The Impact of Intimate Partner Violence on LowIncome Women's Economic Well-Being: The Mediating Role of Job Stability

Violence Against Women 18(12) 1345–1367 © The Author(s) 2013 Reprints and permission: sagepub.com/journalsPermissions.nav DOI: 10.1177/1077801212474294 vaw.sagepub.com



Adrienne E. Adams¹, Richard M. Tolman², Deborah Bybee¹, Cris M. Sullivan¹, and Angie C. Kennedy²

Abstract

This study sought to extend our understanding of the mechanisms by which intimate partner violence (IPV) harms women economically. We examined the mediating role of job instability on the IPV–economic well-being relationship among 503 welfare recipients. IPV had significant negative effects on women's job stability and economic well-being. Job stability was at least partly responsible for the deleterious economic consequences of IPV, and the effects lasted up to three years after the IPV ended. This study demonstrates the need for services and policies that address barriers to employment as a means of improving the economic well-being of low-income women with abusive partners.

Keywords

economic well-being, employment, intimate partner violence

In 1996, Congress passed welfare reform legislation that placed time restrictions on welfare receipt and was designed to move individuals into the paid labor market. Immediately, domestic violence advocates were concerned about the implications of this policy for women with abusive partners. While it is difficult for many women to move from welfare into stable employment that pays well enough to make ends meet, some women relying on the welfare system must also confront barriers created by an abusive partner (Raphael,

Corresponding Author:

Adrienne E. Adams, Department of Psychology, Michigan State University, East Lansing, MI 48824, USA. Email: adamsadr@msu.edu

Department of Psychology, Michigan State University, East Lansing, MI, USA

²School of Social Work, University of Michigan, East Lansing, MI, USA

1996). Many abusive men employ a range of control tactics that directly and indirectly interfere with women's efforts to find and sustain employment (Adams, Sullivan, Bybee, & Greeson, 2008; Swanberg, Logan, & Macke, 2005). For example, some batterers inflict physical and emotional pain to keep women from working (Moe & Bell, 2004) or show up at their partners' place of employment and harass them on the job. Survivors of abuse have reported that their batterers' actions make it difficult to concentrate on the job, contribute to a poor attendance record, and often result in job loss (Barusch & Taylor, 1999; Moe & Bell, 2004; Wettersten et al., 2004), and research has shown that welfare recipients who have experienced intimate partner violence (IPV) spend less time gainfully employed, earn less, and experience more material hardship compared to their nonabused counterparts (Lloyd & Taluc, 1999; Riger, Staggs, & Schewe, 2004; Romero, Chavkin, Wise, & Smith, 2003; Siefert, Heflin, Corcoran, & Williams, 2004; Tolman & Wang, 2005).

Given the nature and deleterious effects of IPV immediately and over time, advocates and critics of the welfare reform policy expressed concern that women who were experiencing IPV would struggle to sustain employment at a level necessary for self-sufficiency, would suffer financial hardship, and could ultimately be forced to remain in a relationship or return to an abusive partner in order to meet their financial needs (Brandwein & Filiano, 2000; Raphael, 1999; Raphael & Tolman, 1997). Further, advocates cautioned that sanctions associated with failing to meet work requirements could further jeopardize women's safety and compromise efforts to gain financial independence. The current study examined the lives of a longitudinal sample of women who were receiving public assistance at the start of welfare reform. Focusing on their experiences of IPV, level of job stability, and economic well-being (defined here as objective and anticipated material hardship, and access to job benefits), this study examined three questions: (1) To what extent does IPV negatively affect the job stability and economic well-being of low-income women; (2) To what extent does job stability explain the association between IPV and reduced economic well-being; and (3) If IPV does negatively affect women's job stability and economic wellbeing, how long do the effects last after the abuse ends?

Intimate Partner Violence and Women's Job Stability

A growing body of research is dedicated to understanding the impact of IPV on women's employment. Early on researchers focused on employment status (employed vs. not employed) as the central employment outcome; however, it quickly became evident that at any point in time a woman with an abusive partner was just as likely to have a job as any other woman (Browne, Salomon, & Bassuk, 1999; Honeycutt, Marshall, & Weston, 2001; Lloyd & Taluc, 1999; Tolman & Rosen, 2001). Instead, what distinguished women with abusive partners from their nonabused counterparts was their level of job stability (Browne et al., 1999; Tolman & Wang, 2005). To date, job stability has primarily been defined in terms of the amount of time women spend employed. However, we know that the abuse tactics batterers employ not only significantly diminish the overall amount of time women spend working in paid employment, but also contribute both directly and indirectly to job loss (Meisel, Chandler, & Rienzi, 2003; Moe & Bell, 2004; Romero et al.,

2003; Sable, Libbus, Huneke, & Anger, 1999; Shepard & Pence, 1988; Swanberg & Logan, 2005; Tolman & Raphael, 2000; Wettersten et al., 2004). It is important to consider job loss as a dimension of stability because even when the total amount of time employed is similar, cycling between many jobs in a short time might impact overall economic well-being very differently than one sustained job. For example, working nine months out of the year at one job is likely to be related to different economic outcomes than working nine months at four or five different jobs. In order to more fully capture the complex ways that IPV may affect women's employment, it is necessary to examine both amount of time employed as well as job loss.

IPV and Amount of Time Employed

Research conducted to date has shown that IPV can significantly reduce the amount of time women spend employed while the abuse is occurring and after the abuse ends. Several studies have examined the link between job instability and recent IPV. Meisel et al. (2003) reported that among a random sample of 632 women receiving public assistance, those who reported they were in need of domestic violence services during the previous year worked significantly fewer weeks over the course of that year compared to those who reported they were not in need of services. Using three years of data from the Illinois Family Study, a large-scale study of women receiving welfare, Riger et al. (2004) reported that higher levels of IPV over the three-year period were significantly related to fewer months worked during that same period. In a subsequent study, Staggs and Riger (2005) reported that women who had experienced abuse during the three years of the study spent the least amount of time working during those years compared to women with no abuse history, those with a past history of IPV, and women experiencing chronic IPV. Tolman and Wang (2005) also found that women's capacity to sustain employment was diminished when IPV was occurring. They examined women's annual work hours and found that, after controlling for health status, severe physical violence occurring over a one-year period significantly reduced the number of hours women worked in that year by 137 hours compared to women who had not experienced violence.

There is also evidence to suggest IPV can reduce the amount of time women spend working in the first years after the abuse ends. Browne et al. (1999) interviewed 285 low-income women recruited from shelters and a welfare office and found women's work histories were significantly affected by abuse. Women who had experienced physical violence were less likely to sustain employment at 30 hours per week for at least six months in the subsequent year. In another report of the Illinois Family Study findings, Staggs and colleagues (Staggs, Long, Mason, Krishnan, & Riger, 2007) found that women who had experienced abuse at year one of the study worked fewer months two years later compared to women who had not experienced abuse at year one.

Little is currently known about the effects of IPV on the amount of time women spend working three years or more after the abuse ends. The Illinois Family Study suggests that past IPV does not have lasting effects on the amount of time women spend working (Riger et al., 2004; Staggs & Riger, 2005); however, this conclusion is based on reports of abuse

that occurred at any point in respondents' adult lives. It is possible that with refined measurement of the timing of abuse, lasting effects of IPV on time employed may be detected. Taken together, this body of research suggests that the impact of IPV on women's employment is relatively immediate, but may also be felt for at least two years after the abuse ends.

IPV and Job Loss

In addition to reducing the amount of time women are able to spend engaged in paid employment, batterers have been shown to create job instability by contributing to job loss. In one of the earliest studies demonstrating the problem of job loss for women with abusive partners, Shepard and Pence (1988) reported on the effects of abuse on women's employment and found that out of 71 working women, 24% had lost a job because of recent abuse. Riger, Ahrens, and Blickenstaff (2000) interviewed women in a domestic violence shelter and found 52% were fired or quit a job because of abuse. Meisel et al. (2003) reported that a significantly greater proportion of the welfare recipients in their sample had lost a job within the past year if they had reported a need for domestic violence services within that year. Findings from three recent qualitative studies have found similar implications for job loss. Wettersten et al. (2004) found that 60% of women in their shelter-based sample had partners who actively prevented them from getting a job, forced them to quit, or got them fired from a job. Similarly, of the 19 domestic violence shelter residents Moe and Bell (2004) interviewed, 68% experienced abuse that included interference with work that resulted in the loss of a job, either due to termination or resignation. In Swanberg and Logan's (2005) community-based, qualitative study of the work experiences of 32 women who had experienced IPV in the past two years, 91% of women had quit or been fired from a job during that time. Slightly over half had resigned from at least one job, and about 41% had been fired. Among the reasons given for termination were "poor attendance at work, excessive personal phone calls, poor job performance, and the abuser showing up too many times" (p. 10). This is consistent with other studies that have shown concentration problems, distractions and interruptions, abuse-related emotional and physical health problems, and irregular attendance can make keeping a job especially difficult for women confronting abusive partners (Bell, 2003; Meisel et al., 2003; Moe & Bell, 2004; Romero et al., 2003; Sable et al., 1999; Swanberg & Logan, 2005; Tolman & Raphael, 2000; Wettersten et al., 2004).

Overwhelmingly, researchers have focused on the effects of recent IPV on job loss, and much less is known about sustained effects of IPV on job loss. Drawing on the findings of three studies, there is some evidence to suggest IPV may continue to contribute to job loss after the abuse ends. Reporting on the employment problems of survivors of abuse, including job loss, Shepard and Pence (1988) interviewed women attending a domestic violence support group and found that 48% were able to positively change their employment or school status after the abuse ended, while 52% were not. In a community sample of 824 women from a low-income Chicago neighborhood, Lloyd (1997) found that women who experienced IPV during their lifetime had significantly more job turnover in the past 12 months compared to women who had never been victimized by an intimate partner.

Findings from an annual longitudinal study of poor women in Washington State showed that women who had been severely physically victimized by an intimate partner in their adult life held significantly more jobs in the prior year (Smith, 2001). Collectively, research on IPV and job loss suggests sustaining a job can be a challenge when actively dealing with an abusive partner and possibly for some time after the abuse ends.

Intimate Partner Violence, Job Stability, and Women's Economic Well-Being

Research suggests that the employment instability that abuse creates can have significant implications for women's economic well-being, including material hardship and access to job benefits. IPV and job stability can contribute to difficulty meeting basic needs (i.e., material hardship) due to lost income, as well as decreased access to job benefits. Whether it is a few hours out of a day, a few days out of a week, or a few months out of the year, missed employment opportunities translate into lost income (Danziger, Heflin, Corcoran, Oltomans, & Wang, 2002). Lloyd (1997) found that low-income women who had experienced partner violence in the past 12 months had lower personal income than those who had not. Women who had suffered the most severe violence at the hands of an intimate partner, including being beaten or raped, had the lowest incomes. In a study of 1,383 welfare recipients in Washington, Smith (2000) reported that those who had experienced physical and sexual violence by an intimate partner in their adult life earned US\$3,900 less annually than women who had not experienced IPV. Meisel et al. (2003) randomly selected a group of 632 welfare recipients from two counties in California and found that over the course of a year women who reported being in need of domestic violence services had significantly lower earnings from employment than did other women.

Without the necessary income to meet their daily needs, women with abusive partners often experience and anticipate significant material hardship (Adams et al., 2008; Danziger et al., 2002; Tolman & Rosen, 2001). Studies have shown that many women in abusive relationships struggle to make ends meet and are even more likely to express concern about their current and future ability to provide for their families than other low-income women (Tolman, Danziger, & Rosen, 2002). It is common for women who have experienced domestic violence to report difficulty finding and maintaining affordable housing. Many end up having their utilities shut off or must turn to a community agency for help paying bills (Romero et al., 2003). Several studies have documented survivors' experiences of eviction and home foreclosure, doubling-up in homes with friends or relatives, and homelessness (Adams et al., 2008; Baker, Cook, & Norris, 2003; Brush, 2004). With limited income it also becomes increasingly difficult to put food on the table (Vozoriz & Tarasuk, 2003); food insufficiency has been found to be a significant problem for women with abusive partners (Brush, 2004; Corcoran, Heflin, & Siefert, 1999; Siefert et al., 2004; Tolman & Rosen, 1998). In one study with low-income women seeking services from domestic violence programs, Adams et al. (2008) asked women to what they attributed the material hardship they had faced, and 76% reported that their abusive partner was very much or completely responsible.

Not only does employment instability contribute to material hardship associated with limited income, but it can also make it difficult to secure benefits such as paid leave, health care, and retirement savings. Regardless of abuse status, individuals experiencing job loss and frequent bouts of unemployment typically go without the employment-related benefits that are important for the health and well-being of families. Many jobs, particularly lower-paying jobs, require individuals to work for a specified period of time before benefits begin. When one is moving in and out of jobs, it is likely that one will either not be at a job long enough to gain benefits or will lose benefits from one job and have to start the clock over with another employer (Moe & Bell, 2004; Romero et al., 2003). We know from previous research that women with abusive partners are less likely than other women to have health insurance (Vest, Catlin, Chen, & Brownson, 2002), they often lack assets such as savings accounts or retirement plans (Romero et al., 2003; Sanders, 2007), and they frequently do not have the benefit of sick days or vacation time (Moe & Bell, 2004). The disparity in access to job benefits may be in part due to the impact of abuse on women's job stability.

The Current Study

Prior research has established that sustaining employment is a significant challenge for low-income women who have been victimized by an intimate partner. These women do not spend as much time in paid employment as do nonabused women, and they experience more job loss. In addition, they struggle to make ends meet, expect to continue experiencing financial hardship, and often do not have access to important employment-related benefits such as health care, sick leave, and retirement. While these relationships have been established, the literature is limited in two important ways. First, studies examining recent IPV or IPV that ended within the prior two years suggest that there are both immediate and lasting economic consequences associated with abuse. However, as no known study has precisely measured the employment-related consequences of IPV that ended more than two years earlier, the question of how long the effects last after the IPV ends still remains. Second, there is some evidence to suggest that job instability associated with IPV is at least partly responsible for women's compromised economic well-being, but this has not been explicitly tested. To address these gaps, the current study empirically investigated the mediating role of job stability in explaining the immediate and lasting effects of IPV on the economic well-being of a longitudinal sample of women who were receiving financial assistance through Temporary Assistance to Needy Families (TANF) soon after its inception in 1997. As shown in Figure 1, women were categorized into groups based on the timing of their IPV experiences over the course of the seven years of the study. We hypothesized that IPV would be inversely related to job stability (path a), positively related to objective material hardship (path b), positively related to anticipated hardship (path c), and inversely related to job benefits (path d), such that the effects would be strongest for women experiencing the most recent abuse and attenuate over time. Further, we hypothesized that job stability would be inversely related to objective material hardship (path e), inversely related to anticipated hardship (path f), and positively related to job benefits

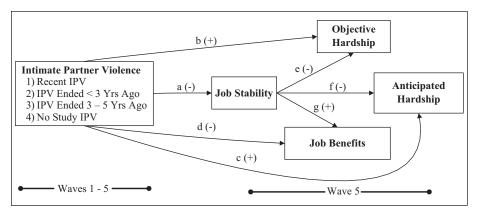


Figure 1. Conceptual Model.

(path g). Additionally, we expected job stability to partially mediate the hypothesized relationships between IPV and objective material hardship, anticipated material hardship, and job benefits.

Method

Participants

The Women's Employment Study was a longitudinal study with a sample of single mothers who received cash assistance from TANF in one urban county in Michigan in February of 1997. Stratified random sampling was used to proportionally select cases by zip code, race (non-Hispanic, white or African American) and age (18-54). Of the 874 women who met the selection criteria, 753 (86% response rate) participated in the Wave 1 interview in the fall of 1997. Wave 2 and Wave 3 interviews took place at one-year intervals and resulted in a 92% and 91% response rate, respectively. Two years after Wave 3, 91% of the remaining sample participated in the Wave 4 interview, and then two years later 93% of those women participated in the Wave 5 interview. A total of 536 women participated in all five waves of the study; the attrition rate was 29%.

Procedure and Measures

Face-to-face structured interviews were conducted by a group of specially trained interviewers. On average, the interview lasted one hour and assessed a wide range of economic, health, and life event domains. The following measures were used in this study:

Job stability. At Wave 5, women were asked, "How many times have you changed your main job, that is, changed employers since [the last interview]?" Responses ranged from 0 (no job change) to 7 (changed employers 7 times). Women were also asked to report whether they had worked for pay in each month since the last interview. On average, the number of

months between Wave 4 and Wave 5 interviews was 24.14 (SD = 1.46). The job stability variable was expressed as the number of months worked since the last interview divided by the number of job changes (plus a constant of 1 to remove the 0 value from the denominator). Hence, job stability was operationalized as the average number of months at any one job since the last interview. Scores ranged from 0 to 29, with a mean of 12.88 (SD = 9.3).

Objective material hardship at Wave 5 was measured through a 7-item summed index addressing experiences of material hardship in the following areas: (1) gas or electricity turned off, (2) phone disconnected, (3) moved in with someone to share expenses, (4) been evicted, (5) been homeless (6) food insufficiency in the past 12 months, (7) asked a charity or community group for help with food or shelter (M = 1.20, SD = 1.52).

Anticipated material hardship at Wave 5 was assessed with the item, "In the next two months, how much do you anticipate that you and your family will experience actual hardships such as inadequate housing, food, or medical care?" Responses were based on a 5-point Likert-type scale $(1 = not \ at \ all, 5 = a \ great \ deal; M = 2.04, SD = 1.26)$.

Job benefits at Wave 5 was computed as a sum of the number of job benefits offered by participants' current employer or recent employer if the participant was unemployed at the time of the interview but had been employed within three months of the interview. The benefits included paid sick days, paid vacation, a health plan or medical insurance, and a retirement program. Scores ranged from 0 (no benefits) to 4 (received all types of benefits), with a mean of 1.22 (SD = 1.56). Participants who were unemployed during the months between Waves 4 and 5 received a score of 0.

Intimate partner violence was assessed with a modified version of the Conflict Tactics Scale (Straus, 1979). The measure used in this study was comprised of six forms of severe physical violence, including (1) "hit you with a fist"; (2) "hit you with an object that could hurt you"; (3) "beaten you"; (4) "choked you"; (5) "threatened to or used a weapon"; and (6) "forced you into any sexual activity against your will." At Wave 1 women were asked if they had experienced each type of violence in an intimate relationship at any point in their adult lives, and if so whether it had occurred in the past 12 months. At Waves 2 to 5, women were asked whether they had experienced each type of violence since the previous interview. With this information, women were categorized into four groups. First, 63 (13%) women who experienced IPV during Wave 5 were defined as the "Recent IPV" group. The second group consisted of 67 (13%) women who reported experiencing IPV at Wave 3 or 4, but not at Wave 5; as their most recent IPV experience ended up to three years prior to Wave 5, these women became the "IPV Ended Within Last 3 Years" group. The third group included 61 (12%) women who had experienced IPV at Wave 1 or 2, but not at Wave 3, 4, or 5; as their most recent IPV ended 3 to 5 years prior to the time frame assessed at Wave 5, these women were categorized as "IPV Ended 3 to 5 Years Ago." The remaining 312 women (62%) had not experienced IPV at any point during the five waves of the study. At the Wave 1 interview, some of these women reported that they had experienced IPV at some point in their lives prior to the study; however, the timing of this experience could not be determined and for some women may have been as long as 40 years prior. Given the focus of the study on determining how long the employment-related effects of IPV persist, the women whose IPV experience ended more than five years prior were combined with

those reporting no lifetime IPV to form a "No Study IPV" group, indicating that they had not experienced severe physical abuse during the years of the study. To summarize, women were grouped into four categories: (1) Recent IPV; (2) IPV Ended Within Last 3 Years; (3) IPV Ended 3 to 5 Years Ago; and (4) No Study IPV. For analyses, three dummy variables were created with "No Study IPV" used as the reference group.

Control variables. Six demographic variables were controlled for in this study due to their known association with women's employment and economic well-being. First, as younger women may have less work experience and the responsibility to care for young children (Sullivan, Basta, Tan, & Davidson, 1992), participants' age at the time of the Wave 5 interview was controlled. Second, to account for racial differences in women's job stability and economic well-being due to structural inequities, race was included as a binary variable indicating if the participant was African American (Fox, Benson, DeMaris, & VanWyk, 2002; Williams, 2007). Third, as education is a key predictor of employment and economic outcomes for low-income women (Danziger et al., 2000; Hoynes, Page, & Stevens, 2006; Lee & Vinokur, 2007), an ordinal education variable indicating whether the participant had less than a high school education, completed high school/GED, had some college education, or completed four years of college as of the Wave 5 interview was included. Fourth, having children to care for can be a significant barrier to employment for low-income women, thus a binary variable was included indicating whether the participant was caring for children under the age of 14 at the time of the Wave 5 interview (Presser & Cox, 1997). Fifth, having other adults in the household, particularly others who are contributing to the household income can affect low-income women's labor force participation and experiences of hardship. Thus, the amount of income brought into the household by people other than the participant at Wave 5 was controlled in this study (Cohen, 2002). Finally, an important human capital factor that has been shown to influence women's current employment outcomes is the number of years they have spent on welfare in their adult life (Danziger, Kalil, & Anderson, 2000; Tolman & Wang, 2005); thus, we controlled for the percent of years on welfare from the age of 18 to the start of the study in 1997.

Analysis

Path analysis was used to test the hypothesized model. The analysis was performed with the structural equation modeling software AMOS version 17, and maximum likelihood (ML) methods were used to estimate model parameters. Univariate skewness values indicated that the observed variables were sufficiently normal to meet the assumptions necessary for ML estimation.

Of the 536 women who completed all five interviews, 33 who were unemployed due to disability were excluded from this study, leaving a final sample of 503 women. Missing data were minimal in this sample: There were two missing responses on both race and anticipated material hardship and 13 missing values on the amount of other household income variable. Missing data in this study were handled in two ways. First, the path analysis was performed using full information maximum likelihood estimation (FIML). The

FIML procedure was appropriate because it produces accurate coefficient estimates and model fit indices with up to 25% missing data (Enders & Bandalos, 2001). Second, expectation maximization (EM) methods were used to estimate missing values so that bootstrap estimates of the standard errors of indirect effects could be obtained. The estimates produced with missing data and with imputed data were compared to confirm there were no noticeable differences.

Following the recommendation of Hu and Bentler (1999), three different types of fit indices were applied to evaluate model fit: (1) A nonsignificant chi-square statistic (CMIN) was used as an indicator of good absolute model fit; (2) Root Mean Square Error of Approximation (RMSEA; Browne & Cudeck, 1993), with a cutoff value of less than .06, was used as an indicator of fit between the hypothesized model and the true population model, correcting for the complexity of the model; and (3) the Comparative Fit Index (CFI; Bentler, 1990), with a value greater than .95, was used as an indicator of substantial improvement in fit of relative to the null or independence model. Local model fit was also assessed by examining modification indices. To reduce model complexity, nonsignificant paths were constrained to zero. To ensure that these constraints did not significantly affect model fit, trimmed models were compared with the fully estimated model using likelihood ratio chi square tests (LR χ^2).

Once a model that adequately fit the data had been established, the final path model was used to test and interpret the hypothesized direct and indirect effects. Consistent with MacKinnon (2008), to test the primary mediational hypothesis of this study, bootstrapping (bias-corrected, with 95% confidence intervals) was used to determine the statistical significance of the indirect effects. The bootstrap procedure takes repeated samples from the original sample to compute a given parameter. The distribution of the parameter produced from the repeated sampling is used to estimate the variance in the population, which allows the significance of the parameters to be estimated (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). This procedure is a preferred alternative to other methods for testing mediation due to its ability to yield unbiased estimates and its greater power to detect effects.

Results

At the time of the Wave 5 interview, on average, participants were 36 years old and had two children under the age of 18 living with them. Fifty-six percent of the women were African American and 72% had at least a high school education (including GED's). A majority of the women were employed (66%), and 38% worked for employers who offered at least one type of job benefit; 28% had paid sick days, 37% had paid vacation time, and 32% participated in a retirement program. In 2002, the last year income data were collected, participants' reported gross household incomes ranged from US\$1,000 to US\$90,000 (M = 20,622, SD = 15,368), and 45% fell below the poverty line. While all of the women in this sample were receiving TANF in February 1997, the majority of the women (68%) had not received TANF in 2003.

Fifty-four percent of the women reported that they had experienced at least one form of material hardship in the 12 months preceding their final interview. Twelve percent had their

utilities shut off and 31% had their phone disconnected or went without a phone because they were unable to afford the cost. Seventeen percent reported that their family did not have enough food to eat. Housing was also a problem for some women: 6% had been evicted, 19% moved in with someone to share the household expenses, and 6% had been homeless in the past year. In order to provide for themselves and their families, 29% reported that they had turned to a community charity for food or shelter. In addition to the actual hardships the women had experienced, they were also asked how much they anticipated experiencing hardships in the next two months. While 48% said "not at all," another 37% said they anticipated future hardships "a little" or "some" and 15% said "pretty much" or "a great deal."

Correlations among all study variables can be found in Table 1, and comparisons among the four IPV categories and the other study variables are provided in Table 2.

Path Model

The model fitting process was informed by a combination of theory and examination of the empirical relationships. Through a systematic process of examining hypothesized associations between variables and trimming nonsignificant paths, we arrived at a final path model that showed excellent fit, $\chi^2(N = 503, 37) = 35.622$, p = .534, RMSEA = .000, 90% (CI) = .000 to .030, CFI = 1.0. Several significant relationships between the control variables and primary variables of interest remained in the final model. Education was significantly inversely related to recent IPV (B = -.031, p < .01), objective hardship (B = -.180, p < .05), and anticipated hardship (B = -.214, p < .001), and positively associated with job stability (B = 1.596, p < .001) and job benefits (B = .274, p < .001). Age was significantly inversely related to recent IPV (B =-.300 p < .01) and anticipated material hardship (B = .025, p < .001) and inversely associated with IPV that ended within the last three years (B = -.283 p < .01). Finally, the amount of income brought in by another person in the household was significantly inversely related to both objective (B = -.198, p < .001) and anticipated material hardship (B = -.135, p < .01). The final path model accounted for 6% of the variance in job stability, 17% of the variance in objective hardship, 10% of the variance in anticipated hardship, and 26% of the variance in job benefits.

Direct Effects

In order to assess the direct effects of IPV on job stability, objective and anticipated material hardship, and job benefits, the model was first tested without estimating the effects of the mediator (job stability) on the dependent variables (objective material hardship, anticipated material hardship, and job benefits; see Figure 2). As hypothesized, job stability was negatively affected by IPV that had been experienced more recently. Specifically, compared to "No Study IPV," "Recent IPV" and "IPV Ended Within Last 3 Years" were significantly related to job stability (B = -3.061, p < .05 and B = -2.936, p < .05, respectively), after controlling for demographic characteristics (path a). In other words, compared with women who had not experienced IPV during the study, women who recently

Table 1. Correlations.

	_	2	8	4	2	9	7	œ	6	01	=	12	13
I. Recent IPV 2. IPV ended < 3 years	1.00	00:1											
ago 3. IPV ended 3 to 5	<u>**141.</u> -	146 **	00.										
years ago 4. No study IPV	484 [₩]	501**	475**	00:1									
Job stability	<u>14</u>	102*	.037	.125**	00.1								
6. Objective material hardship	.282**	.II7**	018	263**	244**	00.1							
7. Subjective material hardship	.149**	.003	074	053	109*	.4I7**	00.1						
8. Job benefits	098*	009	920.	.022	.483**	<u> I88</u>	173**	00.I					
9. Age	122**	<u> 18</u>	034	<u></u> ₩88.	.103*	049	.142**	033	00.I				
10. Race	013	800	.013	005	030		060	910:	042	00.I			
II. Education	123**	045	007	.120₩	**09T		196**	.224**		.004	00.I		
 % years on welfare 	040	.023	790.	088*	070		090	073	.072	270**	262**	00.I	
 Other household income amount 	050	044	.040	.038	007	167**	I56 [∞] ×	.025	-· 108*	276**	3 ₹	–.I 78 [‱]	0.0
14. Kids under age 14	.021	.032	190.	078	092*	023	110*	012	−.383**	.112*	.043	.013	.021

Note: IPV coded 0 = no, 1 = yes; Race coded 1 = African American, <math>0 = White; Poverty, IPV = intimate partner violence. *p < .05. **p < .01.

Table 2. Means.

	Recent IPV $(n = 63)$		Ended < 3 years ago (n = 67)		Ended 3 to 5 years ago $(n = 61)$		No study IPV $(n = 312)$		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Statistical comparison
Job stability	10.063	9.064	10.454	9.166	13.811	8.692	13.798	9.396	4.722*** ^a
Objective material hardship	2.333	1.858	1.657	1.657	1.131	1.477	.891	1.276	20.135** ^b
Subjective material hardship	2.532	1.315	2.045	1.199	1.787	1.051	1.984	1.274	4.285***c
Job benefits	.698	1.375	1.060	1.496	1.410	1.726	1.122	1.531	2.306
Age	33.556	6.997	33.70	6.413	35.25	5.694	37.000	7.689	6.847*** ^d
Race	.539	.502	.567	.499	.574	.499	.555	.497	.180
Education	.968	.822	1.149	.909	1.230	.883	1.327	.831	3.488*e
% years on welfare	.617	.262	.605	.255	.637	.216	.574	.259	1.475
Other household income amount	438.983	1041.963	463.940	863.697	696.780	1154.636	612.875	1089.374	.946
Kids under age 14	.825	.383	.836	.373	.899	.340	.779	.416	3.481

Note: Statistical comparisons: Race and kids under age 14 are chi-square test statistics; others are F statistics; post hoc comparisons: Recent IPV & No study IPV; Recent IPV & IPV ended 3 to 5 years ago; IPV ended < 3 years ago & IPV ended 3 to 5 years ago; IPV ended < 3 years ago & No study IPV; Recent IPV & No study IPV; Recent IPV & IPV ended 3 to 5 years ago; IPV ended < 3 years ago & No study IPV; Recent IPV & IPV ended < 3 years ago; Recent IPV & IPV ended 3 to 5 years ago; Recent IPV & IPV ended 3 to 5 years ago; Recent IPV & No study IPV; Recent IPV & No study IPV.

^{*}p < .05. **p < .01.

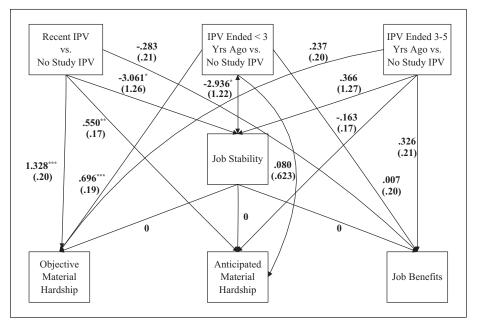


Figure 2. Direct Effects Path Model.

experienced IPV worked 3.06 fewer months at any one job, and women whose IPV ended within the last three years worked 2.9 months less at any one job. There was no significant difference in the job stability of women for whom the IPV ended three to five years ago and those who had not been victimized during the study (B = .366, p = .774).

We had also hypothesized significant direct effects of IPV on women's objective material hardship (path b). After demographic characteristics were taken into account, "Recent IPV" (B = 1.330, p < .001) and "IPV Ended within Last 3 Years" (B = .697, p < .001) were both significantly associated with greater objective material hardship, but "IPV Ended 3 to 5 Years Ago" was not (B = .235, p = .232). This means that women who were recently abused and those whose abuse had ended within the prior three years confronted significantly more material hardship than women who had not experienced IPV during the study. IPV that had ended three to five years prior did not have the same effect on objective material hardship; these women did not differ in their level of objective material hardship from the "No Study IPV" group.

Our hypothesis regarding the direct effect of IPV on anticipated hardship was also confirmed (path c). "Recent IPV" was significantly related to anticipated hardship (B = .552, p < .001), but "IPV Ended within Last 3 Years" and "IPV Ended 3 to 5 Years Ago" were not (B = .085, p = .614 and B = -.163, p = .332, respectively). In other words, women who experienced recent abuse anticipated significantly more future material hardship compared to women with no IPV during the study. IPV that ended up to three or three to five years earlier did not significantly affect women's outlook when compared to no study IPV.

Contrary to expectations, no significant direct effects were found between IPV and job benefits (path d). Specifically, there were no significant differences in the number of job benefits available to women who had experienced IPV recently, up to three years ago, or three to five years prior when compared to the job benefits available to women who had not been victimized by an intimate partner during the study.

Indirect Effects

We hypothesized that the impact of IPV on women's objective material hardship, anticipated hardship, and job benefits would be partially mediated by their level of job stability. Bootstrap standard estimates were obtained on the full model to determine the statistical significance of the indirect effects (Figure 3).

IPV, Job Stability, and Objective Material Hardship (path e)

As hypothesized, the IPV-objective material hardship relationship was significantly mediated by job stability when comparing "Recent IPV" and "IPV Ended within Last 3 Years" with "No Study IPV" (indirect B = .093, p < .01 and indirect B = .089, p < .05, respectively); there was no significant indirect effect when comparing the "IPV Ended 3 to 5 Years Prior" group with the "No Study IPV" group (indirect B = -.011, p = .851). In order to test whether the significant indirect effects indicated full or partial mediation, the estimates were computed with the paths from IPV to objective hardship set to zero and the resulting chi-square value was compared to the full model. The difference in chi-square

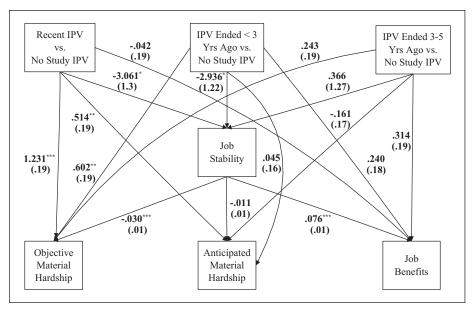


Figure 3. Full Path Model.

values (LR χ^2) between the models was 42.827 (df = 3), which was statistically significant (p < .05), indicating that model fit was significantly worsened when the path from the predictor to the dependent variable was set to zero. This means that a significant additional proportion in the overall variance was explained by the direct path from IPV to objective hardship. Thus, the level of objective material hardship experienced by women who had been recently victimized by an intimate partner and those whose abuse had ended within the last three years was partially explained by their job instability (see Table 3).

IPV, Job Stability, and Anticipated Material Hardship (path f)

Our hypothesis regarding the mediational effect of job stability on the relationship between IPV and anticipated material hardship was confirmed. Job stability mediated the relationship between IPV and anticipated material hardship for "Recent IPV" compared to "No Study IPV" (indirect B = .035, p < .05). To test whether this significant indirect effect indicated full or partial mediation, estimates were computed with the appropriate paths set to zero and the chi-square difference test was performed. The results showed a significant reduction in model fit with the direct path set to zero (LR $\chi^2(N = 503, 3) = 11.406, p < .05$), indicating that the direct relationship between current IPV and anticipated material hardship was partially mediated by job stability. Thus, the greater tendency of women who had experienced recent IPV to anticipate future material hardship, compared with those who had not experienced IPV during the study, was partially explained by their greater job instability. Although there was no significant direct effect of "IPV that Ended within Last

		nt IPV v study IP		Ended < 3 years ago vs. No study IPV			Ended 3 to 5 years ago vs. No study IPV		
	В	Þ	Effect type	В	Þ	Effect type	В	Þ	Effect type
Objective material hardship	.093	<.01	PM	.089	<.05	PM	011	.851	none
Anticipated material hardship	.035	<.05	PM	.033	<.05	IE	004	.740	none
Job benefits	232	<.05	ΙE	223	<.05	IE	.028	.871	none

Table 3. Indirect Effects.

Note: Effect type: PM = partial mediation; IE = indirect effect.

3 Years" on anticipated hardship, there was a significant indirect effect (indirect B = .033, p < .05) through job stability. Compared to women who were not victimized by an intimate partner during the study, those whose IPV had ended within the last three years had significantly less stable employment; that instability contributed to significantly more anticipated hardship. This indirect effect was not significant for the "IPV Ended 3 to 5 Years Ago" group (B = -.004, p = .74).

IPV, Job Stability, and Job Benefits (path g)

Given that a significant direct effect of IPV on job benefits was not found, the mediational hypotheses were not supported. However, significant indirect effects were found in that "Recent IPV" and "IPV that Ended within Last 3 Years" were linked to job benefits through job stability when compared to "No Study IPV" (indirect B = -.232, p < .05 and indirect B = -.223, p < .05, respectively). In other words, compared to women who had not been victimized by an intimate partner during the study, those who recently experienced IPV and those whose IPV had ended within the prior three years had significantly less stable employment, which in turn was related to a lower number of job benefits. The indirect effect was not significant for the "IPV Ended 3 to 5 Years Ago" group (B = .028, p = .87).

Discussion

This article sought to answer three important questions: (1) To what extent does IPV negatively affect the job stability and economic well-being of low-income women; (2) To what extent does job stability explain the association between IPV and reduced economic well-being; and (3) If IPV does negatively affect women's job stability and economic well-being, how long do the effects last after the abuse ends? The findings suggest that IPV can have significant negative consequences for women's job stability and economic well-being, that job stability is at least partly responsible for the deleterious economic consequences of abuse, and that the effects can last up to three years after the IPV ends.

Turning first to women's job stability, as expected, compared to no study IPV, recent IPV significantly reduced the number of months women worked at any one job by 3.06 months, and IPV that ended up to three years ago significantly reduced the amount of time worked at any one job by 2.94 months; IPV that ended three to five years earlier did not have a significant impact on women's job stability. This study showed IPV can have detrimental effects on women's job stability not only while the abuse is occurring, but for up to three years after the IPV ends. So while abuse has immediate consequences for women's ability to remain employed at any particular job, it also inhibits their ability to sustain a job for some time after the abuse ends.

In addition to directly harming women's job stability, we hypothesized IPV would directly and indirectly affect three dimensions of economic well-being: objective material hardship, anticipated material hardship, and job benefits. Our hypothesis regarding the effects of IPV on objective material hardship was confirmed. As expected, objective material hardship was significantly negatively affected by recent IPV and IPV that ended within the prior three years, and lower job stability was partly responsible for the higher levels of hardship. More specifically, when compared to women who had not been subjected to IPV during the study, those who had recently experienced IPV and those whose IPV had ended within the prior three years struggled more with hardships such as insufficient housing, food, and money to pay bills, and the amount of hardship these women were suffering was partly due to the job instability the abuse had created. Women for whom IPV had ended three to five years earlier did not differ significantly from women who had not experienced IPV during the study in terms of their level of objective material hardship. These findings suggest IPV has immediate financial consequences for women, but can also contribute to financial problems for as many as three years after the abuse ends.

Women who had recently been physically assaulted by an intimate partner had a significantly more negative outlook on their financial future than women who had not experienced IPV during the study, partly due to the job instability that stemmed from the abuse. As expected, IPV that had ended up to three years earlier continued to affect women's perceptions of the amount of hardship they would confront in the coming months; that is, women who had experienced IPV that had ended within the prior three years dealt with more job instability than did women who had not suffered IPV during the study, and that job instability led them to feel significantly less hopeful about their financial future. From these findings, it appears women's appraisal of the likelihood of upcoming financial struggles is negatively affected by recent IPV as well as IPV that ended up to three years earlier. However, women's outlook on their financial future does not seem to be significantly affected once three or more years have passed since the IPV.

IPV did not affect women's access to job benefits precisely as expected; however, there were notable findings. We found no significant direct relationships between IPV and job benefits, but instead significant indirect effects through job stability. Specifically, compared to women who had not been victimized by an intimate partner during the study, women who had recently experienced IPV and those for whom the IPV ended within the prior three years had significantly less stable employment, and that job instability led to significantly fewer job benefits. Women who had suffered IPV three to five years earlier did not differ significantly from women who had not experienced IPV during the study in

the number of benefits provided by their employer. These findings suggest women's access to job benefits (including sick time, retirement, paid vacation, and health insurance) is directly tied to their level of job stability, which can be significantly compromised by an abusive partner at the time the abuse is occurring and for up to three years after the abuse ends.

The findings of this study need to be considered in light of study limitations. First, although this research did utilize longitudinal data to categorize women according to the timing of IPV experience, the study was generally cross-sectional in design. Thus, while important contributions have been made to our understanding of the mediating role of job stability for women's economic well-being, it is unclear from this study whether IPV causes women's job stability, material hardship, and lack of job benefits. To make causal statements about the interrelationships among these variables, future research should utilize measures of IPV, job stability, hardship, and benefits at multiple time points to allow for an examination of the temporal ordering of events. Such analyses were not possible in this research due to inconsistent measurement of the number of job changes across waves of the larger study.

Second, our measure of IPV only included severe forms of IPV and failed to account for other types of abuse that can interfere with women's job stability. While this more stringent definition enhances confidence in the results, the reality is batterers use a variety of means to control their partners, many of which could directly and indirectly affect job stability (Adams et al., 2008; Moe & Bell, 2004; Swanberg et al., 2005). Future research should examine the influence of multiple forms of abuse—including psychological abuse, economic abuse, coercion, harassment, and stalking—on women's ability to sustain employment.

A third limitation of this study was that the categorization of women based on their most recent IPV experience failed to account for the fact that some IPV experiences may have been chronic of the women could have been experiencing chronic IPV. The distribution of IPV experiences within this sample prohibited categorization based on both recency and chronicity. While attending to the recency of IPV is consistent with evidence in previous research showing that more recent IPV significantly impacts employment outcomes (Staggs & Riger, 2005), future research should take chronicity of IPV experiences into account in order to examine the unique impact that ongoing IPV may have on women's employment and economic well-being.

Finally, while progressive, the definition of job stability also posed a potential limitation. Job stability, operationalized as a function of women's job changes and amount of time employed, implies that all job change is negative, when in fact a woman could leave one job to transition into a higher paying position. However, this limitation might only apply to the material hardship pathways of the model, given that any job change, whether positive or negative, can result in at least a temporary loss of job benefits. In any case, it would be advantageous for future research to distinguish between desirable and undesirable job changes to address this problem.

Despite these limitations, this study has immediate practice and policy implications. Among this sample of primarily low-income, current and former welfare recipients, those who recently experienced IPV and those for whom the IPV had ended within the last three years reported more difficulty sustaining a job, and this job instability had important consequences for their economic well-being. That is, these women experienced more material

hardship, expected more hardships in the future, and had access to fewer job benefits, at least partly because of the job instability they were experiencing. These findings call for increased efforts to address the employment-related needs of women currently being victimized by an intimate partner, as well as survivors of abuse that ended some time ago. Domestic violence advocates and other service providers can focus on connecting survivors with employment-supporting resources such as transportation, child care, or further education or job training, and working to educate and/or intervene with employers to prevent women from losing their jobs as a result of IPV. However, in order for service providers to assist women in these ways, additional funding is needed specifically for employment-supporting resources. In today's struggling economy, the lack of job opportunities elevates the importance and challenge of such efforts.

The findings of this study provide further support for the Family Violence Option (FVO) or equivalent policies to protect women receiving welfare who have abusive partners from the punitive consequences of not complying with welfare-to-work requirements. States that choose to adopt these policies enact procedures to screen for domestic violence, refer victims to supportive resources, and waive program requirements that may unfairly penalize or endanger IPV survivors. Our findings confirm the need to screen and grant waivers for not only current abuse, but also past IPV, as both may compromise women's ability to meet program requirements. Regardless of whether the abuse is ongoing or past, women could be dealing with the physical and mental health consequences, fear of further victimization, or a limited work history or tarnished employment record because of the abuse; they may also be juggling court dates, counseling sessions, doctors' appointments, and other mandated services, all while meeting the demands of everyday life. In order to best serve IPV survivors and promote their safety, welfare program caseworkers need to understand the multitude of barriers women with current and past abusive partners face. One way to ensure survivors of abuse are identified and receive the support and concessions they need is to facilitate collaborations between welfare and/or Work First programs and local violence against women organizations. The mission of Work First programs is to move welfare recipients back into the labor market and the mission of domestic violence programs is to provide women with the help and support they need to find safety and heal from the effects of an abusive relationship. As the missions of these groups are complementary, together they could help women return to work safely and pursue a path to a better financial future for themselves and their children.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Funding for the Women's Employment Study was provided by the Charles Stewart Mott Foundation, the Joyce Foundation, and the John D. and Catherine T. MacArthur Foundation and by grant R24-MH51363 from the National Institute of Mental Health.

Note

The chi-square test was performed to determine if the women who dropped out of the study
and those who were included in the analysis differed significantly on whether they had experienced severe IPV in the past year at Wave 1. The test showed no significant difference
between the two groups, x² (1)-2.81, p = .094.

References

- Adams, A. E., Sullivan, C. M., Bybee, D., & Greeson, M. R. (2008). Development of the Scale of Economic Abuse. *Violence Against Women*, 14, 563-588.
- Baker, C. K., Cook, S. L., & Norris, F. H. (2003). Domestic violence and housing problems: A contextual Analysis of women's help-seeking, received informal support, and formal system response. *Violence Against Women*, 9, 754-783.
- Barusch, A. S., & Taylor, M. J. (1999). Understanding families with multiple barriers to self sufficiency. Final report submitted to Utah Department of Workforce Services, Salt Lake City, Utah.
- Bell, H. (2003). Cycles within cycles: Domestic violence, welfare, and low-wage work. Violence Against Women, 9, 1245-1262.
- Bentler, P. M. (1990). Fit indexes, lagrange multipliers, constraint changes and incomplete data in structural models. *Multivariate Behavioral Research*, 25, 163-172.
- Brandwein, R. A., & Filiano, D. M. (2000). Toward real welfare reform: The voices of battered women. *Affilia*, 15, 224-243.
- 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.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.
- Brush, L. D. (2004). Battering and the poverty trap. *Journal of Poverty*, 8(3), 23-43.
- Cohen, P. N. (2002). Extended households at work: Living arrangements and inequality in single mothers' employment. *Sociological Forum*, 17(3), 445-463.
- Corcoran, M. E., Heflin, C. M., & Siefert, K. (1999). Food insufficiency and material hardship in post-TANF welfare families. *Ohio State Law Journal*, 60, 1395-1422.
- Dangizer, S., Corcoran, M., Danziger, S., Heflin, C., Kalil, A., Levine, J., . . . & Tolman, R. (2000). Barriers to the employment of welfare recipients. In R. Cherry & W. Rodgers (Eds.), he Impact of Tight Labor Markets on Black Employment Problems (pp. 245–278). New York: Russell Sage.
- Danziger, S., Heflin, C. M., Corcoran, M.E., Oltmans, E., & Wang, H. (2002). Does it pay to move from welfare to work? *Journal of Policy Analysis and Management*, 21(4), 671-692.
- Danziger, S. K., Kalil, A., & Anderson, N. J. (2000). Human capital, physical health, and mental health of welfare recipients: Co-occurrence and correlates. *Promoting Environmentalism*, 56(4), 635-654.
- Enders, C. K., & Bandalos, D. L. (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling*, 8, 430-457.

Fox, G. L., Benson, M. L., DeMaris, A. A., & Van Wyk, J. (2002). Economic distress and intimate violence: Testing family stress and resources theories. *Journal of Marriage and Family*, 64(3), 793-807.

- Honeycutt, T. C., Marshall, L. L., & Weston, R. (2001). Toward Ethnically specific models of employment, public assistance, and victimization. Violence Against Women, 7(2), 126-140.
- Hoynes, H. W., Page, M. E., & Stevens, A. H. (2006). Poverty in America: Trends and explanations. The Journal of Economic Perspectives, 20(1), 47-68.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- Lee, S. J., & Vinokur, A. D. (2007). Work barriers in the context of pathways to the employment of welfare-to-work clients. *American Journal of Community Psychology*, 40(3), 301-312.
- 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.
- MacKinnon, D. P. (2008). *Introduction to statistical mediation analysis*. New York: Taylor & Francis.
- Mackinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83-104.
- Meisel, J., Chandler, D., & Rienzi, B. (2003). Domestic violence prevalence and effects on employment in two California TANF populations. Violence Against Women, 9, 1191-1212.
- 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.
- Presser, H. B., & Cox, A. G. (1997). The work schedules of low-educated American women and welfare reform, *Monthly Labor Review*, 120, 25-34.
- Raphael, J. (1996). Prisoners of abuse: Domestic violence and welfare receipt. Chicago, IL: Taylor Institute.
- Raphael, J. (1999). Keeping women poor: How domestic violence prevents women from leaving welfare and entering the world of work. In R. A. Brandwein (Ed.), *Battered women, children, and welfare reform: The ties that bind* (pp. 31-43). Thousand Oaks, CA: Sage.
- Raphael, J., & Tolman, R. M. (1997). Trapped by poverty, trapped by abuse: New evidence documenting the relationship between domestic violence and welfare. Chicago, IL: Taylor Institute.
- Riger, S., Ahrens, C., Blickenstaff, A. (2000). Measuring interference with employment and education reported by women with abusive partners: Preliminary data. *Violence and Victims*, 15(2), 161-172.
- Riger, S., Staggs, S. L., & Schewe, P. (2004). Intimate partner violence as an obstacle to employment among mothers affected by welfare reform. *Journal of Social Issues*, 60, 801-818.
- Romero, D., Chavkin, W., Wise, P. H., & Smith, L. A. (2003). Low-Income mothers' experience with poor health, hardship, work, and violence: Implications for policy. *Violence Against Women*, 9, 1231-1244.
- Sable, M. R., Libbus, M. K., Huneke, D., & Anger, K. (1999). Domestic violence among AFDC recipients: Implications for welfare-to-work programs. *Affilia*, 14(2), 199-216.

- Sanders, C. K. (2007). Domestic violence, economic abuse, and implications of a program for building economic resources for low-income women. Center for Social Development, Washington University.
- Shepard, M., & Pence, E. (1988). The effect of battering on the employment status of women. *Affilia*, 3(2), 55-61.
- Siefert, K., Heflin, C. M., Corcoran, M. E., & Williams, D. R. (2004). Food insufficiency and physical and mental health in a longitudinal survey of welfare recipients. *Journal of Health* and Social Behavior, 45, 171-186.
- Smith, M. W. (2001). Abuse and work among poor women: Evidence from Washington State. *Research in Labor Economics*, 20, 67-102.
- Staggs, S. L., Long, S. M., Mason, G. E., Krishnan, S., & Riger, S. (2007). Intimate partner violence, social support, and employment in the post-welfare reform era. *Journal of Inter*personal Violence, 22, 345-367.
- Staggs, S. L., & Riger, S. (2005). Effects of intimate partner violence on low-income women's health and employment. *American Journal of Community Psychology*, 36, 133-145.
- Straus, M. (1979). Measuring intrafamily conflict and violence: The Conflict Tactic Scales. *Journal of Marriage and the Family*, 41, 75-88.
- Sullivan, C. M., Basta, J., Tan, C., Davidson, I. I., & William, S. (1992). After the crisis: A needs assessment of women leaving a domestic violence shelter. *Violence and Victims*, 7(3), 267-275.
- Swanberg, J. E., & Logan, T. K. (2005). Domestic violence and employment: A qualitative study. *Journal of Occupational Health Psychology*, 10, 3-17.
- Swanberg, J. E., Logan, T. K., & Macke, C. (2005). Intimate partner violence, employment, and the workplace: Consequences and future directions. *Trauma, Violence, & Abuse, 6*, 286-312.
- Tolman, R. M, Danziger, S., & Rosen, D. (2002). Domestic violence and economic well-being of current and former welfare recipients. Ann Arbor, MI: University of Michigan, School of Social Work, Michigan Program on Poverty and Social Welfare Policy.
- Tolman, R. M., & Raphael, J. (2000). A review of research on welfare and domestic violence. *Journal of Social Issues*, 56, 655-682.
- Tolman, R. M., & Rosen, D. (1998). Domestic violence in the lives of welfare recipients: Implications for the family violence option. Paper presented at the Trapped by Poverty, Trapped by Abuse Conference, University of Michigan, Ann Arbor.
- Tolman, R. M., & Rosen, D. (2001). Domestic violence in the lives of women receiving welfare: Mental health, substance dependence, and economic well-being. *Violence Against Women*, 7, 141-158.
- Tolman, R. M., & Wang, H.C. (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.
- Vest, J. R., Catlin, T. K., Chen, J. J., & Brownson, (2002). Multistate analysis of factors associated with intimate partner violence. American Journal of Preventive Medicine, 22, 156-164.
- Vozoriz, N. T., & Tarasuk, V. S. (2003). Household food insufficiency is associated with poorer health. *Journal of Nutrition*, 133, 120-126.
- Wettersten, K. B., Rudolph, S. E., Faul, K., Gallagher, K., Trangsrud, H. B., & Adams, K., et al. (2004). Freedom through self-sufficiency: A qualitative examination of the impact of

domestic violence on the working lives of women in shelter. *Journal of Counseling Psychology*, 51, 447-462.

Williams, E. (2007). Economic status of women in Michigan: Wide disparities by race and ethnicity (IWPR Briefing Paper No. R337). Washington, DC: Institute for Women's Policy Research. Retrieved from http://www.iwpr.org/publications/pubs/the-economic-status-ofwomen-in-michigan.

Author Biographies

Adrienne E. Adams, PhD, is an assistant professor of ecological/community psychology at Michigan State University, who has been an advocate and researcher in the violence against women field since 2000. Her research focuses on intervening to prevent and reduce the economic effects of intimate partner abuse on women. She also has expertise in evaluating community-based interventions and victim service programs.

Richard M. Tolman, PhD, is a professor at the University of Michigan, School of Social Work. His work focuses on the effectiveness of interventions designed to change violent and abusive behavior, and the impact of violence on the physical, psychological and economic well-being of victims. His current projects include research on prevention of abuse during pregnancy, and involvement of men and boys as allies to end men's violence against women. He is currently codirector of the Global Research Program on Mobilizing Men for Violence Prevention, a collaborative project between the University of Michigan and the University of Minnesota.

Deborah Bybee is a professor in the Department of Psychology at Michigan State University. As a community psychologist, she focuses on methodological and statistical issues in real world research, especially longitudinal approaches. Her main substantive interests are violence against women and mental health.

Cris M. Sullivan, PhD, is a professor of ecological/community psychology at Michigan State University (MSU) and the director of MSU's Violence Against Women Research and Outreach Initiative. She has been an advocate and researcher in the movement to end violence against women since 1982. Her areas of research expertise include developing and evaluating community interventions for women with abusive partners, improving the community response to violence against women, and evaluating victim service programs.

Angie C. Kennedy is an associate professor of social work at Michigan State University. Her current research focuses on examining patterns of co-occurring and cumulative violence exposure among adolescent women.