



The Role of Social Support in the Link Between Economic Abuse and Economic Hardship

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Abstract

More data is needed about the pathways through which intimate partner violence (IPV) impacts the economic well-being of survivors. The current study assesses the moderating influence of social support on the association between economic abuse (EA) and economic hardship. Female participants ($n = 435$) were recruited to participate in a web-based survey which included standardized measures of EA, other forms of IPV, domains of social support, and economic hardship. Analysis included bivariate and multivariate regression with an investigation into interaction effects. Experiencing EA was significantly correlated with economic hardship, even with extent of physical and emotional IPV controlled. Both tangible and appraisal support had significant negative association with extent of material hardship. Significant interactions between forms of social support and economic abuse were observed. For those at high levels of economic abuse, support had less influence on economic hardship. A mix of direct economic aid, advocacy, education and support could provide a blueprint for addressing the economic hardship experiences of community-dwelling survivors of economic abuse. A comprehensive response to EA requires interventions aimed directly at economically controlling and exploitative tactics, including credit building, individual economic advocacy, and education. Interventions that seek to enhance survivors' access to social support may be necessary but not sufficient to buffer the impacts of violence on survivors' economic outcomes.

Keywords Domestic violence · Economic abuse · Material hardship · Economic security · Social support

Background

Intimate partner violence (IPV) is a worldwide epidemic that impacts at least one in four (27.4%) women (Smith et al. 2017). The consequences of economic abuse at the hands of an intimate partner are far-reaching and long lasting. The monetary costs of IPV include \$5.8 billion annually in lost productivity, physical, and mental health care costs, along with expenditures for legal and court costs (Max et al. 2004). Survivors of IPV lose approximately 8 million days of work per year, the economic equivalent of 32,000 full-time jobs (NCIPC 2003). IPV

also creates serious barriers to establishing or maintaining economic independence for survivors. These barriers are all the more challenging because women cite economic dependence on their abusive partner as a primary limiting factor in establishing safety outside of an abusive relationship (Adams et al. 2013; Tolman and Rosen 2001). While the link between IPV and economic insecurity is well established, the pathways that feed this association are less explored. The current study seeks to expand the knowledge in this area by assessing the moderating influence of social support on the association between economic forms of abuse and economic hardship in a community-based sample of women.

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Economic Abuse

Scholars have identified specific batterer behaviors aimed at sabotaging economic efforts and maintaining economic power and control as a distinct type of IPV (Adams et al. 2013; Stylianou 2018a). Evidence of unique consequences and specific patterns of behavior have led scholars to call for economic abuse (EA) to be considered as a separate form of abuse

deserving specific attention to its dynamics, patterns, and impacts (Adams et al. 2008; Postmus et al. 2012, 2018; Stylianou et al. 2013). EA is comprised of tactics that hinder economic self-sufficiency and harm economic self-efficacy through financial exploitation, economic control, and employment sabotage (Adams et al. 2008; Postmus et al. 2012; Weaver et al. 2009). These include preventing or limiting work or school hours, stealing income or cash gifts, harassment at work or school, damaging credit history, and dominating family finances by demanding receipts, preventing access to money, or making unilateral decisions (Adams et al. 2008; Stylianou 2018a; Moe and Bell 2004; Sanders 2015; Voth Schrag and Edmond 2017; Voth Schrag et al. 2017; Voth Schrag et al. 2018; Weaver et al. 2009). These behaviors are linked to employment and housing instability, increased use of public assistance, greater material hardship, and increased economic dependence on abusive partners for financial stability (Adams et al. 2013; Goodman et al. 2009; Voth Schrag 2016). Economic abuse has also been shown to impact the health and mental health of victims of IPV. EA has been linked with negative health outcomes such as gastrointestinal syndromes, psychosomatic symptoms, pelvic problems, and psychological problems, as well as mental health impacts including increased risk of depression (Stockl and Penhale 2015; Stylianou 2018b; Voth Schrag 2016). Data also show that historical experiences of EA can reverberate through survivors' lives for years due to on-going issues with debt, credit, employment, and economic self-sufficiency (Toews and Bermea 2017; Ulmestig and Eriksson 2017).

There is growing evidence for the prevalence of EA. In clinical populations of IPV survivors, high levels of EA have been documented by Adams et al. (2008) and Postmus et al. (2012) among others. These studies found that 99% of sheltered IPV survivors and 98% of IPV service seeking women reported economic abuse as an aspect of their abusive relationship. Additionally, a recent study found lifetime prevalence rates of economic abuse among women at 15.7% in an Australian sample (Kutin et al. 2017). However, in the United States few studies have examined the dynamics of EA outside of IPV service settings, and those that have often have used non-standardized measure of EA (Postmus et al. 2018).

Economic Hardship

A substantial literature links IPV to decreased economic well-being (Adams et al. 2013). National estimates from Rennison and Welchans (2000) found seven times more IPV among those in the lowest 1/7th of the income distribution. Similarly, Tolman and Wang (2005) found a 10% reduction in work hours over 3 years for survivors. The link between IPV and poverty is particularly concerning because economic hardship can further the cycle of violence, deepening women's dependence on an abusive partner for basic needs and security for themselves and their children (Adams et al. 2008; Brush

2004; Kutin et al. 2017; Power 2006). Conversely, economic well-being can provide a buffer against on-going dependence on an abusive partner and may be an important pathway to safety from long-term abuse at the hands of a current or future partner (Adams et al. 2013). However, differences in economic impact by type of IPV experiences (physical, emotional, economic, etc.) is less understood.

Scholars have identified tactics of economic abuse to include stealing income and limiting access to bank accounts or joint property. Thus, measures of economic well-being based on household income or individual income may miss economic dynamics faced by survivors. One strategy for operationalizing economic hardship is through experiences of material hardships, such as utility disconnections, housing instability, food scarcity, and difficulty accessing needed medical care (Beverly 2001). Material hardships are a clear indicators of the extent to which survivors and their families are able to meet basic needs, and the extent to which they face serious economic insecurity (Voth Schrag 2016).

Social Support

Social support is the availability of individuals in a survivor's social network who provide emotional comfort, helpful advice, tangible assistance, and positive social interactions (Coker et al. 2002). Wright (2015) argues that "friends, family, or acquaintances may provide instrumental or expressive support to victimized women, which may help her to leave the relationship or cope with the victimization" (p. 1335). Higher levels of social support have demonstrated to be related to increased help-seeking and decreased negative outcomes for survivors of IPV (Coker et al. 2002; Dougé et al. 2014; Kamimura et al. 2013; Van Wyk et al. 2003). However, research concerning the relationship between social support and economic hardship is limited. Several studies have attempted to look at the moderating effects of social support on the relationship between economic hardship and psychological distress but have not found significant results (Kingston 2013; Manuel et al. 2012; Ayala-Nunes et al. 2018). Alternatively, Simmons et al. (2007) found social support was a strong indicator of economic well-being in rural, low-income, single mothers. Further, in a qualitative study exploring economic abuse and unemployment, survivors identified that one impact of job loss was the loss of emotional support and recognition from colleagues (Ulmestig and Eriksson 2017). However, the role of social support in the lives of survivors of EA and the particular impact of social support in addressing the economic impact of EA remains unclear.

Theoretical Framework

Coercive control theory (CCT) views physical violence as one tactic of IPV, rather than the end in itself, and highlights the

range of abusive tactics, including EA, that are used to establish power and control. (Arnold 2009). Dutton and Goodman (2005) argue that a coercive threat must involve both a demand and a credible threat associated with not carrying out the demand. When an IPV survivor believes that the threat or consequence will be carried out, the abusive partner holds both the power of threat and the power of reward (Dutton and Goodman 2005; Stark 2007). Importantly for the current study, CCT posits that IPV survivors will have lower levels of economic stability compared to others, as an abusive partner uses various tactics (including physical and emotional violence and their resulting mental and physical health consequences, as well as tactics of EA) to increase economic dependence in order to enhance their control over all aspects of life (Stark 2007; Postmus et al. 2012).

Research Aims

The current study seeks to expand our knowledge related to the dynamics of economic hardship within the context of IPV by assessing the association between EA with physical and emotional IPV, and economic hardship. It also seeks to examine the moderating impact of receiving social support on survivors' experiences of hardship. It asks the following research questions:

- 1) Is there an association between experiencing EA and experiencing economic hardship in a community-college based sample of women?
- 2) Is there an association between extent of social support and EA in a community-college based sample of women?
- 3) Does the extent of social support moderate the relationship between EA and economic hardship?

Method

Participants and Procedures

Participants were 435 women who were attending one of four community college campuses within a single community college system in a large Midwestern metropolitan area during the Fall 2015 semester. After study procedures were approved by the IRBs of the sponsoring university and the community colleges, the study team was provided with a complete roster of currently enrolled students. From this roster, a simple random sample of participants were recruited via their college e-mail accounts to participate in a web-based survey exploring factors influencing their quality of life and educational outcomes. Of female students randomly selected for recruitment, 15% ($n = 1358$) opened a recruitment e-mail. Fifty-six percent of those then opened the survey link, and 620 (84% of those who opened the survey) consented to participate. Overall, 46% of

females who opened the survey e-mail consented to participate, or 12% of females contacted. Of those who consented, 36 were screened out for reporting that they identified as male, nine were screened out for being younger than 18 or not reporting an age to verify their eligibility, and 126 were screened out for not having been in an intimate relationship in the past 12 months. These participants, along with those who failed to complete the demographic questioner ($n = 15$), were removed from further analysis, leaving a final sample of 435 respondents. To understand the extent to which the sample reflects the broader population of community college students, the demographics of study participants were compared with data for all students enrolled in the community college system published by the National Center for Education Statistics (NCES 2017). No significant differences were identified between the study sample and the demographics of the four campuses overall on any of the observed variables (see Table 1).

Participants were an average age of 27.1 years ($SD = 9.9$) and racially diverse (58% White, 27% African American, 14.5% Other) (See Table 1). Forty-eight percent had at least one child at home. Nearly 80% (79.7%) were currently working for pay, and almost 40% were currently living with their intimate partner. Among those currently working, they averaged 31 h of work per week. Participants received a \$20 gift card for completing the survey which took between 30 and 40 min. The web-based survey included demographic measures and validated scales assessing economic and social indicators along with measures of violence exposure.

Measures

Economic Hardship Economic hardship was measured via *The Economic Hardship Index (EHI)*, which has been previously used with a version of the Scale of Economic Abuse to look at relationships between EA and material hardship among service seeking IPV survivors (Adams et al. 2008). The EHI is a checklist measure of 13 forms of material hardship, including difficulty finding stable housing, eviction, food insecurity, and utility disconnection. Respondents are asked to report if they have experienced various forms of hardship in the past year, and a total summed score is obtained. Adams and colleagues (Adams et al. 2008) found the EHI to have a reliability coefficient of .86 in a sample of IPV survivors. In the current sample of community college women, the scale alpha was .88.

Economic Abuse Economic abuse was measured via the *Scale of Economic Abuse (SEA-12)* (Stylianou et al. 2013). It uses a five-point Likert scale (1 = *never* to 5 = *very often*) to assess the frequency of specific behaviors over the past 12 months including items such as “made financial decisions without you”, “kept financial information from you”, “and “build up debt under your name.” The 30-item version of the SEA has demonstrated strong validity and good internal and test-retest

Table 1 Description of study participants ($n = 435$) and comparison to overall community college system demographics (Fall 2015)

Variable	Mean (SD)	Range	% (n)	CC system overall demographics ^a
Age (years)	27.1 (9.9)	18–67		27 ^{n/s}
Number of children in the home	1.0 (1.2)	0–8		
Monthly individual income	\$1176 (1085)	0–9000		
Full time student ^b			43.2% (179)	40% ^{n/s}
Race				
White			58.1% (252)	56% ^{n/s}
Black/AA			27.4% (119)	31%
Other			14.5% (64)	13%
Living Situation				
With partner			38.0% (165)	
Not with partner			62.0% (269)	

^a Fall 2015, as reported by NCES (2017)

^b Based on CC system definition of at least 12 credit hours

^{n/s} No significant difference observed between sample demographics and Fall 2015 CC system enrollment, using either Pearson's Chi-square or t-test

reliability (Adams et al. 2008, 2015). In the current sample of community college women, the overall SEA-12 scale alpha was .86.

Physical & Emotional Abuse Physical and emotional abuse were measured using the revised *Abusive Behavior Inventory (ABI-R)* (Postmus et al. 2015). Subscales for physical violence (9 items) and emotional abuse (13 items) were used. Responses were on a five-point Likert scale (1 = *never* to 5 = *very often*) and assessed the frequency of specific abusive behaviors over the past 12 months. The ABI-R has been used previously along with the SEA-12 to evaluate multiple forms of IPV together (Postmus et al. 2015). In the current sample, the subscale alphas were .89 for physical IPV and .89 for emotional IPV.

Social Support Social support was measured via the *Interpersonal Support Evaluation List (Short) (ISEL-S)* (Payne et al. 2012). The current study used two ISEL-S subscales to evaluate extent of social support: appraisal support (advice/encouragement) and tangible support (provision of physical help or needed items) (Payne et al. 2012). The ISEL-S has demonstrated reliability coefficients clustered around .80 for the full scale and all subscales (Payne et al. 2012). A four-

point Likert scale (1 = *definitely false* to 4 = *definitely true*) is used to assess the extent to which participants view the statements as true for them. In the current sample of community college women, subscale alphas were .76 for appraisal support and .66 for tangible support.

Data Analysis

Data analysis included descriptive analyses of univariate statistics to describe the extent of exposure to economic abuse and economic hardship, as well as levels of appraisal and tangible support. Due to univariate skewness in the economic abuse exposure variable, spearman correlations were conducted to understand the bivariate relationships between key study variables. Last, multiple regression analyses were run using the Hayes moderation macro (Hayes 2018) to test the moderating effect of different types of social support on the relationship between economic abuse and economic hardship. Missing data was low across all items, with Tables 1 and 2 indicating the number of observations included for each variable of interest. A power analysis in the study's design phase determined that the sample size was sufficient for the intended moderation analyses.

Table 2 Description of study variables

Variable	Mean (SD)	Range	Theoretical range	Number reporting	Scale Alpha
Economic abuse	1.2 (.4)	1–3.9	1–5	425	.85
Physical abuse	1.1 (.3)	1–4.6	1–5	430	.89
Emotional abuse	1.4 (.6)	1–5	1–5	430	.89
Economic hardship index	2.8 (3.3)	0–13	0–13	417	.88
Appraisal social support	9.1 (3.1)	0–12	0–12	405	.76
Tangible social support	8.9 (2.7)	0–12	0–12	403	.66

Results

Descriptive Analyses

The overall average for the SEA-12 was low ($M = 1.2, S. D. = 0.4, \text{Range} = 1\text{--}3.9$), however 44% of respondents indicated having experienced at least one economically abusive behavior in the past 12 months (43.76%, $n = 186$). Similarly, low levels of physical abuse ($M = 1.1, S. D. = .3, \text{Range} = 1\text{--}4.6$) and EA ($M = 1.4, S. D. = .6, \text{Range} = 1\text{--}5$) were observed. Respondents reported an average of three economic hardships in the past year, with responses ranging from 0 to 13 forms of hardship, and similar levels of appraisal and tangible social support (Appraisal $M = 9.1$, Tangible $M = 8.9$). See Table 2 for descriptive statistics of key study variables.

Bivariate Analyses

Bivariate correlations between abuse exposure, key study variables, and demographic characteristics were analyzed (See Table 3). EA and economic hardship were positively correlated ($r[415] = .28, p < .001$), with higher levels of EA linked to greater hardship. Additionally, physical ($r[415] = .23, p < .001$) and emotional abuse ($r[415] = .21, p < .001$) were positively correlated with economic hardship.

Multiple Regression Analyses

Table 4 presents the results for linear regression models that assess the impact of the interaction between appraisal and tangible social support and economic abuse on participants' level of material hardship experience. Both models control for covariates including physical and emotional IPV experiences, monthly income, number of children in the home, age, and respondent race. As shown in model 1, a significant association is observed between appraisal support and extent of economic hardship. As

survivors' experience higher levels of economic hardship, they report decreased appraisal support ($\beta = -.12, p = .03$). Similarly, higher levels of EA are associated with higher levels of economic hardship ($\beta = 2.00, p < .001$). Finally, a significant interaction was observed between appraisal support and EA ($\beta = .27, p = .01$). For survivors reporting higher levels of EA, the protective influence of appraisal support on extent of economic hardship is less. Neither physical ($\beta = .46, p = .57$) nor emotional ($\beta = .03, p = .94$) IPV were significantly associated with extent of economic hardship in model 1. Participant income ($\beta = .05, p = .01$) and race ($\beta = -1.25, p < .001$) remained significantly associated with economic hardship experiences in this multivariate model.

Table 4 model 2 describes the relationships between EA, tangible support, and economic hardship. In this multivariate model, the relationship between EA and economic hardship remained statistically significant ($\beta = 1.64, p < .001$). A significant relationship between tangible support and economic hardship was observed, with increased tangible support being associated with decreased economic hardship ($\beta = -.27, p < .001$). Finally, a significant interaction was observed between tangible support and EA ($\beta = .27, p = .03$). At higher levels of EA, the protective influence of tangible support on extent economic hardship is reduced. Neither physical ($\beta = .67, p = .41$) nor emotional ($\beta = .10, p = .81$) IPV were significantly associated with extent of economic hardship in model 2. Participant income ($\beta = .06, p < .001$) and race ($\beta = -1.22, p < .001$) were still significantly associated with economic hardship experiences.

Discussion

In line with coercive control theory, this study found a significant association between EA and recent experiences of economic hardship in a sample of women attending community

Table 3 Spearman correlations between study variables

Variable	1	2	3	4	5	6	7	8	9
1. Economic abuse	–								
2. Physical abuse	.31***	–							
3. Emotional abuse	.57***	.47***	–						
4. Appraisal support	-.16**	-.11*	-.14**	–					
5. Tangible support	-.19***	-.11*	-.15**	.69***	–				
6. Economic hardship	.28***	.23***	.21***	-.18***	-.24***	–			
7. Monthly income	.16**	.04	.10	-.00	.11*	.25***	–		
8. Children (#)	.04	.02	-.01	-.00	.05	.09	.14**	–	
9. Age	.19***	-.06	-.07	.04	-.01	.14**	.39***	.21***	–
10. Race ^a	-.11*	-.00	-.07	.14**	.10	-.19***	-.08	-.12*	-.03

* $p < .05$. ** $p < .01$. *** $p < .001$

^a 1 = of color, 2 = White, point-biserial correlation

Table 4 Results for linear regression models of impact of interaction between social support forms and extent of economic abuse on extent of economic hardship

Economic hardship	Model 1 appraisal support			Model 2 tangible support		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
Economic abuse	2.00	.66	.00	1.64	.63	.00
Appraisal support	-.12	.05	.03	–	–	–
Tangible support	–	–	–	-.27	.06	.00
Interaction (EA X support)	.27	.11	.01	.27	.12	.03
Physical IPV	.46	.81	.57	.67	.81	.41
Emotional IPV	.03	.44	.94	.10	.43	.81
Income	.05	.02	.01	.06	.02	.00
Number of children	.20	.14	.14	.26	.14	.05
Age	-.00	.02	.81	-.01	.02	.72
Race ^a	-1.25	.33	.00	-1.22	.32	.00
Constant	2.48	1.00	.01	2.02	.99	.04
F (9, 353)	7.05			9.33		
R ²	.15			.19		
<i>p</i>	.00			.00		

^a 1 = of color, 2 = White

college in a large Midwestern metropolitan area. The quantitative data identified a strong association between EA and increased economic hardship in a non-service seeking population, and at lower levels of EA severity than previously observed (Adams et al. 2008; Postmus et al. 2012). Previous studies have been in service seeking samples, presumably with survivors of long-term or severe IPV who may be more financially entrenched with their partners. Comparatively, women in this sample have a wide a range of relationship stages and types, including many individuals in healthy intimate relationships.

Of particular importance is that these tactics were associated with increased economic hardship, even when monthly income and other forms of IPV experiences were statistically controlled. This suggests that increasing individual income or reducing physical violence without also addressing economic coercion is not enough to prevent experiences like utility disconnections or housing instability for those living with EA. Even those with higher incomes are at risk of economic hardship in the face of IPV. These findings suggest that interventions aimed specifically at addressing the tactics of EA, such as credit sabotage, economic control, and economic exploitation, will be critical in supporting women's efforts to build economic security and long-term financial safety.

The results of the moderation analysis provide unique insight into how different forms of social support impact the economic hardship experiences of survivors of EA and other forms of IPV. For participants who report low levels of economically abusive tactics in their current or most recent relationship, high levels of social support are associated with

fewer experiences of material hardship. In other words, social support may be protective against material hardship for these individuals. However, for participants who reported high levels of economically abusive tactics, the association between extent of social support and material hardship was weaker. Participants who had access to high levels of social support did not have the same experience of protection from material hardship experiences in the face of EA.

In bivariate analysis, higher levels of physical and emotional abuse were also linked to increased economic hardship for survivors of intimate partner violence. However, in the multivariate models, when the three forms of IPV were considered together, only EA was significantly linked with economic hardship experiences. With this perspective, experiences of EA appear to be especially confounding, as they seem to be uniquely associated with economic hardship experiences.

Implications for Working with Survivors

Being entrenched in social networks that have access to material resources can be protective against economic hardship for survivors of IPV. However, previous studies have demonstrated that the social isolation that accompanies IPV can be a threat to these networks, breaking down access to resources and potentially disrupting the protective effect of social support (Lanier and Maume 2009; Sylaska and Edwards 2014). For service providers, these data suggest the importance of supporting survivors in identifying strategies for safely maintaining and building social supports and for developing programs that can provide some of the sorts of tangible resources that can decrease survivors' experiences of material hardship. These data also

remind us that services which provide advice or knowledge may be necessary but not sufficient to address the material hardship experiences of IPV survivors, especially those for whom EA is a major component of their IPV experience.

Financial empowerment programs like the *Moving Ahead Through Financial Management* curriculum have proven effective in support of the economic self-efficacy of survivors, which could enhance their ability to address the economic consequences of EA (Hetling et al. 2016). The current findings suggest that it could be useful to complement these programs with efforts specifically aimed at increasing survivors' safe and secure access to resources which can disrupt material hardship experiences. One such intervention is economic advocacy, which attempts to account for survivors' material and financial needs in the context of planning for safety from abuse (VonDeLinde 2016). It requires advocates to understand the complexities of credit, debt, banking, taxation, and saving, along with how to connect survivors with resources, make change at systemic levels, and explore unconventional routes for enhancing economic well-being (VonDeLinde 2016). Some of these routes could include evidence based interventions such as Individual Development Accounts, housing first programs, and utility assistance. These programs can complement financial education and advocacy and increase survivors' access to tangible resources in order to buffer the impact of EA on their overall economic stability and well-being (Baker et al. 2003; Sanders 2015; Sanders and Schnabel 2007).

The literature on survivors' experiences with EA provides an important caution for practitioners seeking to develop such programs. Interviews and surveys with survivors reveal a wide array of economically abusive tactics used by abusive partners, including stealing or controlling access to cash and in-kind material assistance (Postmus et al. 2015; Sanders 2015). Service providers can address this challenge to survivors' economic power by using a Survivor Defined Advocacy framework, which takes an individualized approach to work with each survivor, considering their own unique combination of risks and opportunities (Davies and Lyon 2014). Survivor centered economic advocacy (SCEA) provides a helpful framework for the integration of tangible supports into an individualized and survivor specific safety plan. As defined by VonDeLinde (2016), SCEA is:

an alliance between survivors and advocates that addresses both the physical safety and economic safety needs of survivors through reviewing and developing creative strategies on the survivor's current, past, and future priorities. SCEA builds on the survivor's strengths and uses the advocates knowledge and experience to enhance the survivor's comprehensive safety plan. (2016, p. 2)

Limitations

A number of methodological limitations should be considered when weighing the voracity of the findings of the current study. First, a major limitation of this work is that the data are cross-sectional and thus unable to measure change over time (Kumar 2005). Theoretically informed assumptions about causality were built into the specification of the moderation model, but with cross-sectional data it is impossible to control for reciprocal relationships between constructs. Thus, the current study should be seen as a preliminary assessment of the role of social support in buffering the impact of EA on economic hardship, and serve as justification for further longitudinal evaluation.

The study also fails to capture a number of potentially important vectors influencing the relationship between abuse and material hardship. Previous work has demonstrated that issues such as the role of abuse in mental and physical health, employment and academic outcomes may all influence survivor's economic outcomes. Future studies should consider including these factors as they seek to understand the key pathways for prevention and intervention.

The current study response rate is within- but on the lower end of- the range of published campus based studies of victimization (e.g., Busch-Armendariz et al. 2017; Cantor et al. 2015). Although low response rates are expected for web-based surveys compared to other forms of measurement, the response rate for the current study threatens the generalizability of the findings. This concern is somewhat ameliorated by the fact that, when demographics of survey respondents are compared with the study population on age, part vs. full time status, and race, the survey respondents are similar to the overall student body of the four campuses. However, there is still a chance that study participants vary in systematic ways from study non-participants on un-measured dimensions. For example, the use of a web-based survey means that potential respondents are more likely to participate if they are comfortable with the electronic interface and frequently check their school e-mail.

A final set of limitations are related to measurement. The Scale of Economic Abuse has not been used up to this point outside of IPV service seeking populations, and thus the SEA-12's validity for this population is not established. Future studies should evaluate the psychometric properties of the SEA-12 in other non-service seeking populations. Additionally, the tangible social support measure, while validated and demonstrating strong reliability in other samples, has a coefficient alpha of .66 in this sample, suggesting potential issues with its reliability (Payne et al. 2012). Finally, the measure of economic hardship did not differentiate between joint hardships (i.e. hardships experienced indirectly by living with family members) and individual hardships. Future research should separate the types of economic hardships to increase the understanding of the hardships experienced by the survivor.

Conclusion

Developing effective strategies for addressing the economic consequences of abuse is central to disrupting cycles of victimization. The clear association the current study observed between experiencing abusive tactics and women's extent of economic hardship is particularly concerning because, "for women, the consequences of poverty include not only hardships such as homelessness and hunger but also additional vulnerability to being trapped in relationships with abusive men" (Brush 2004, p. 24). For survivors faced with violence and economic insecurity, poverty compounds and extends the consequences of IPV. It increases survivors' dependence on their partners for the basic necessities of life, and limits their access to available resources that they might otherwise be able to mobilize in the face of violence and coercion (Brush 2004; Raphael 2000). Future work should recognize that social support may be necessary but not sufficient to buffer the impacts of violence on survivors' economic experiences, and work to build strategies for supplementing survivors' social networks and access to tangible resources in order to disrupt experiences of economic hardship.

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