessment of the unique financial issues facing female victims of IPV and was created and designed to assess an array of subjective factors related to finances, to explore the perceived associations between IPV and financial issues, and to examine aspects of economic abuse. Preliminary findings support the psychometric validity of this novel measure. The DV-FI can play an important role in continuing to examine the complex associations between IPV and issues related to finances.

References

- Barnett, O. W., Miller-Perrin, C., & Perrin, R. D. (2005). *Family violence across the life span: An introduction*. Thousand Oaks, CA: Sage.
- Benson, M. L., Fox, G. L., DeMaris, A., & Van Wyk, J. (2003). Neighborhood disadvantage, individual economic distress and violence against women in intimate relationships. *Journal of Quantitative Criminology, 19*, 207-235.
- Bornstein, R. F. (2006). The complex relationship between dependency and domestic violence: Converging psychological factors and social forces. *American Psychologist, 61*, 595-606.
- Browne, A., Salomon, A., & Bassuk, S. S. (1999). The impact of recent partner violence on poor women's capacity to maintain work. *Violence Against Women, 5*, 393-426.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.

- Danes, S. M., Huddleston-Casas, C., & Boyce, L. (1999). Financial planning curriculum for teens: Impact evaluation. *Financial Counseling and Planning, 10*, 25-37.
- Dietz, B. E., Carrozza, M., & Ritchey, P. N. (2003). Does financial efficacy explain gender differences in retirement savings strategies? *Journal of Women and Aging, 15*, 83-96.
- Dunst, C., & Leet, H. E. (1987). Measuring the adequacy of resources in households with young children. *Child: Care, Health and Development, 13*, 111-125.
- Farmer, A., & Tiefenthaler, J. (1997). An economic analysis of domestic violence. *Review of Social Economy, 55*, 337-358.
- Farmer, A., & Tiefenthaler, J. (2003). Explaining the recent decline in domestic violence. *Contemporary Economic Policy, 21*, 158-172.
- Fernandez, M., Iwamoto, K., & Muscat, B. (1997). Dependency and severity of abuse: Impact on women's persistence in utilizing the courts system as protection against domestic violence. *Women & Criminal Justice, 9*, 39-63.
- Johnson, I. M. (1992). Economic, situational and psychological correlates of the decision-making process of battered women. *Families in Society: The Journal of Contemporary Human Services, 73*, 168-176.
- Johnson, M. P., & Ferraro, K. J. (2000). Research on domestic violence in the 1990s: Making distinctions. *Journal of Marriage and Family, 62*, 948-963.
- Kalmuss, D. S., & Straus, M. A. (1982). Wife's marital dependency and wife abuse. *Journal of Marriage and Family, 44*, 277-286.
- Kenney, C. T., & Brown, K. R. (1996). *Report from the front lines: The impact of violence on poor women*. New York: NOW Legal Defense and Education Fund.
- Kurz, D. (1998). Women, welfare, and domestic violence. *Social Justice, 25*, 105-122.
- Lambert, L. C., & Firestone, J. M. (2000). Economic context and multiple abuse techniques. *Violence Against Women, 6*, 49-67.
- Loring, M. T. (1994). *Emotional abuse*. New York: Lexington Books.
- Meier, J. (1997). Domestic violence, character, and social change in the welfare reform debate. *Law and Policy, 19*, 205-263.
- Moe, A. M., & Bell, M. (2004). Abject economics: The effects of battering and violence on women's work and employability. *Violence Against Women, 10*, 29-55.
- Ptacek, J. (1997). The tactics and strategies of men who batter. In A. P. Cardarelli (Ed.), *Violence between intimate partner: Patterns, causes, and effects* (pp. 48-69). Boston: Allyn & Bacon.
- Sanders, C. K. (2007). *Domestic violence, economic abuse and implications of a program for building economic resources for low-income women: Findings from interviews with participants in a women's economic action program* (CSD Research Report 07-12). St. Louis, MO: Washington University, Center for Social Development. Retrieved April 10, 2007, from <http://gwbweb.wustl.edu/csd/Publications/2007/RP07-12.pdf>
- Sanders, C. K., Weaver, T. L., & Schnabel, M. (2007). Economic education for battered women: An evaluation of outcomes. *AFFILLA: Journal of Women and Social Work, 22*, 240-254.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283-316.
- Strube, M. J., & Barbour, L. S. (1983). The decision to leave an abusive relationship: Economic dependence and psychological commitment. *Journal of Marriage and Family, 45*, 785-793.
- Sullivan, C. M. (1991). The provision of advocacy services to women leaving abusive partners: An exploratory study. *Journal of Interpersonal Violence, 6*, 41-54.

- Tauchen, H. V., Witte, A. D., & Long, S. K. (1991). Domestic violence: A nonrandom affair. *International Economic Review*, 32, 491-511.
- Thompson, B. (2004). *Exploratory and confirmatory factor analysis: Understanding concepts and applications*. Washington, DC: American Psychological Association.
- Tolman, R. M. (1989). The development of a measure of psychological maltreatment of women by their male partners. *Violence and Victims*, 4(3), 159-177.
- Tolman, R. M. (1999). The validation of the psychological maltreatment of women inventory. *Violence and Victims*, 14, 25-37.
- Tolman, R. M., & Raphael, J. (2000). A review of research on welfare and domestic violence. *Journal of Social Issues*, 56, 655-682.

Terri L. Weaver, PhD, is an associate professor in the Department of Psychology at Saint Louis University. Her research interests include a focus on the etiological factors associated with posttraumatic stress disorder (PTSD), the psychological and physical impact of traumatic events, especially family violence and sexual assault, the psychological impact of violence-related injury, and cross-cultural research and traumatic stress.

Cynthia K. Sanders, PhD, MSW, is an associate professor in the school of social work at Boise State University and a faculty associate with the Center for Social Development at Washington University in St. Louis. Her current research examines the role of economic factors in domestic violence and initiatives to promote economic development among low-income women affected by IPV.

Carole L. Campbell, PhD, is a postdoctoral fellow and project coordinator for the Community PARTNERS Program at St. John's University. Her research and clinical interests focus on primary and secondary interventions to reduce trauma and its effects on children, adolescents, and young adults. Her research also addresses increasing access to evidence-based treatments among traumatized minority youth.

Meg Schnabel, MSW, is the executive director of Redevelopment Opportunities for Women, a nonprofit agency in St. Louis, Missouri, whose mission is to empower women and their families to build safety, skills, economic security, and hope for the future. She also teaches graduate courses on domestic violence at several schools of social work in St. Louis, Missouri.