

Violence Against Women

<http://vaw.sagepub.com>

Development of the Scale of Economic Abuse

Adrienne E. Adams, Cris M. Sullivan, Deborah Bybee and Megan R. Greeson
VIOLENCE AGAINST WOMEN 2008; 14; 563
DOI: 10.1177/1077801208315529

The online version of this article can be found at:
<http://vaw.sagepub.com/cgi/content/abstract/14/5/563>

Published by:

 SAGE Publications

<http://www.sagepublications.com>

Additional services and information for *Violence Against Women* can be found at:

Email Alerts: <http://vaw.sagepub.com/cgi/alerts>

Subscriptions: <http://vaw.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations (this article cites 61 articles hosted on the
SAGE Journals Online and HighWire Press platforms):
<http://vaw.sagepub.com/cgi/content/refs/14/5/563>

Development of the Scale of Economic Abuse

Adrienne E. Adams

Cris M. Sullivan

Deborah Bybee

Megan R. Greeson

Michigan State University

Economic abuse is part of the pattern of behaviors used by batterers to maintain power and control over their partners. However, no measure of economic abuse exists. This study describes the development of the Scale of Economic Abuse, which was designed to fill this gap. Interviews were conducted with 103 survivors of domestic abuse, each of whom responded to measures of economic, physical, and psychological abuse as well as economic hardship. Results provide evidence for the reliability and validity of the scale. This study is an important first step toward understanding the extent and impact of economic abuse experienced by survivors.

Keywords: *economic abuse; intimate partner abuse; measurement development*

Woman battering is a pervasive social problem perpetrated against millions of women in the United States each year (Tjaden & Thoennes, 2000). Battering involves a pattern of behavior, most often committed by men against women, that results in the perpetrator's gaining an advantage of power and control in the relationship (Dobash, Dobash, Wilson, & Daly, 1992; Johnson, 1995). Such behavior includes physical violence and the continued threat of such violence, but it also includes other forms of abuse—psychological (Arias & Pape, 1999; Follingstad, Rutledge, Berg, Hause, & Polek, 1990; Tolman, 1992), sexual (Bergen, 1996; Finkelhor & Yllo, 1985; Russell, 1990), and economic (Moe & Bell, 2004; Pence & Paymar, 1993; Raphael, 1996).

The consequences of battering on its victims can be quite severe. In addition to the physical injuries that women sustain as a result of physical assaults (Browne,

Authors' Note: We would like to acknowledge the invaluable contributions of Dr. Rebecca Campbell, research assistants Tanya Anderson, Jillian Henry, Erin McIntosh, and Jessica Sanders, and the domestic abuse service providers who facilitated data collection. Most important, we wish to thank the women who volunteered to participate in this study, for it was their willingness to share their stories and experiences that made this project possible.

1993; Sutherland, Bybee, & Sullivan, 2002; Tjaden & Thoennes, 2000), ongoing experiences of physical abuse have deleterious effects on women's mental health. Researchers have consistently found high levels of depression, posttraumatic stress symptoms, suicidality, and substance abuse and dependence among women victimized by physically abusive partners (Cascardi, O'Leary, Lawrence, & Schlee, 1995; Golding, 1999; Khan, Welch, & Zillmer, 1993; McCauley et al., 1995; Vitanza, Vogel, & Marshall, 1995).

Evidence suggests that psychological forms of abuse may be equally as harmful, if not more so, than physical forms of abuse. According to Follingstad and colleagues (1990), 72% of the abused women whom they interviewed attested that psychological abuse had a more severe impact on them than that wrought by the physical abuse. In another study, Orava, McLeod, and Sharpe (1996) found that when compared to nonabused women, abused women felt less personal power, were significantly more depressed, and had lower self-esteem. However, after controlling for the frequency of verbal abuse, most of the between-group differences were lost, suggesting that verbal abuse accounted for the differences between the two groups of women. Other studies examining the effects of psychological maltreatment have linked this form of abuse to an extensive range of behavioral and health outcomes, such as poor physical health, substance use, chronic disease, chronic mental illness, posttraumatic stress disorder, suicide ideation and attempts, depression, and low self-esteem (Aguilar & Nightingale, 1994; Arias & Pape, 1999; Cascardi et al., 1995; Coker, Smith, Bethea, King, & McKeown, 2000; Katz, Arias, & Beach, 2000; Khan et al., 1993; Marshall, 1996; Sackett & Saunders, 1999; Street & Arias, 2001; Vitanza et al., 1995).

In addition to experiencing physical violence and psychological abuse, approximately one third to one half of women in abusive relationships experience sexual abuse (Campbell, 1989; Hanneke, Shields, & McCall, 1986; Pagelow, 1992). This type of abuse includes physical sexual assaults as well as sexual exploitation and coercion (Bergen, 1996; Finkelhor & Yllo, 1985). The effects of sexual assault by an intimate partner include physical problems such as nausea, fatigue, bruising, and broken bones, as well as gynecological consequences such as infertility, bladder infections, and miscarriages (Adams, 1993; Bergen, 1996; Campbell & Alford, 1989). Women who are raped by their partners also suffer severe and long-term psychological consequences, such as anxiety, depression, and suicidal ideation (Frieze, 1983; Kilpatrick, Best, Saunders, & Vernon, 1988; Russell, 1990). This form of abuse is particularly troubling given that it is characteristic of the most violent and dangerous abusive relationships (Browne, 1987; Campbell, 1989; Hanneke et al. 1986; Pagelow, 1992).

Although a great deal of research to date has examined the prevalence and consequences of physical, psychological, and sexual abuse, economic abuse has received far less attention from the scientific community. Economic abuse involves behaviors that control a woman's ability to acquire, use, and maintain economic resources, thus threatening her economic security and potential for self-sufficiency.

Preventing Women's Resource Acquisition

One significant way that abusive men interfere with a woman's ability to acquire resources is by preventing her from obtaining and maintaining employment. Research indicates that abusive men often forbid, discourage, and actively prevent their partners from working outside the home (Aguilar & Nightingale, 1994; Brewster, 2003; Curcio, 1997; Hudson & McIntosh, 1981; Riger, Ahrens, Blickenstaff, & Camacho, 1999; Sable, Libbus, & Huneke, 1999; Shepard & Pence, 1988; Tolman, 1989; VonDeLinde, 2002; Walker, 1979). There is also evidence indicating that abusers actively interfere with their partners' ability to find employment. For example, Raphael (1996) described how abusive men sabotage their partners' efforts to find jobs by inflicting visible injuries, turning off the alarm clock, and refusing to provide child care to prevent their partners from attending job fairs and interviews.

In recent years, a growing body of research has documented abusive men's use of a variety of tactics to interfere with their partners' ability to sustain employment. For example, women interviewed by Riger, Ahrens, and Blickenstaff (2001) reported that their partners had interfered with their efforts to go to work, by sabotaging their cars, threatening and physically restraining them, failing to show up to care for their children, stealing their car keys and money, and refusing to give them a ride to work. These tactics as well as others, such as withholding medication, preventing sleep, cutting their hair, hiding their clothes, and inflicting injuries, have been reported elsewhere (Brandwein & Filiano, 2000; Brewster, 2003; Lloyd, 1997; Lloyd & Taluc, 1999; Moe & Bell, 2004; Raphael, 1996). Abusive men also interfere with their partners' ability to maintain employment by showing up at their partners' places of employment, harassing them with telephone calls throughout the workday, and harassing their coworkers (Lloyd, 1997; Lloyd & Taluc, 1999; Raphael, 1996; Riger et al., 2001). The impact of such work interference can be severe, including missed work days, loss of hours at work, and loss of a job (Sable et al., 1999; Shepard & Pence, 1988; Tolman & Wang, 2005).

In addition to demonstrating how abusive men prevent their partners from working, studies show that abusive men also interfere with their partners' efforts to take part in self-improvement activities aimed at increasing their marketability in the labor force and heightening their chance of obtaining a decent job. Interfering with educational pursuits is a common way that abusive men prevent self-improvement. In fact, researchers have consistently documented batterers' interference with their partners' ability to further their education, with the frequency of occurrence ranging from 23% (in one sample) to 62% (in another study; Anderson et al., 2003; Curcio, 1997; Riger et al., 1999; Shepard & Pence, 1988; Tolman, 1989).

In addition to revealing the interference that women experience as they attempt to obtain an education, job skills, and employment, evidence suggests that abusive men

prevent women from acquiring income and assets by other means. For example, even if a woman is employed, her partner may demand that she hand over her paycheck, thus denying her from having her own money (Hofeller, 1982). Furthermore, abusive men may hinder a woman's acquiring money of her own by interfering with the receipt of other forms of support, such as child support, public assistance, disability payments, and education-based financial aid (Brewster, 2003; Moe & Bell, 2004; Ptacek, 1997). In addition to interfering with their partners' income, some abusive partners prevent women from acquiring assets by refusing to put their names on the deeds to their houses and on the titles of their cars and by not allowing them to have their own cars (Brewster, 2003).

Preventing Women's Resource Use

Another form of economic abuse involves preventing women from using resources that they already have. Specifically, abusive men exercise power by controlling how resources are distributed and by monitoring how they are used (Anderson et al., 2003; Brewster, 2003; Davies & Lyon, 1998; Dobash & Dobash, 1979; Hofeller, 1982; Martin, 1976).

Women in abusive relationships often report that their partners strictly limit their access to household resources. Some women are denied access to money even for necessities such as food, whereas others report that they are allotted a specific amount of money to be spent on household necessities and nothing more (Anderson et al., 2003; Coker et al., 2000; Davies & Lyon, 1998; Follingstad et al., 1990; Hofeller, 1982; Hudson & McIntosh, 1981; Pagelow, 1981; Pence & Paymar, 1993; Schechter & Gary, 1988; Tolman, 1989; VonDeLinde, 2002; Walker, 1979). Women also report that, as opposed to their using money as necessary, their partners give them an allowance and make them ask for money when it is needed (Lloyd, 1997; Lloyd & Taluc, 1999; Pence & Paymar, 1993; Shepard & Campbell, 1992). Furthermore, studies show that abusive men hide jointly earned money, prevent their partners from having access to joint bank accounts, lie about shared assets, and withhold information about their finances (Brewster, 2003; Coker et al., 2000; Pence & Paymar, 1993; Schechter & Gary, 1988; VonDeLinde, 2002).

In addition to controlling how money is spent, abusive men dictate and monitor their partners' use of transportation. Women are prevented from using their cars and their shared transportation, whereas others have their access to transportation restricted (Ptacek, 1997; Rodenburg & Fantazzo, 1993). One common way that abusive men restrict their partners' use of transportation is by taking the car keys or disabling the car (Martin, 1976; Rodenburg & Fantazzo, 1993). All these tactics are instrumental in an abusive man's efforts to control his partner's ability to make use of her own or their shared economic resources.

Exploiting Women's Resources

In addition to dictating and monitoring how resources are used, some batterers intentionally deplete women's available resources, as a means of limiting their options. This can occur in a variety of ways, including stealing their partners' money, creating costs, and generating debt.

Anderson and colleagues (2003) reported on the frequency of stealing among a sample of 485 women who sought services from a domestic abuse advocacy program. They found that 38% of the women reported that their partners stole money from them. According to anecdotal reports from victim advocates, abusive men steal money from their partners through a variety of means. For example, an abusive man may take money from his partner's purse or wallet, steal her checkbook or ATM card and use it without permission, gamble with her money or their shared money, or demand that her money be put into a joint bank account so that he can spend it freely (Anderson et al., 2003; Lloyd, 1997; Lloyd & Taluc, 1999; Pence & Paymar, 1993; Rodenburg & Fantuzzo, 1993; Schechter & Gary, 1988).

Women in abusive relationships also have a difficult time maintaining their economic resources when their partners engage in behaviors that generate costs. For example, research shows that abusive men steal, damage, and destroy their partners' possessions and household items (Brewster, 2003; Follingstad et al., 1990; Pearson, Thoennes, & Griswold, 1999; Ptacek, 1997; Rodenburg & Fantuzzo, 1993). They may also cause damage to their apartments, houses, and cars (Davies & Lyon, 1998; Rodenburg & Fantuzzo, 1993). Furthermore, women have reported that their partners have had their heat, electricity, and phone turned off (Anderson et al., 2003; Rodenburg & Fantuzzo, 1993). These tactics deplete women's economic resources in two ways: Not only do they lose the property they once had, but they also incur the costs to reinstate the utilities, replace the items, and repair the damage.

Finally, the exploitive control tactics employed by abusive men have been shown to interfere with a woman's ability to maintain economic resources by having debt generated in her name. Research suggests that some abusive men refuse to pay rent or make mortgage payments and refuse to pay other bills, thereby placing the responsibility and consequences on their partners (Brewster, 2003; Davies & Lyon, 1998; Ptacek, 1997). Another way that abusive men have been shown to generate debt for their partners is by obtaining credit cards in both partners' names and by using her credit card without her permission (Brewster, 2003). Thus, women in abusive relationships are at risk for accruing personal debt when shared resources are under her name or both names. In other words, abusive men take advantage of such a situation and use it as a means of threatening their partners' economic stability.

Effects of Experiencing Economic Abuse

Economic abuse can seriously impede women's economic, physical, and psychological health. One direct consequence of economic abuse is that the survivor becomes economically dependent on the abuser. Studies have consistently identified economic dependence as a critical obstacle for many women who are attempting to leave abusive partners (Aguirre, 1985; Gondolf & Fisher, 1988; Johnson, 1992; Okun, 1988; Strube & Barbour, 1983, 1984).

The lack of economic resources that economic abuse creates not only fosters economic dependence on an abuser but also threatens a woman's short-term and long-term economic health—and possibly her mental health. For women with limited economic resources, leaving an abusive relationship means having to face an uncertain economic future. Specifically, low-income women with abusive partners report a lack of resources needed for day-to-day survival, such as money, housing, child care, and transportation (Chalmers & Smith, 1984; Short et al., 2000). On top of that, many do not have the job skills and the wage-earning power to support themselves and their children (Labell, 1979). Women's options are further limited when their credit has been destroyed by an abusive partner, making it almost impossible to secure necessary resources such as housing (Correia & Rubin, 2001; Melbin, Sullivan, & Cain, 2003). Many women who do escape abusive relationships experience a decrease in their standards of living once they leave, ending up living in poverty, depending on government assistance, or becoming homeless (Barnett & LaViolette, 1993; Davis, 1999).

Economic abuse may also indirectly affect women's physical and psychological health. Studies have shown a strong relationship between the conditions of poverty and poor physical and psychological health (Brown & Moran, 1997; Lynch, Kaplan, & Shema, 1997; Stronks, Van de Mheen, Van den Bos, & Mackenbach, 1997). Low-income women who endure chronic sources of stress, such as substandard housing, inadequate food, and unstable income, have been shown to be at increased risk for depression, anxiety, chronic health problems, and poor general physical health (Dunn & Hayes, 2000; Hall, Williams, & Greenberg, 1985; McCallum, Arnold, & Bolland, 2002; McLeod & Kessler, 1990; Stronks, Van de Mheen, & Mackenbach, 1998). Similarly, the health of women with an economically abusive partner may be compromised as they endure the stress associated with chronic economic deprivation and exploitation. This applies not only to women in economically abusive relationships but also to women who have left their abusive partners and are struggling to make ends meet on the few resources that they have available.

Current Study

Abusive men may employ a broad spectrum of economically abusive tactics in their attempts to maintain dominance and control over their partners, and these

tactics have a detrimental impact on women's economic stability. The purpose of the present study was to develop a comprehensive measure that captures the economically abusive behaviors used by men who batter. A measure of economic abuse will enable researchers to examine the nature and extent of this form of abuse; the impact that it has on women's economic, physical, and mental health; and the implications that it has on women's ability to escape abusive partners. With a richer understanding of economic abuse, we can begin to develop interventions and tailor existing programming to the unique experiences and needs of women whose financial health has been compromised by an abusive partner.

Method

Initial Scale Construction

Items for the Scale of Economic Abuse (SEA) were initially derived from numerous sources, including the domestic violence literature and the knowledge and experience of domestic violence researchers, advocates, and survivors. Specifically, items were developed not only from a review of quantitative and qualitative studies that captured women's experiences with abusive partners but also from theoretical and anecdotal literature that described the control tactics used by abusive men. In addition, five measures of psychological abuse—the Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1999), the Index of Spouse Abuse (Hudson & McIntosh, 1981), Index of Psychological Abuse (Sullivan, Parisian, & Davidson, 1991), Abuse Behavior Inventory (Shepard & Campbell, 1992), and the Measure of Wife Abuse (Rodenburg & Fantuzzo, 1993)—and the Interference With Work/School Scale (Riger et al., 2001) were examined for items that tapped economic abuse. Items were also generated with the assistance of three domestic violence advocates from a local domestic violence shelter program and two prominent domestic violence researchers. In addition, 12 survivors contributed to the development of the SEA items. Each woman completed an initial draft of the measure and suggested changes and additional items to be incorporated into the instrument.

This extensive process resulted in a measure consisting of 120 items that describe behaviors that control a woman's ability to acquire, use, and maintain economic resources. Women rated the frequency with which their partners had employed each of the economic abuse tactics according to a 5-point scale, ranging from 1 (*never*) to 5 (*quite often*). The scale also contains qualitative questions eliciting any additional forms of economic abuse that were experienced but not covered in the survey. Several experts, including survivors of intimate partner abuse, determined that the SEA had good face validity; that is, the SEA items appeared to capture economic abuse.

Measures

To help test the validity of the new measure, three additional instruments are contained in the interview. One is a widely used measure of psychological abuse, another a widely used measure of physical abuse, and one a measure of women's economic well-being.

PMWI. The short-version PMWI (Tolman, 1999) contains 14 items, and it was used to assess the degree of psychological abuse that women experienced in the last 6 months of their relationship. Women rated how frequently each of the 14 abusive acts occurred during the last 6 months of their relationship, on a scale ranging from 1 (*never*) to 5 (*very frequently*). Sample items include "My partner called me names" and "My partner told me my feelings were irrational or crazy." The PMWI has an internal consistency coefficient of .87.

Modified Conflict Tactics Scale. The Conflict Tactics Scale (CTS; Straus, 1979), as modified by Sullivan and colleagues (Sullivan, Tan, Basta, Rumpitz, & Davidson, 1992), was used to assess the levels of violence that women experienced in the last 6 months of their relationships. The modified CTS is a 23-item measure that asks women to rate the frequency of each behavior during the last 6 months of their relationships, on a scale ranging from 1 (*never/none*) to 7 (*more than four times per week*). The types of physically abusive behaviors include "Pushed or shoved you" and "Choked or strangled you." This scale has demonstrated good internal consistency ($\alpha = .92$; Goodkind, Sullivan, & Bybee, 2004). In this sample, the reliability coefficient is .93.

Economic Hardship Index. Developed for this study, the Economic Hardship Index consists of 13 items designed to assess women's economic problems since the abusive relationship began. Examples of the yes-no items include "Have you had trouble buying food or other necessities for your family?" and "Have you had trouble with your credit rating?" The index has good internal consistency, with a Cronbach's alpha of .86. Participants were also asked to rate how much they thought that their partners had to do with their financial hardships (1 = *none/not at all*, 5 = *completely*).

Basic demographic data about participants were gathered within the interviews, including questions about race, age, education, employment status, number of children, income, and relationship status.

Procedure

To examine the psychometric properties of the new measure, face-to-face structured interviews were conducted with 103 women who were receiving residential and/or nonresidential services from one of five domestic abuse victim service agencies

in a Midwestern state. Highly trained interviewers informed women of the study and invited them to participate. Women were assured that their decision to participate in the study would have no impact on their receipt of services from the agency. Given that the initial hours after leaving one's home and entering a shelter program can be an emotionally and physically exhausting time, shelter residents were not approached until they had been in shelter at least 24 hr.

The majority of interviews were conducted at the agencies in private rooms after informed consent was obtained. A few women opted to be interviewed at home. Interviews were tape-recorded to ensure coding accuracy, if permission was granted. Women were compensated \$10 for participating. Interviews lasted 1 hr on average.

Results

Participants

Participants ranged in age from 18 years to 85, with an average age of 35 ($SD = 10.4$). Overall, 48% of the women were African American, 45% White, 5% Hispanic/Latina, and 1% Asian American. Furthermore, 88% of the women had completed high school and/or college. At the time of the interview, 63% of the women were unemployed; 21% had a full-time job; and 16% were employed part-time. Over half the women (57%) reported an annual family income of less than \$15,000, whereas 20% lived in a household earning between \$15,000 and \$30,000 and 23% reported more than \$30,000 in family income per year.

The average woman in the sample had been involved with her abusive partner for 8 years and had two minor children. At the time that the abuse occurred, 81% of the women were living with their partners; 30% of whom were married. Demographics are reported in Table 1.

All the women had experienced psychological abuse, and 98% had suffered physical abuse during the last 6 months of their relationships. Similarly, 99% of the women had experienced economic abuse at some point during their relationships. The types of physical abuse most commonly experienced included pushing and shoving (82%) and grabbing (79%), whereas the most frequently reported forms of psychological abuse included yelling and screaming (99%) and name-calling (98%). Over half the women had been sexually assaulted (57%), and 65% had been strangled by their intimate partners.

Final Scale Construction

The goal in constructing the final SEA was to create an instrument that was brief, reflective of a broad range of economically abusive tactics, and widely applicable to respondents. Toward this end, several criteria were used to guide the scale construction

Table 1
Demographics of the Sample (in Percentages)

Demographics	%
Age	
18-24	15
25-34	36
35-44	32
45-54	13
55 and over	4
Race	
African American/Black	48
Caucasian/White	45
Hispanic/Latina	5
Asian American	1
Other	1
Education	
Some high school	22
High school/GED	29
Some college	32
College graduate / trade school	17
Employment	
Unemployed	63
Employed part-time	16
Employed full-time	21
Income	
Under \$5,000	25
\$5,001-\$15,000	32
\$15,001-\$30,000	20
\$30,001-\$50,000	8
\$50,001 and over	15
Children	
None	21
1	19
2-3	45
4 and over	14
Relationship status	
Married and living together	30
Ex-partner/divorced	5
Girlfriend-boyfriend and living together	50
Girlfriend-boyfriend but not living together	12
Other	3
Length of relationship	
Less than 1 year	13
13 months-5 years	39
61 months-10 years	22
121 months-15 years	12
Over 15 years	13

Note: *N* = 103.

process. As an initial criterion, the applicability of the items was considered; items that were not applicable to more than 25% of women in the sample were removed. In total, 37 items were removed because of inapplicability, including all items pertaining to school interference and items making reference to children. Once these items were removed, the expectation maximization method was used to provide estimates for the remaining missing data, to facilitate psychometric analysis with the full sample. Expectation maximization is a commonly used method for estimating missing data (Schafer & Graham, 2002). In this sample, the expectation maximization method was used to estimate 4% of the values in the data matrix. Little's Missing Completely at Random (2002) test was nonsignificant ($p = 1.00$) indicating that the pattern of missing data was not significantly different from a random pattern and providing support for handling the missing values as "ignorable."

Once the missing values were estimated, the following criteria were used to reduce the pool of remaining items: item clarity, psychometric properties of items, and adequate coverage of the economic abuse dimensions. First, items were removed if they had been unclear or difficult for women to answer. For example, many women in the sample expressed difficulty responding to items that were not easily quantified according to frequency of occurrence, such as being prevented from getting a credit card or a vehicle of one's own. Second, item-total correlations and item means and standard deviations were taken into account in selecting items. For example, items with the highest item-total correlations were retained for further analysis, whereas items were removed if they had exceptionally low item-total correlations and/or were conceptually and empirically redundant with better-performing items. A third criterion to reduce the scale items included the conceptual contribution of each item. Specifically, to ensure that the final scale represented a range of economically abusive tactics, the unique conceptual contribution of each remaining item was taken into account. Overall, this process resulted in the removal of an additional 54 items.

Principal components analysis (PCA) with oblique rotation was then used with the remaining 29 items to determine the underlying factor structure of the SEA. Oblique rotation was used because it was expected that any emerging factors would be correlated. Before performing the PCA, data suitability for factor analysis was assessed. Examination of the correlation matrix revealed the presence of many coefficients of .30 or higher. The Kaiser-Meyer-Olkin value was .87, exceeding the recommended value of .60 (Kaiser, 1974), and Bartlett's Test of Sphericity (1954) reached statistical significance, supporting the factorability of the correlation matrix.

The PCA began with a review of the originally proposed theoretical framework, which defined economic abuse as behaviors that control a woman's ability to acquire, use, and maintain economic resources. Through the data collection process, it became clear that the guiding theoretical framework appeared accurate, at least anecdotally. Women's experiences of economic abuse tended to involve control over

their access to and use of resources, as well as economic exploitation that compromised resource maintenance. Thus, following Tabachnick and Fidell's recommendation (1996) that PCA be used to find a satisfactory solution with as few factors as possible that are consistent with the proposed theoretical framework, a three-factor solution was examined. Eleven items loaded highly onto the first factor; 11 items loaded highly onto the second factor; 4 items loaded highly onto the third factor; and 3 items loaded moderately onto two factors. The first factor accounted for 34.5% of the variance and included items that pertained to control over access to and use of resources. The second factor accounted for 10.8% of the variance and comprised items capturing economically exploitive tactics. The third factor accounted for 6.8% of the variance and comprised all the items pertaining to work interference.

For comparison purposes, a second PCA was performed but with two factors extracted. The two-factor solution revealed a clearer pattern, with most variables loading substantially onto only one component. Seventeen items loaded onto the first factor, which consisted of all the items involving actions that control access to and use of resources, and 11 items loaded onto the second factor, which included all of the economic exploitation items. One item, "Loan out your money or your shared money without your permission and/or knowledge," loaded moderately onto both factors. This item was dropped, and the analysis was rerun with the item excluded. In the end, the SEA consisted of 28 items containing two subscales: a 17-item Economic Control subscale, accounting for 34% of the variance, and an 11-item Economic Exploitation subscale, accounting for 11% of the variance (see appendix for the final measure).

Reliability of the Scale

The internal consistency of the SEA was assessed by examining the Cronbach's alpha coefficient and item-total correlations of the total scale and each of the two subscales. The total SEA had a reliability coefficient of .93, with corrected item-total correlations ranging from .31 to .69. The Economic Control and Economic Exploitation subscales also showed good internal consistency, with alpha coefficients of .91 and .89, respectively. The corrected item-total correlations of the Economic Control subscale ranged from .44 to .72, whereas the coefficients of the Economic Exploitation subscale ranged from .54 to .71.

To check the magnitude of cross-scale loadings, each item was correlated with the two subscales. As presented in Table 2, this analysis revealed that all the economic control items were more highly correlated with the Economic Control subscale than with the Economic Exploitation subscale, and all the economic exploitation items were more highly correlated with the Economic Exploitation subscale than with the Economic Control subscale. With the exception of two economic control items ("Do things to keep you from going to your job" and "Beat you up if you said you needed to go to work"), the economic control and economic exploitation items were more

highly correlated with their own subscales than with the measures of physical or psychological abuse. Taken together, the factor analysis and correlational analyses strongly supported the existence of two distinct subscales.

Scale Validity

Correlation and regression analyses were used to examine the construct validity of the SEA. Table 3 depicts the correlations among the entire SEA; the two SEA subscales; the measures of physical abuse, psychological abuse, and economic hardship; and the demographic variables of age, race (dichotomously coded as 1 = *White*, 2 = *non-White*), and income. The correlation between the subscales was significant but of moderate strength ($r = .51$), indicating that although related, the subscales measure unique constructs. In addition, the SEA was not significantly correlated with age, race, or income. In fact, the correlations were all quite low. The lack of correlation between these demographic characteristics and the SEA suggests that the SEA shows no bias across these dimensions.

The SEA was positively correlated with the modified CTS ($r = .61, p < .01$) and the PMWI ($r = .58, p < .01$), indicating that higher levels of economic abuse are significantly related to higher levels of physical and psychological abuse. The correlation between the SEA subscales and the modified CTS and the PMWI were also positive and significant. Specifically, the Economic Control subscale was positively correlated with physical abuse ($r = .52, p < .01$) and psychological abuse ($r = .56, p < .01$), indicating that the more physical and psychological abuse that a woman experienced, the more that her partner controlled her access to and use of economic resources. Similarly, the positive correlation between the Economic Exploitation subscale of the SEA and the modified CTS ($r = .54, p < .01$) and the PMWI ($r = .42, p < .01$) suggests that the women who suffered higher levels of physical and psychological abuse were more economically exploited by their partners. Although the correlations between the measures of physical and psychological abuse and the SEA were all positive, the fact that they were of only moderate strength (ranging from .42 to .61) is evidence that economic abuse is a unique construct in need of a separate measure.

The construct validity of the SEA was further examined by assessing the relationship between the SEA and economic hardship. It was expected that higher economic abuse would be related to more economic problems. The Economic Hardship Index was derived from a pool of 24 items assessing the degree of economic difficulty experienced by survivors of abuse since their relationships with their abusers began. After reliability analysis, 11 of the 24 items were removed because of low item-total correlations. The resulting 13-item scale demonstrated good internal consistency, with an alpha coefficient of .86. As Table 4 illustrates, the women in the sample had experienced a range of economic problems since their relationships began. For example, the majority of the women struggled to find and maintain affordable housing. Specifically, 80% of women indicated that they had had trouble finding an

Table 2
Item–Total and Item–Scale Correlations
for Scale of Economic Abuse (SEA)

Economic Control	Control	Exploit	SEA	Physical	Psych
1. Steal the car keys or take the car so you couldn't go look for a job or go to a job interview.	.552**	.321**	.515**	.283**	.349**
2. Do things to keep you from going to your job.	.441**	.345**	.458**	.448**	.485**
3. Beat you up if you said you needed to go to work.	.453**	.285**	.435**	.546**	.243*
4. Threaten you to make you leave work.	.483**	.203*	.411**	.469**	.213*
5. Demand that you quit your job.	.541**	.219*	.559**	.369**	.350**
6. Do things to keep you from having money of your own.	.625**	.316**	.559**	.253**	.436**
7. Take your paycheck, financial aid check, tax refund check, disability payment, or other support payments from you.	.632**	.528**	.676**	.469**	.342**
8. Decide how you could spend money rather than letting you spend it how you saw fit.	.722**	.449**	.690**	.404**	.481**
9. Demand to know how money was spent.	.680**	.387**	.631**	.301**	.463**
10. Demand that you give him receipts and/or change when you spent money.	.612**	.272**	.525**	.314**	.372**
11. Keep you from having the money you needed to buy food, clothes, or other necessities.	.637**	.417**	.619**	.272**	.419**
12. Hide money so that you could not find it.	.605**	.317**	.546**	.316**	.289**
13. Keep you from having access to your bank accounts.	.569**	.338**	.535**	.382**	.241*
14. Keep financial information from you.	.603**	.236*	.501**	.167	.332**
15. Make important financial decisions without talking with you about it first.	.608**	.345**	.563**	.224*	.402**
16. Make you ask him for money.	.595**	.267**	.514**	.245*	.395**
17. Threaten you or beat you up for paying the bills or buying things that were needed.	.521**	.358**	.516**	.363**	.365**
Economic Exploitation					
1. Take money from your purse, wallet, or bank account without your permission and/or knowledge.	.438**	.633**	.594**	.518**	.411**
2. Force you to give him money or let him use your checkbook, ATM card, or credit card.	.508**	.641**	.648**	.431**	.295**
3. Steal your property.	.348**	.607**	.519**	.433**	.428**
4. Pay bills late or not pay bills that were in your name or in both of your names.	.469**	.637**	.618**	.318**	.429**
5. Build up debt under your name by doing things like use your credit card or run up the phone bill.	.246*	.577**	.435**	.388**	.215*
6. Refuse to get a job so you had to support your family alone.	.089	.537**	.309**	.246*	.104
7. Gamble with your money or your shared money.	.430**	.580**	.566**	.406**	.254**
8. Have you ask your family or friends for money but not let you pay them back.	.421**	.620**	.577**	.329**	.290**
9. Convince you to lend him money but not pay it back.	.269**	.650**	.483**	.268**	.265**
10. Pawn your property or your shared property.	.412**	.614**	.568**	.467**	.257**
11. Spend the money you needed for rent or other bills.	.346**	.713**	.565**	.336**	.261**

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

Table 3
Correlations Among Scale of Economic Abuse (SEA), Abuse, Economic Hardship, and Demographic Variables Demonstrating Scale Validity

	SEA	Control	Exploit	Physical	Psych	EHI	Age	Race	Income
SEA	1.000								
Control	.905**	1.000							
Exploit	.830**	.514**	1.000						
Physical	.608**	.524**	.540**	1.000					
Psych	.575**	.562**	.422**	.417**	1.000				
EHI	.523**	.403**	.527**	.194	.208*	1.000			
Age	-.156	-.110	-.169	-.085	-.054	-.188	1.000		
Race	-.158	-.085	-.177	.022	-.193	-.183	-.118	1.000	
Income	-.090	-.043	-.124	-.187	-.081	-.162	.374**	-.171	1.000

Note: $N = 103$. EHI = Economic Hardship Index.

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

affordable place to live, whereas 86% had to stay with family or friends or in a shelter because they could not find a place of their own. Also, over half (52%) of the women had been evicted or had a house foreclosed. In addition to having housing problems, many of the women had trouble paying their bills and providing food and other necessities for their families. In fact, 53% of the women had gone as far as pawning or selling their property so that they could pay bills and provide food for their families, and 61% had had their telephone, electricity, and other utilities shut off.

Correlation analysis revealed a significant positive relationship between economic abuse and economic hardship ($r = .52, p < .01$). The Economic Control subscale of the SEA had a significant positive correlation with economic hardship ($r = .40, p < .01$), indicating that the women whose access to and use of resources are controlled by their abusive partners tend to experience a greater amount of financial hardship. The Economic Exploitation subscale was also significantly correlated with economic hardship ($r = .53, p < .01$), meaning that women whose economic resources are more seriously compromised as a result of their partners' actions tend to experience a higher degree of financial difficulty (see Table 3).

Hierarchical multiple regression was used to explore the relationship between economic problems and economic abuse. Specifically, three models were tested to examine the unique contribution of each SEA subscale, as well as the total SEA, to predict women's economic hardship, after controlling for the effects of women's demographic characteristics (age, race, and income) and levels of physical and psychological abuse.

Model 1 regressed the economic hardship scores onto the Economic Control subscale of the SEA. As shown in Table 5, independent variables were entered in four

Table 4
Psychometric Properties and Item Frequencies
for the Economic Hardship Index

Scale Item: Retained Items	<i>M</i>	<i>SD</i>	CITC	%
1. Have you had trouble finding an apartment or house you could afford?	.80	.41	.54	80
2. Have you had to stay with friends or family or in a shelter because you could not find a place to live?	.86	.34	.42	86
3. Have you had trouble getting a house, apartment, vehicle, or credit card because of your credit?	.83	.37	.46	84
4. Have you been evicted from a place you were renting or had your house foreclosed?	.51	.50	.57	52
5. Has your landlord ever threatened to evict you because you could not pay your rent?	.52	.50	.65	52
6. Have you had trouble buying food or other necessities for your family?	.73	.45	.54	73
7. Have you had to borrow money to pay rent or other bills because you did not have the money to pay them when they were due?	.80	.41	.49	80
8. Have you asked a community agency for help to pay your rent or other bills?	.75	.44	.55	75
9. Have you sold or pawned your property because you needed money for rent, bills, or other necessities?	.53	.50	.49	53
10. Have you been harassed by people/businesses you owe money to?	.70	.46	.51	70
11. Have you had trouble with your credit rating?	.81	.40	.49	81
12. Has your telephone, electricity, or other utilities ever been turned off?	.61	.49	.65	61
13. Has your credit rating made it difficult to get a phone?	.51	.50	.51	52

$\alpha = .86$, $M = 9.0$, $SD = 3.6$

Note: 0 = *no*, 1 = *yes*; CITC = corrected item–total correlation.

blocks. Controlling for the effects of the women's age, race, and income (Block 1), their levels of physical and psychological abuse (Block 2), and their degrees of economic exploitation in their relationships (Block 3), Model 1 tested whether economic control (Block 4) significantly predicted economic hardship.

This model accounted for 37% of the variance ($R^2 = .373$) in the economic hardship scores. The beta value associated with the economic exploitation variable was .503 ($p < .05$), indicating that women who scored one standard deviation higher on economic exploitation had, on average, scored a half standard deviation higher (.503) on economic hardship. The R^2 change attributed to the addition of the Economic Exploitation subscale was .203, significant at $p < .001$, indicating that exploitation accounted for an additional 20% of the variance in economic problems

Table 5
Summary of Multiple Regression Predicting
Economic Hardship (Model 1)

Predictors	Standardized β	<i>t</i>	R^2 Change
Block 1			
Age	-.062	-.69	.095
Race	-.139	-.136	
Income	-1.63	-1.51	
Block 2			
Physical abuse	-.203	-1.91	.034
Psychological abuse	-.118	-1.16	
Block 3			
Exploitation subscale	.503*	4.84*	.203*
Block 4			
Control subscale	.280**	2.52**	.042**
Total R^2	.373		
Total <i>F</i>	7.53*		

Note: Coefficients were from the final block, with all the variables in the model.

* $p < .001$. ** $p < .05$.

after the effects of age, race, and income and physical and psychological abuse had been removed.

For economic control, beta was .28, indicating that women who scored one standard deviation higher on economic control had, on average, scored about a quarter standard deviation (.28) higher on economic hardship. The R^2 change after the addition of the Economic Control subscale to the model was .042, significant at $p < .05$, meaning that economic control accounted for 4% of the variance in economic hardship scores, after the effects of age, race, income, physical and psychological abuse, and economic exploitation were removed.

Model 2 reversed the entry order of the two SEA subscales, with economic exploitation being added last to examine the unique contribution of the Economic Exploitation subscale. In this model, after the effects of demographics, physical and psychological abuse, and economic control were taken into account, economic exploitation accounted for an additional 15.5% of the variance in economic hardship scores (R^2 change = .155, $p < .001$). Furthermore, examination of the beta coefficients associated with the Economic Control subscale ($\beta = .280$) and the Economic Exploitation subscale ($\beta = .503$) revealed that economic exploitation made the strongest unique contribution to the prediction of economic difficulties.

In addition to examining the unique contribution of each SEA subscale to the prediction of economic hardship, a third model was tested to assess the predictive power of the total SEA. Variables for Model 3 were entered in three blocks: The demographic variables (age, race, and income) were entered as controls in the first block;

physical and psychological abuse were entered as controls in the second block; and the SEA was entered in the third block. This model accounted for approximately 35% of the variance ($R^2 = .348$) in economic hardship scores. Beta was .674, indicating that women who scored one standard deviation higher on economic abuse scored, on average, .67 standard deviations higher on economic difficulties. The R^2 change attributed to the addition of the SEA was .219, significant at $p < .001$, meaning that economic abuse accounted for about 22% of the variance in economic hardship scores, after the effects of age, race, income, and physical and psychological abuse were removed.

Discussion

The findings of this study provide evidence for the reliability and validity of the SEA as an instrument to measure economic abuse as a distinct form of abuse. This scale is unique in that it is the first to tap a range of economically abusive tactics as a means of assessing the degree of economic abuse experienced in an abusive relationship. Whereas previous measures of abuse include a limited number of items tapping economic abuse or focus on one form of economic abuse, the SEA includes 28 items, 17 of which capture behaviors that control a woman's access to and use of resources and 11 that capture economically exploitive behaviors. These two dimensions, economic control and economic exploitation, have been shown to be meaningfully distinct and useful for predicting the degree of economic hardship experienced by women with abusive partners. The SEA will be useful for gaining a complete picture of the ways in which economic abuse affects women's lives. Such information is needed to inform the development of interventions tailored to meet the unique needs of women affected by economic abuse.

This study also confirmed the need for a scale of economic abuse. Specifically, all the women interviewed had suffered psychological abuse; 98% had experienced physical abuse during the last 6 months of their relationships; and an astounding 99% of the women were subjected to some form of economic abuse at some point during their relationships. In other words, almost every woman had been involved with a partner who controlled her use of or access to economic resources and/or took advantage of her economically. These findings provide evidence that economic abuse is a distinct yet common form of harm experienced by women in abusive relationships. Furthermore, these findings empirically demonstrate that economic abuse is a significant component of the broad system of tactics used by abusive men to gain power and maintain control over their partners. Thus, additional research is warranted to examine the ways in which women experience economic abuse and the consequences that this form of abuse has on women's lives.

The findings of this study have important implications for practitioners who work with survivors of intimate partner abuse. This study provides evidence of a link between the abuse that women experience and the economic hardships that they face. Before

participating in the interviews, many women had not made this connection between their financial difficulties and their partners' actions. Consequently, the interview process served as an awakening for many of the women. Their reactions to this realization ranged from sadness to outrage. Some shared feelings of self-blame, whereas others communicated a sense of relief in this new perspective. Most expressed frustration with the short-term implications and potential long-term consequences that they were to endure. They wanted answers; they wanted justice; they wanted something to be done.

This is where the work of specially trained practitioners is vital. Advocates play a central role in educating women about the system of abusive tactics used by batterers, as well as assisting women with their immediate financial needs. As shown, these issues are closely connected. Thus, it is important for practitioners to understand and attend to the various contextual factors contributing to women's financial difficulties. Educational and advocacy efforts should be focused at both the individual level and the community. At the individual level, advocates can help women understand the impact of the abuse on their financial standing and work to garner resources and restore their economic health. At the community level, practitioners can advocate in the community with and on behalf of women whose financial health has been compromised by abusive partners—for example, by intervening with employers, utility companies, landlords, community organizations, and financial institutions in an effort to improve how the system responds to women with economically abusive partners.

Findings need to be considered in light of the study's limitations. The majority of the women in the sample were either African American or White. They were primarily low-income women, and all were heterosexual and receiving services from a domestic abuse organization. As a result, the findings do not necessarily reflect the experiences of other groups of women. For example, it is possible that the nature and consequences of economic abuse differ for women from ethnic minority groups, middle- to high-income earners, women with disabilities, lesbian women, and informal help-seeking women. Additional studies of economic abuse involving more diverse samples of women are needed to understand the unique experiences of various groups of women and to assess the validity of the SEA.

The low-income status of the majority of women in this sample raises an additional concern. With more than three quarters of the women reporting a family income of under \$20,000, one question involves whether the financial hardships reported on the Economic Hardship Index represent chronic financial problems stemming from insufficient income rather than economic abuse. However, the empirical findings of this study and the women's personal accounts strongly support the relationship between economic hardship and economic abuse. After responding to the economic hardship items, respondents were asked what they attributed their financial difficulties to: Only 5% of the women stated that their partners were not at all responsible for their financial difficulties, whereas 76% stated that their partners were very much or completely responsible for the economic hardships that they had

faced. Correlation analyses showed that the level of economic abuse experienced was significantly correlated with the women's attribution of their economic struggles to their partners ($r = .296, p < .01$). In other words, women who experienced higher levels of economic abuse placed greater responsibility for their economic hardships on their abusers. However, because the study is based on cross-sectional data, a causal link between economic abuse and economic difficulties cannot be inferred. Longitudinal studies that examine the effects of economic abuse are needed.

In addition, the sample was limited in the number of women who had attended or attempted to attend school and in the number of women who had children in common with the abuser. The underrepresentation on these characteristics resulted in the exclusion of all items pertaining to school interference and tactics involving children. Thus, although the SEA captures a range of economically abusive tactics, it is missing these important types of economic abuse. This omission is potentially significant, given the frequency with which school interference and abuse tactics involving children are discussed in the literature (Anderson et al., 2003; Curcio, 1997; Moe & Bell, 2004; Ptacek, 1997; Raphael, 1996; Riger et al., 2001; Shepard & Pence, 1988; Tolman, 1989; Tolman & Raphael, 1997) and cited by practitioners and survivors. Accordingly, such tactics need to be taken into consideration in future studies examining economic abuse.

The most significant limitation of the study stems from an inconsistency in the time frames used as reference points for the respondents' reports of their experiences of abuse and economic difficulties. All the women reported their economic hardship and economic abuse from the time that their relationships began with their abusive partners. In comparison, the occurrence of physical and psychological abuse was reported for the last 6 months of their relationships. It is possible that there were differences in the physical and psychological abuse that women experienced earlier in the relationships—that is, before the 6-month time frame. Such differences may have changed the women's scores on the PMWI and CTS, thus affecting the relationship between these measures and economic abuse and economic hardship. Although this inconsistent time frame is not ideal, it was necessary given the nature of the economic abuse items. Specifically, many of the original economic abuse items capture events that occur with low regularity (e.g., signing a lease, buying a car); thus, the application of a 6-month time frame would not capture women's full experiences of economic abuse within their relationships. However, the significance of this limitation is minimized in the final scale, with the majority of items tapping events that would regularly occur. Future research could determine whether the use of a more specified time frame more effectively captures women's experiences of economic abuse as measured by the SEA.

Despite these limitations, this study represents an important step toward gaining a full understanding of the complexity of intimate partner abuse. Women not only experience physical, psychological, and sexual forms of abuse but are economically terrorized and controlled by their abusive partners. The nature and frequency of economic abuse deserves examination, as does the impact that this form of abuse has on women's

short- and long-term well-being. Such information can be used to develop interventions and garner resources for use by women whose physical, emotional, and economic health has been compromised by an economically controlling and exploitive partner.

Appendix: Scale of Economic Abuse

Directions: I'm going to go through a list of things some men do to hurt their partner or ex-partner financially. Could you tell me, to the best of your recollection, how frequently your partner or ex-partner has done any of the following things since your relationship began?

1 = *never*, 2 = *hardly ever*, 3 = *sometimes*, 4 = *often*, 5 = *quite often*, 8 = *not applicable*, 9 = *prefer not to answer*

1. Steal the car keys or take the car so you couldn't go look for a job or go to a job interview.
 2. Do things to keep you from going to your job.
 3. Beat you up if you said you needed to go to work.
 4. Threaten you to make you leave work.
 5. Demand that you quit your job.
 6. Make you ask him for money.
 7. Take money from your purse, wallet, or bank account without your permission and/or knowledge.
 8. Force you to give him money or let him use your checkbook, ATM card, or credit card.
 9. Steal your property.
 10. Do things to keep you from having money of your own.
 11. Take your paycheck, financial aid check, tax refund check, disability payment, or other support payments from you.
 12. Decide how you could spend money rather than letting you spend it how you saw fit.
 13. Demand to know how money was spent.
 14. Demand that you give him receipts and/or change when you spent money.
 15. Keep you from having the money you needed to buy food, clothes, or other necessities.
 16. Hide money so that you could not find it.
 17. Gamble with your money or your shared money.
 18. Have you ask your family or friends for money but not let you pay them back.
 19. Convince you to lend him money but not pay it back.
 20. Keep you from having access to your bank accounts.
 21. Keep financial information from you.
 22. Make important financial decisions without talking with you about it first.
 23. Threaten you or beat you up for paying the bills or buying things that were needed.
 24. Spend the money you needed for rent or other bills.
 25. Pay bills late or not pay bills that were in your name or in both of your names.
 26. Build up debt under your name by doing things like use your credit card or run up the phone bill.
 27. Refuse to get a job so you had to support your family alone.
 28. Pawn your property or your shared property.
-

References

- Adams, C. (1993). I just raped my wife! What are you going to do about it, pastor? In E. Buchwald, P. Fletcher, & M. Roth (Eds.), *Transforming a rape culture* (pp. 57-86). Minneapolis, MN: Milkweed Editions.
- Aguilar, R. J., & Nightingale, N. N. (1994). The impact of specific battering experiences on the self-esteem of abused women. *Journal of Family Violence, 9*, 35-45.
- Aguirre, B. E. (1985). Why do they return? Abused wives in shelters. *Social Work, 30*, 350-354.
- Anderson, M. A., Gillig, P. M., Sitaker, M., McCloskey, K., Malloy, K., & Grigsby, N. (2003). "Why doesn't she just leave?": A descriptive study of victim reported impediments to her safety. *Journal of Family Violence, 18*, 151-155.
- Arias, I., & Pape, K. T. (1999). Psychological abuse: Implications for adjustment and commitment to leave violent partners. *Violence and Victims, 14*, 55-67.
- Barnett, O. W., & LaViolette, A. D. (1993). *It could happen to anyone: Why battered women stay*. Newbury Park, CA: Sage.
- Bartlett, M. S. (1954). A note on the multiplying factors for various chi square approximations. *Journal of the Royal Statistical Society, 16*, 296-298.
- Bergen, R. K. (1996). *Wife rape: Understanding the response of survivors and service providers*. Thousand Oaks, CA: Sage.
- Brandwein, R. A., & Filiano, D. M. (2000). Toward real welfare reform: The voices of battered women. *Afflia, 15*, 224-243.
- Brewster, M. P. (2003). Power and control dynamics in prestalking and stalking situations. *Journal of Family Violence, 18*, 207-217.
- Brown, G. W., & Moran, P. M. (1997). Single mothers, poverty and depression. *Psychological Medicine, 27*, 21-33.
- Browne, A. (1987). *When battered women kill*. New York: Free Press.
- Browne, A. (1993). Violence against women by male partners: Prevalence, outcomes, and policy implications. *American Psychologist, 48*, 1077-1087.
- Campbell, J. C. (1989). Women's responses to sexual abuse in intimate relationships. *Health Care for Women International, 10*, 335-346.
- Campbell, J. C., & Alford, P. (1989). The dark consequences of marital rape. *American Journal of Nursing, 89*, 946-949.
- Cascardi, M., O'Leary, K. D., Lawrence, E. E., & Schlee, K. A. (1995). Characteristics of women physically abused by their spouses and who seek treatment regarding marital conflict. *Journal of Consulting and Clinical Psychology, 63*, 616-623.
- Chalmers, L., & Smith, P. (1984). Wife battering: Psychological, social, and physical isolation and counteracting strategies. *Review of Canadian Studies, 1*, 221-244.
- Coker, A. L., Smith, P. H., Bethea, L., King, M. R., & McKeown, R. E. (2000). Physical health consequences of physical and psychological intimate partner violence. *Archives of Family Medicine, 9*, 451-457.
- Correia, A., & Rubin, J. (2001). *Housing and battered women: A case study of domestic violence programs in Iowa*. Retrieved February 7, 2008, from http://new.vawnet.org/category/Main_Doc.php?docid=106
- Curcio, W. (1997). *The Passaic County study of AFDC recipients in a welfare-to-work program: A preliminary analysis*. Ann Arbor: University of Michigan.
- Davies, J., & Lyon, E. (1998). *Safety planning with battered women*. Thousand Oaks, CA: Sage.
- Davis, M. F. (1999). The economics of abuse: How violence perpetuates women's poverty. In R. A. Brandwein (Ed.), *Battered women, children, and welfare reform: The ties that bind* (pp. 17-30). Thousand Oaks, CA: Sage.
- Dobash, R. E., & Dobash, R. (1979). *Violence against wives: A case against the patriarchy*. New York: Free Press.

- Dobash, R., Dobash, R. E., Wilson, M., & Daly, M. (1992). The myth of sexual symmetry in marital violence. *Social Problems, 39*, 71-91.
- Dunn, J. R., & Hayes, M. V. (2000). Social inequality, population health, and housing: A study of two Vancouver neighborhoods. *Social Science and Medicine, 51*, 563-587.
- Finkelhor, D., & Yllo, K. (1985). *License to rape: Sexual abuse of wives*. New York: Holt, Rinehart, & Winston.
- Follingstad, D. R., Rutledge, L. L., Berg, B. J., Hause, E. S., & Polek, D. S. (1990). The role of emotional abuse in physically abusive relationships. *Journal of Family Violence, 5*, 107-120.
- Frieze, I. (1983). Investigating the causes and consequences of marital rape. *Signs, 8*, 532-533.
- Golding, J. M. (1999). Intimate partner violence as a risk factor for mental disorders: A meta-analysis. *Journal of Family Violence, 14*, 99-132.
- Gondolf, E. W., & Fisher, E. R. (1988). *Battered women as survivors: An alternative to treating learned helplessness*. Lexington, MA: Lexington Books.
- Goodkind, J. R., Sullivan, C. M., & Bybee, D. I. (2004). A contextual analysis of battered women's safety planning. *Violence Against Women, 10*, 514-533.
- Hall, L. A., Williams, C. A., & Greenberg, R. S. (1985). Supports, stressors, and depressive symptoms in low-income mothers of young children. *American Journal of Public Health, 75*, 518-522.
- Hanneke, C., Shields, N., & McCall, G. J. (1986). Assessing the prevalence of marital rape. *Journal of Interpersonal Violence, 1*, 350-362.
- Hofeller, K. H. (1982). *Social, psychological, and situational factors in wife abuse*. Palo Alto, CA: R & E Research Associates.
- Hudson, W. W., & McIntosh, S. R. (1981). The assessment of spouse abuse: Two quantifiable dimensions. *Journal of Marriage and the Family, 43*, 873-885.
- Johnson, I. M. (1992). Economic, situational, and psychological correlates of the decision-making process of battered women. *Families in Society, 73*, 168-176.
- Johnson, I. M. (1995). Community attitudes: A study of definitions and punishment of spouse abusers and child abusers. *Journal of Criminal Justice, 23*, 477-487.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika, 39*, 31-36.
- Katz, J., Arias, I., & Beach, R. H. (2000). Psychological abuse, self-esteem, and women's dating relationship outcomes: A comparison of the self-verification and self-enhancement perspectives. *Psychology of Women, 24*, 349-357.
- Khan, F. I., Welch, T. L., & Zillmer, E. A. (1993). MMPI-2 profiles of battered women in transition. *Journal of Personality Assessment, 60*, 100-111.
- Kilpatrick, D. G., Best, C. C., Saunders, B. E., & Vernon, L. J. (1988). Rape in marriage and in dating relationships: How bad is it for mental health? *Annals of the New York Academy of Sciences, 528*, 335-344.
- Labell, L. S. (1979). Wife abuse: A sociological study of battered women and their mates. *Victimology, 4*, 258-267.
- Little, R., & Rubin, D. (2002). *Statistical analysis with missing data* (2nd ed). New York: Wiley.
- Lloyd, S. (1997). The effects of domestic violence on women's employment. *Law and Policy, 19*, 139-167.
- Lloyd, S., & Taluc, N. (1999). The effects of male violence on female employment. *Violence Against Women, 5*, 370-392.
- Lynch, J. W., Kaplan, G. A., & Shema, S. J. (1997). Cumulative impact of sustained economic hardship on physical, cognitive, psychological, and social functioning. *New England Journal of Medicine, 337*, 1889-1895.
- Marshall, L. L. (1996). Psychological abuse of women: Six distinct clusters. *Journal of Family Violence, 11*, 379-409.
- Martin, D. (1976). *Battered wives*. San Francisco: Glide.
- McCallum, D. M., Arnold, S. E., & Bolland, J. M. (2002). Low-income African-American women talk about stress. *Journal of Social Distress and the Homeless, 11*, 249-263.
- McCaughey, J., Kern, D. E., Kolodner, K., Dill, L., Schroeder, A. F., DeChant, H. K., et al. (1995). The "battering syndrome": Prevalence and clinical characteristics of domestic violence in primary care internal medicine practices. *Annals of Internal Medicine, 123*, 737-746.

- McLeod, J. D., & Kessler, R. C. (1990). Socioeconomic status differences in vulnerability to undesirable life events. *Journal of Health and Social Behavior, 31*, 162-172.
- Melbin, A., Sullivan, C. M., & Cain, D. (2003). Transitional supportive housing for women with abusive partners: Battered women's perspectives and recommendations. *Afflia, 18*, 445-460.
- Moe, A. M., & Bell, M. P. (2004). Abject economics: The effects of battering and violence on women's work and employability. *Violence Against Women, 10*, 29-55.
- Okun, L. (1988). Termination or resumption of cohabitation in women battering relationships: A statistical study. In G. T. Hotaling & D. Finkelhor (Eds.), *Coping with family violence: Research and policy perspectives* (pp. 107-119). Thousand Oaks, CA: Sage.
- Orava, T. A., McLeod, P. J., & Sharpe, D. (1996). Perceptions of control, depressive symptomatology and self-esteem of women in transition from abusive relations. *Journal of Family Violence, 11*, 167-186.
- Pagelow, M. D. (1981). *Woman-battering: Victims and their experiences*. Beverly Hills, CA: Sage.
- Pagelow, M. D. (1992). Adult victims of domestic violence. *Journal of Interpersonal Violence, 7*, 87-120.
- Pearson, J., Thoennes, N., & Griswold, E. A. (1999). Child support and domestic violence: The victims speak out. *Violence Against Women, 5*, 427-448.
- Pence, E., & Paymar, M. (1993). *Education groups for men who batter*. New York: Springer.
- Ptacek, J. (1997). The tactics and strategies of men who batter: Testimony from women seeking restraining orders. In A. P. Cardarelli (Ed.), *Violence between intimate partners: Patterns, causes, and effects* (pp. 104-123). Boston: Allyn & Bacon.
- Raphael, J. (1996). *Prisoners of abuse: Domestic violence and welfare receipt*. Chicago: Taylor Institute.
- Raphael, J., & Tolman, R. (1997). *Trapped by poverty, trapped by abuse*. Chicago: Taylor Institute and the University of Michigan.
- Riger, S., Ahrens, C., & Blickenstaff, A. (2001). Measuring interference with employment and education reported by women with abusive partners: Preliminary data. In K. D. O'Leary & R. D. Maiuro (Eds.), *Psychological abuse in violent domestic relations* (pp. 119-133). New York: Springer.
- Riger, S., Ahrens, C., Blickenstaff, A., & Camacho, J. (1999). *Obstacles to employment of women with abusive partners: A summary of select interview data* (Working Paper No. GCP-99-1). Chicago: University of Illinois at Chicago, Great Cities Institute.
- Rodenburg, F. A., & Fantuzzo, J. W. (1993). The measure of wife abuse: Steps toward the development of a comprehensive assessment technique. *Journal of Family Violence, 8*, 203-228.
- Russell, D. E. H. (1990). *Rape in marriage*. New York: Macmillan.
- Sable, M. R., Libbus, M. K., & Huneke, D. (1999). Domestic violence among AFDC recipients: Implications for welfare-to-work programs. *Afflia, 14*, 199-216.
- Sackett, L. A., & Saunders, D. G. (1999). The impact of different forms of psychological abuse on battered women. *Violence and Victims, 14*, 105-117.
- Schafer, J., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7*, 147-177.
- Schechter, S., & Gary, L. T. (1988). A framework for understanding and empowering battered women. In M. A. Straus (Ed.), *Abuse and victimization across the life span* (pp. 240-253). Baltimore: Johns Hopkins University Press.
- Shepard, M. F., & Campbell, J. A. (1992). The Abusive Behavior Inventory: A measure of psychological and physical abuse. *Journal of Interpersonal Violence, 7*, 291-305.
- Shepard, M., & Pence, E. (1988). The effect of battering on the employment status of women. *Afflia, 3*, 55-61.
- Short, L. M., McMahon, P. M., Davis Chervin, D., Shelley, G. A., Lezin, N., Sloop, K. S., et al. (2000). Survivors' identification of protective factors and early warning signs for intimate partner violence. *Violence Against Women, 6*, 272-285.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics (CTS) Scale. *Journal of Marriage and the Family, 41*, 75-88.

- Street, A. E., & Arias, I. (2001). Psychological abuse and posttraumatic stress disorder in battered women: Examining the roles of shame and guilt. *Violence and Victims, 16*, 65-78.
- Stronks, K., Van de Mheen, H. D., & Mackenbach, J. P. (1998). A higher prevalence of health problems in low income groups: Does it reflect relative deprivation? *Journal of Epidemiology and Community Health, 52*, 548-557.
- Stronks, K., Van de Mheen, H., Van den Bos, J., & Mackenbach, J. P. (1997). The interrelationship between income, health and employment status. *International Journal of Epidemiology, 26*, 592-600.
- Strube, M. J., & Barbour, L. S. (1983). The decision to leave an abusive relationship: Economic dependence and psychological commitment. *Journal of Marriage and the Family, 45*, 785-793.
- Strube, M. J., & Barbour, L. S. (1984). Factors related to the decision to leave an abusive relationship. *Journal of Marriage and the Family, 46*, 837-844.
- Sullivan, C. M., Parisian, J. A., & Davidson, W. (1991, August). *Index of Spouse Abuse: Development of a measure*. Paper presented at the annual meeting of the American Psychological Association, San Francisco.
- Sullivan, C. M., Tan, C., Basta, J., Rumptz, M. H., & Davidson, W. S. (1992). An advocacy intervention program for women with abusive partners: Initial evaluation. *American Journal of Community Psychology, 20*, 309-332.
- Sutherland, C. A., Bybee, D. I., & Sullivan, C. M. (2002). Beyond bruises and broken bones: The joint effects of stress and injuries on battered women's health. *American Journal of Community Psychology, 30*, 609-636.
- Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics* (4th ed.). Boston: Allyn & Bacon.
- Tjaden, P., & Thoennes, N. (2000). *Extent, nature, and consequences of intimate partner violence: Findings from the National Violence Against Women Survey*. Washington, DC: U.S. Department of Justice, National Institute of Justice.
- Tolman, R. M. (1989). The development of a measure of psychological maltreatment of women by their male partners. *Violence and Victims, 4*, 159-177.
- Tolman, R. M. (1992). Psychological abuse of women. In R. T. Ammerman & M. Hersen (Eds), *Assessment of family violence: A clinical and legal sourcebook* (pp. 291-310). Oxford, UK: Wiley.
- Tolman, R. M. (1999). The validation of the Psychological Maltreatment of Women Inventory. *Violence and Victims, 14*, 25-37.
- Tolman, R. M., & Wang, H. (2005). Domestic violence and women's employment: Fixed effects models of three waves of women's employment study data. *American Journal of Community Psychology, 36*, 147-158.
- Vitanza, S., Vogel, L. C. M., & Marshall, L. L. (1995). Distress and symptoms of posttraumatic stress disorder in abused women. *Violence and Victims, 10*, 23-34.
- VonDeLinde, K. (2002). *How are domestic violence programs meeting the economic needs of battered women in Iowa? An assessment and recommendations*. Harrisburg, PA: National Resource Center on Domestic Violence.
- Walker, L. E. (1979). *The battered woman*. New York: Harper & Row.

Adrienne E. Adams is a doctoral student in ecological community psychology at Michigan State University. Her research interests center on economic justice for survivors of intimate partner abuse and evaluating community-based domestic abuse victim service programs.

Cris M. Sullivan is a professor of ecological and community psychology at Michigan State University and the director of evaluation for the Michigan Coalition Against Domestic and Sexual Violence. Since 1982, she has been an advocate and researcher in the movement to end violence against women. Her research has primarily involved examining the long-term effects of community-based interventions for battered women and their children and evaluating domestic violence and sexual assault victim service programs.

Deborah Bybee is a professor of research in ecological and community psychology at Michigan State University and an associate director of the Social Work Research Development Center at the University of Michigan. She has a primary interest in quantitative methods and how they can be used to understand complex, real-world phenomena, especially those that change over time. She has applied her methodological interests to a variety of areas, including advocacy for women with abusive partners, intervention with children who have witnessed domestic violence, housing assistance for individuals who are homeless and mentally ill, education for individuals with mental illness, and mothering by women who are coping with serious mental illness.

Megan R. Greeson is a graduate student in Michigan State University's ecological and community psychology doctoral program. Her research interests include studying the intersection of multiple forms of violence against women. She is interested in the experiences of and responses to women who have survived multiple forms of abuse throughout their lives, including survivors of intimate partner sexual abuse.