



Economic Abuse Experiences and Depressive Symptoms among Victims of Intimate Partner Violence

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Abstract

There are significant, detrimental effects of physical, sexual, and psychological intimate partner violence (IPV) on victims' mental health and well-being. However, little is known about the impact of economic abuse. To address this gap, the purpose of this study was to examine the association between economic abuse and depression and to explore whether the association between economic abuse and depression could be accounted for by other forms of IPV victimization (physical, sexual, and psychological abuse). Data from 457 female victims of IPV, recruited from 14 domestic violence programs across 10 states and Puerto Rico, were examined to explore the association between economic abuse and depressive symptoms. A series of hierarchical regressions were used to examine whether the addition of economic abuse improved the association between depression over and above participants' sociodemographic characteristics and experiences of psychological, physical, and sexual IPV. The majority (93%) of participants reported experiencing economic abuse from their intimate partner. The findings from a series of multiple regression analyses revealed that economic abuse was uniquely associated with depression after accounting for other forms of IPV victimization and the sociodemographic characteristics of the participants. Implications include the need for screening, intervention, and prevention of economic abuse among IPV victims and continued research regarding economic abuse experiences.

Keywords Intimate partner violence · Domestic violence · Economic abuse · Depression

Intimate partner violence (IPV) is a major public health concern. The Centers for Disease Control and Prevention (CDC) defines IPV as physical, sexual, or psychological harm by a current or former partner or spouse (CDC 2013). It is estimated that the annual cost of intimate partner violence in the United States, including medical costs, mental health costs, and loss of productivity, is \$5.8 billion (CDC 2003). Researchers have found that victims of physical, sexual, and psychological IPV are more likely to use healthcare services and to develop a range of physical and mental health consequences (Black et al. 2011; Breiding et al. 2008). However, despite numerous studies documenting the impact of physical, psychological, and sexual abuse on depressive symptomatology, few studies exist that document the impact of economic abuse on depression. Therefore, the aim of this study was to

examine the association between economic abuse experiences and depressive symptoms among victims of intimate partner violence.

Economic Abuse

Although a great deal of research has been conducted over the past 40 years to examine the prevalence and impact of physical, psychological, and sexual abuse; the scientific community has focused far less on economic abuse. While researchers have identified a variety of economic abuse tactics (Adams et al. 2008; Eriksson and Ulmestig 2017; Jury et al. 2017; Postmus et al. 2012b, 2016b; Sanders 2015; Sedziafa et al. 2017); researchers often do not examine economic abuse and subsume economic abuse under psychological abuse in research studies (Stylianou et al. 2013). It was not until 2008 that Adams et al. created the first Scale of Economic Abuse (SEA) and not until 2016 that Postmus, Plummer, and Stylianou revised and shortened the SEA to the SEA-12. In 2013, Stylianou et al. utilized a confirmatory factor analysis to

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provide evidence that economic abuse was a construct unique from psychological, physical, and sexual abuse.

Economic abuse occurs when a perpetrator utilizes behaviors that “control a woman’s ability to acquire, use and maintain economic resources, thus threatening her economic security and potential for self-sufficiency” (Adams et al. 2008, p.564). Economic abuse occurs in three main ways: (a) controlling the victim’s access to economic resources, (b) sabotaging the victim’s ability to obtain and maintain employment, and (c) exploiting the victim’s personal economic situation (Postmus et al. 2016a, b).

Abusers control victims’ economic situations by preventing victims from using or accessing available resources. These tactics include denying access to money, dictating use of transportation, putting the victim on an allowance, and monitoring all money spent (Adams et al. 2008, Postmus et al. 2016a; Wettersten et al. 2004). Abusers sabotage victims’ ability to obtain and maintain employment by discouraging or actively forbidding education, training, and/or employment. Researchers have documented a variety of abusive tactics used by perpetrators to interfere with their partners’ employment, such as sabotaging the car, threatening physical harm, failing to show up for childcare or transportation, stealing the car keys, draining gas from the car, preventing sleep, hiding clothes, inflicting injuries, and harassing the victim at work (Adams et al. 2008; Anderberg and Rainer 2013; Borchers et al. 2016; Hadeed and Lee 2010; Postmus et al. 2012a; Showalter 2016).

Abusers economically exploit victims by actively destroying their economic situation. This can occur in a variety of ways, including stealing money, generating debt under the victim’s name, opening up credit cards under the victim’s name, stealing the victim’s checkbook, ATM, or credit card, gambling shared money, and not paying the utilities (Adams et al. 2008; Postmus et al. 2016a). Ultimately, all of the previously mentioned behaviors represent ways that abusers attempt to control victims’ ability to acquire, use, and maintain economic resources.

The Impact of Intimate Partner Violence on Mental Health

Researchers have demonstrated associations between IPV history and medical and psychosocial diagnoses, both observed in clinical settings and self-reported by victims (Afifi et al. 2009; Beydoun et al. 2012; Breiding et al. 2008; Devries et al. 2013; Ellsberg et al. 2008). These researchers have found that victims of psychological, physical, and sexual IPV are more likely to use healthcare services and to develop a range of mental health consequences compared to individuals without IPV experiences.

While most researchers have examined outcomes across broad medical categories, some researchers have explored the relationship between IPV experiences and depressive symptoms specifically (Beydoun et al. 2012; Bonomi et al. 2009; Devries et al. 2013; Lipsky et al. 2009; Dillon et al. 2013; Hankin et al. 2010; Mburia-Mwalili et al. 2010). Researchers have documented the relationship between IPV experience and major depressive disorder, depressive symptoms, postpartum depression, and suicide attempts (Beydoun et al. 2012; Devries et al. 2013; Dillon et al. 2013; Vaeth et al. 2010). Beydoun et al. (2012) conducted a systematic review and meta-analysis of observational studies and found that 9%–28% of major depressive disorder and postpartum depression could be attributed to lifetime IPV experiences. The relationship between IPV experience and depression remains across multiple forms of IPV experiences including physical, psychological, and sexual abuse (Vaeth et al. 2010). As noted by Dillon et al. (2013), the severity and chronicity of the IPV experiences is associated with the severity of depressive symptoms. Furthermore, experiencing more than one type of abuse (physical, sexual, and/or emotional/psychological) increases the probability of having depressive symptoms.

The Impact of Economic Abuse on Mental Health

Although researchers have demonstrated an association between IPV history and mental health problems, and specifically with depression; the majority of researchers have examined the effects of psychological, physical, and sexual abuse and have ignored the impact of economic abuse experiences on mental health outcomes. Only a few researchers have demonstrated an association between economic abuse experiences and psychological outcomes (Antai et al. 2014; Hamdan-Mansour et al. 2011; Nancarrow et al. 2008; Postmus et al. 2012a; Voth Schrag 2015).

Four research studies conducted by Nancarrow et al. (2008), Hamdan-Mansour et al. (2011), Antai et al. (2014), and Voth Schrag (2015) have examined the cross-sectional relationship between economic abuse and psychological outcomes. Nancarrow et al. (2008) examined the cross-sectional relationship between economic abuse and mental health among cohabitating, heterosexual partners, living in the Bowen Basin and Mackay region of Central Queensland. Their findings indicated that women, who reported physical, sexual, psychological, social-psychological, or economic abuse at any stage of their relationship, were more likely to show evidence of depression at 3.7 times, 4.8 times, 3.0 times, 4.2 times, and 4.7 times more likely, respectfully. Similarly, Hamdan-Mansour et al. (2011) examined the cross-sectional relationship between marital abuse and psychological well-being among women in the southern region of Jordan. They

found that physical, psychological, and social and economic abuse were all significantly and negatively associated with psychological well-being.

Antai et al. (2014) examined the differential association of economic, physical, and psychological abuse on psychological distress and suicide attempts. Data were derived from the 2008 Philippines' Demographic and Health Surveys (PDHS), a nationally representative, household sample survey conducted with women aged 15–49 years. Antai et al. (2014) found positive associations between economic, physical, and psychological abuse and suicide attempts and psychological distress. Furthermore, economic abuse was a stronger predictor of psychological distress than physical or psychological abuse. Based on the results, Antai et al. (2014) suggested that economic abuse had a greater association with psychological distress than other forms of abuse. Finally, Voth Schrag (2015) assessed the mediating impact of depression on the association between three forms of IPV (economic abuse, physical/sexual abuse, and emotional abuse) and later experiences of material hardship. Data were drawn from 3282 women with children interviewed in the Fragile Families and Child Wellbeing Study. The author revealed that, when controlling for experiencing material hardship at baseline, reporting economic abuse at baseline was associated with a 2.4 times greater likelihood of meeting the clinical cutoff for depression at baseline. While all four of these studies documented cross-sectional associations between economic abuse experiences and psychological studies, none of the studies utilized validated measures of psychological, physical, or economic abuse experiences.

In order to examine the relationship between economic abuse and depression over time, Postmus et al. (2012a) conducted a study using data from the Fragile Families and Child Wellbeing Study. The researchers utilized a longitudinal approach to examine the impact of psychological, physical, and economic abuse on mothers' levels of depression and parenting behaviors. The results of Postmus et al.'s study (2012a) indicated that mothers who experienced physical, psychological, or economic abuse at Year 1 were more likely to experience a depressive episode in Year 5. When controlling for demographic variables, mothers who experienced economic abuse at Year 1 were 1.9 times more likely to exhibit depression than mothers who had not experienced abuse. Similarly, mothers who experienced physical or psychological abuse were more likely to experience depression (1.4 and 1.8 times more likely, respectively). Furthermore, when testing for level and changes in abuse over time, only economic abuse significantly predicted maternal depression. Based on these findings, Postmus et al. (2012a) suggested that economic abuse had a greater impact on depression over time than other forms of abuse. However, similar to previously mentioned cross-sectional studies, Postmus et al. (2012a) did not include validated measures of psychological, physical, or economic abuse.

In sum, the previous researchers provided preliminary evidence to the hypothesis that economic abuse influenced depressive symptoms among victims of IPV. However, previous researchers studying economic abuse used only two to five non-validated items to measure economic abuse experiences. Further research is needed to examine the impact of economic abuse on depressive symptoms utilizing validated measures of economic abuse experiences among victims of IPV. The purpose of this study was to contribute to the growing literature on IPV by providing a cross-sectional view of the associations between economic abuse and depression. The researcher also aimed to examine whether the association between economic abuse and depression could be accounted for by other forms of IPV victimization (physical, sexual, and psychological abuse) and/or the sociodemographic characteristics (race/ethnicity, age, born in the US, children, employment, and income) of the participants. By better understanding the unique relationship economic abuse may have with depressive symptoms, professionals can better tailor their assessments of and services for victims of economic abuse.

To that end, this study is designed to disentangle the relative effect of economic abuse on depressive symptoms by examining the following research questions:

1. What is the relationship between economic abuse and psychological abuse, physical abuse, sexual abuse, and depression among IPV victims?
2. Are abuse experiences (economic, psychological, physical, and sexual abuse), depression, and participant sociodemographic characteristics (age, born in the US, children, employment, and income) related?
3. After controlling for participants' sociodemographic characteristics and abuse experiences (physical violence, psychological abuse, and sexual abuse), what is the relationship between economic abuse and depression?

Methods

Design and Procedures

The aim of this study was to examine the association between economic abuse experiences and depressive symptoms among victims of intimate partner violence. Data for this study came from a larger parent study which utilized a longitudinal, randomized control design to examine the impact of the *Moving Ahead through Financial Management* program (www.clicktoempower.org). The *Moving Ahead through Financial Management* program, created by The Allstate Foundation in collaboration with the National Network to End Domestic Violence (NNEDV), was implemented with IPV victims receiving services in domestic violence shelters and

advocacy organizations across the United States. The curriculum was created to help victims identify the signs of economic abuse and its impact, increase their knowledge of financial issues, enhance their ability to manage their finances, and obtain the confidence they need to rebuild their financial lives. Five modules included in the curriculum covered Understanding Financial Abuse, Learning Financial Fundamentals, Mastering Credit Basics, Building Financial Foundations, and Creating Budgeting Strategies. The researchers of the parent study, a randomized control trial, found that IPV victims who received the financial literacy curriculum intervention had higher levels of self-reported financial knowledge, financial intentions, and financial behaviors, and lower levels of financial strain, than IPV victims who received services as usual (Postmus et al. 2015). For this study, the researcher utilized this dataset because it included validated measures of abuse experiences – physical, psychological, sexual, and economic abuse experiences – and of depressive symptoms.

Data Collection

For the parent study, the research team recruited potential participants from 14 domestic violence agencies across seven states (Connecticut, Iowa, New Jersey, New York, Texas, Wisconsin, and Rhode Island) and Puerto Rico which had obtained grants to introduce the *Moving Ahead through Financial Management* curriculum to their clients. The research team selected agencies from locations representing different socioeconomic backgrounds, from city and suburban locations, and from the Northeast, Midwest, Texas, and Puerto Rico regions. In addition, agencies that provided services targeted to both English and Spanish speaking clients were included. The research team instructed advocates to distribute flyers to female victims of intimate partner abuse to inform the clients about the study. Advocates invited female IPV victims to participate in the study if they (a) were a current victim of abuse, (b) were 18 years or older, and (c) were willing to attend individual and group sessions to receive the economic empowerment curriculum.

Women who expressed interest in participating in the study completed a contact sheet which requested personal contact information, including safe phone numbers and email addresses; women also indicated whether they wanted to complete the interview in English or Spanish. Next, the advocate sent the contact sheets to the research team. Members of the research team then contacted the women to set up the initial face-to-face interviews. The interviews lasted for approximately one hour and included numerous validated quantitative measures and open-ended qualitative questions. The research team then scheduled three more interviews, following the delivery of the curriculum, over a one-year period. The research team provided gift card incentives to participants starting at

\$20 for the first interview, and increasing thereafter (\$25, \$30, and \$40). The university's Institutional Review Board approved all data collection procedures and forms.

Due to attrition in the larger longitudinal study, data for this study came from the first wave of data in order to examine the extent to which victims experienced economic abuse, along with relationships between sociodemographic variables and experiences of psychological, physical, and sexual abuse, among the full sample of 457 female victims of IPV.

Measures

The research team developed the survey instrument for the parent study using several validated scales across a number of variables. For this study, validated measures of economic abuse; physical, psychological, and sexual abuse; and depressive symptoms were included in the analysis. In addition, several questions on sociodemographic variables were included measuring race/ethnicity, age, place of birth, children, employment, and income. The research team initially designed the instrument in English and then translated the instrument into Spanish. Three bilingual researchers, representing different Latino backgrounds (Mexico, Puerto Rico, and Chile) reviewed the Spanish version of the instrument to address language issues and aid in understanding biases.

Economic Abuse The original Scale of Economic Abuse (SEA; Adams et al. 2008) involved a 28-item scale that identified the frequency of economic abuse that participants experienced in their relationship. The SEA included two subscales: Economic Control (17 items) and Economic Exploitation (11 items). Postmus et al. (2016a) evaluated the original SEA through confirmatory and exploratory factor analyses and reduced the SEA to the SEA-12. The SEA-12 involved a 12-item scale that identified the frequency of economic abuse that participants experienced in their relationships across three subscales including Economic Control (5 items; e.g. “make important financial decisions without talking with you about it first”), Employment Sabotage (4 items; e.g. “do things to keep you from going to your job”), and Economic Exploitation (3 items; e.g. “spend the money you needed for rent or other bills”). For this study, the SEA-12 was utilized to rate how often a partner had exhibited financially abusive behaviors in the past 12 months. Participants indicated such frequency by using a five-point scale with answers ranging from 1 (*never*) to 5 (*quite often*). The scale demonstrated strong reliability among this sample with an alpha coefficient of 0.89.

Physical, Psychological, and Sexual Abuse Physical, psychological, and sexual abuse from an intimate partner was assessed by using the Abuse Behavior Inventory - Revised (ABI-R; Postmus et al. 2016b). The original ABI (Shepard and Campbell 1992) represented a commonly used measure

to assess for physical and psychological abuse experiences. The ABI included 30 items encompassing two subscales: Physical Abuse (10 items) and Psychological Abuse (20 items). While the ABI was a commonly used measure in the field of IPV, only the scale developers, Shepard and Campbell (1992) examined the ABI's reliability and validity. Shepard and Campbell (1992) tested the ABI among 178 men and women recruited from an inpatient substance abuse treatment facility. The original research was, therefore, limited to a small sample size and the final scale contained only two subscales, physical abuse and psychological abuse, even though items reflecting sexual abuse ("pressured you to have sex," "physically forced you to have sex," and "physically attacked the sexual parts of your body") and economic abuse ("prevented you from having money for your own use," "put you on an allowance," and "stopped you or tried to stop you from going to work or school") were included in the measure.

Given the limitations to the original ABI; Postmus et al. (2016b) re-tested and revised the scale to the ABI-R which included 25 items across three sub-scales including physical abuse (9 items; e.g. "threatened to hit or throw something at you"), psychological abuse (13 items; e.g. "called you a name and/or criticized you"), and sexual abuse (3 items; e.g. "pressed you to have sex in a way you didn't like"). In the ABI-R, two of the economic abuse items included in the psychological subscale of the ABI ("put you on an allowance" and "stopped you or tried to stop you from going to work or school") were dropped from the scale while the item "prevented you from having money for your own use" was incorporated into the psychological abuse subscale of the ABI-R. While the ABI-R does not include a subscale on economic abuse experiences, it is important to note that one item on economic abuse is included in the psychological abuse subscale. As this is a validated measure, the measure was used in its validated form in this study.

In this study, interviewers asked participants to indicate how often a partner committed specific abusive acts over the last 12 months. The survey response items ranged from 1 (*never*) to 5 (*very often*). The ABI-R exhibited strong reliability and construct validity in the validation study (Postmus et al. 2016b). Among this sample, the ABI-R demonstrated a reliability coefficient of 0.95, with the Physical Violence, Psychological Abuse, and Sexual Abuse subscales all demonstrating strong internal consistency, with alpha coefficients of 0.93, 0.92, and 0.85, respectively.

Depression The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff 1977), developed by the National Institute of Health, was used to assess current depressive symptomatology in the general population. The CES-D included components of depressed mood, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disorders. The instrument consisted of a 20-

item, self-report scale which has been used previously with victims of IPV (Cobb et al. 2006; Datner et al. 2007; Schumm et al. 2006). Participants reported how often they experienced depressive symptomatology over the past week on a scale of 0 (*less than one day*) to 3 (*five to seven days*). For determining levels of depression, the item responses were summed (four items are reverse coded) and scores of 16 or greater were used to indicate depressive illness (Radloff 1977).

In their study of women who had used domestic violence shelter programs, Campbell et al. (1995) found that 83% of the women reported at least mild depression on the CES-D upon shelter exit. Similarly, Ham-Rowbottom et al. (2005) interviewed women who had graduated from either an emergency or second-stage shelter using the CES-D and found that 43% of the women reported clinical levels of depression. Among this sample, the scale demonstrated strong internal reliability with an alpha coefficient of 0.81.

Sociodemographic Characteristics Race/ethnicity was assessed by asking participants to indicate the racial/ethnic group she considered herself with the following categories: White, African American, Latina/Hispanic, Asian/Pacific Islander, Native American, or Other. The categories were later collapsed into White, African American, Latina/Hispanic, or Other for analysis. Age was calculated by asking each participant her year of birth and subtracting the year of the interview from the year of the participant's birth. Participants were asked whether they had children for whom they were financially responsible (0 = "no", 1 = "yes"). In addition, participants were asked whether they were born in the United States (0 = "no", 1 = "yes"). To measure current employment participants were asked, "Are you currently employed?" with response options including "yes, full-time," "yes, part-time," or "no". The item was re-coded into a dichotomous variable by combining responses from "yes, full-time" and "yes, part-time" (employment, 0 = "no", 1 = "yes") as the sample was almost evenly split between participants unemployed (54.9%) and employed (45.1%). To measure the participant's annual household income, participants were asked, "in the past 12 months, what has been your average annual household income?" The categorical response options included "\$0 to \$10,000," "\$10,001 to \$15,000," "\$15,001 to \$25,000," "\$25,001 to \$35,000," and "more than \$35,000". This variable was collapsed for this analysis into a dichotomous variable with "\$0 to \$10,000" and "more than \$10,000" as the sample was almost evenly split between participants reporting "\$0 to \$10,000" (48.4%) and "more than \$10,000" (51.6%).

Data Analysis

First, descriptive statistics were used to examine the sample's sociodemographic variables and to examine the mean scores of physical abuse, psychological abuse, sexual abuse,

economic abuse, and depressive symptoms. Prevalence rates of abuse experiences among this sample were calculated based on the percentage of women reporting each form of abuse and the overlap of the experiences of the four different forms of abuse (physical, psychological, sexual, and economic abuse) were examined. Next, bivariate analyses were conducted between the different types of abuse (economic, physical, psychological, and sexual abuse), depressive symptomatology, and participant characteristics (age, born in the US, children, employment, and income). Finally, a series of hierarchical regressions were used to examine whether the addition of economic abuse improved the association between depression over and above participants' sociodemographic characteristics and experiences of psychological, physical, and sexual IPV. The first step for each model was a multivariate regression examining the relationship between sociodemographic characteristics (race/ethnicity, age, born in the US, children, employment, and income) and depression. In the second step, psychological, physical, and sexual abuse were entered. In the final step, economic abuse was entered. By simultaneously controlling for other forms of IPV and sociodemographic factors, the third step provided the most stringent test of the association between economic abuse and depression.

Little's Missing Completely at Random (Little and Rubin 2014) test was performed and found to be nonsignificant ($p = 0.46$), indicating that the pattern of missing data was not significantly different from a pattern of randomly missing data.

Table 1 Prevalence of the overlap and frequency between abuse types

Combination type	Number and frequency (%)
Rarely abused	6 (1.3%)
Physical only	1 (0.2%)
Psychological only	8 (1.8%)
Economic only	6 (1.3%)
Psychological + Physical	10 (2.2%)
Psychological + Sexual	1 (0.2%)
Psychological + Economic	48 (10.5%)
Physical + Economic	1 (0.2%)
Physical + Psychological + Economic	136 (29.8%)
Physical + Psychological + Sexual	4 (0.9%)
Psychological + Economic + Sexual	16 (3.5%)
Psychological + Physical + Sexual	1 (0.2%)
Psychological + Physical + Sexual + Economic	218 (47.7%)

Combinations that yielded 0 were eliminated from the chart. The rarely abused category represents six women who experienced abuse but rated the abuse as having occurred "rarely" over the past 12 months. To count for abuse in this analysis, the participant must have experienced abuse "sometimes, often, and/or very often." Also note that all of the women in this study were recruited from domestic violence agencies; hence, it is expected that all of the women had experienced at least one form of abuse

There was less than 1% missing data on each variable with the exception of income in which 2% was missing. Due to the small amount of randomly missing data, all analyses were run utilizing listwise deletion, which excluded the entire record from the analysis if any single value was missing.

Participants

There were 457 female IPV victims who participated in the baseline interviews. The mean age was 36 years ($SD = 9.15$). The participants were racially diverse, with 17.5% of the participants identifying as Caucasian, 20.2% as African American, 53.9% as Latina/Hispanic, and 8.3% as "Other." Approximately half (51.9%) of the participants were born in the United States. Almost half (48%) of the participants reported a yearly income under \$10,000. Just over 45% of the participants were employed. The majority of participants (80%) reported having children.

Table 1 contains results examining the overlap between the four types of abuse (physical, psychological, sexual, and economic abuse). In most cases, participants who reported experiencing one form of IPV also reported experiencing other forms of IPV. Almost half (47.7%) of the participants reported experiencing all four forms of abuse. Almost all of the participants reported experiencing economic abuse (93.0%), psychological abuse (96.8%), and physical abuse (81.2%), while just over half (52.5%) reported experiencing sexual abuse. A third of the participants (34.0%) reported experiencing only three forms of abuse with the majority of those participants reporting physical, psychological, and economic abuse experiences (29.8%). Only 13% of the participants reported experiencing only two forms of abuse. The majority of the participants who experienced only two forms of abuse reported experiencing psychological and economic abuse (10.5%). Finally, only 3% of the participants reported experiencing only one form of abuse.

Results

Research Question 1: What is the Relationship between Economic Abuse and Psychological Abuse, Sexual Abuse, and Depression among IPV Victims?

The participants reported a range of economic abuse experiences. Table 2 presents the means, standard deviations, frequencies, and correlations with psychological abuse, physical abuse, sexual abuse, and depression for each of the items in the Scale of Economic Abuse - Revised. On a Likert scale ranging from 1 (*never*) to 5 (*quite often*), the participants reported a mean economic abuse experiences score of 2.64 ($SD = 0.99$). In order to examine the regularity with which participants experienced the range of abusive behaviors,

frequency scores were created. The frequencies were calculated by recoding responses on the abuse items so that participants who endorsed the item at 3 “sometimes”, 4 “often”, or 5 “quite often” were recoded as 1 (yes, did experience) and participants who endorsed abuse items at a 1 “never” or 2 “rarely” were coded as 0 (no, did not experience) in order to minimize over-estimating abuse experiences.

The frequencies among the economic abuse items ranged from 77.8% ($N = 354$, $M = 3.62$, $SD = 1.49$; “Make important financial decisions without talking with you about it first”) to 15.4% ($N = 70$, $M = 1.50$, $SD = 1.06$; “Beat you up if you said you needed to go to work”). Over three quarters of the participants reported experiencing the following items: “Make important financial decisions without talking with you about it first” (77.8%, $N = 354$, $M = 3.62$, $SD = 1.49$), “Demand to know how money was spent” (73.7%, $N = 335$, $M = 3.38$, $SD = 1.50$), and “Keep financial information from you” (70.6%, $N = 321$, $M = 3.38$, $SD = 1.60$). Over half of the participants reported experiencing the following items: “Make you ask him/her for money” (52.8%, $N = 240$, $M = 2.72$, $SD = 1.64$), “Spend the money you needed for rent or other bills” (63.5%, $N = 288$, $M = 3.02$, $SD = 1.59$), and “Pay bills late or not pay bills that were in your name or in both of your names” (55.2%, $N = 250$, $M = 2.80$, $SD = 1.62$). All items on the economic abuse scale were moderately and significantly positively correlated with the scales of psychological abuse, physical abuse, sexual abuse, and depression.

The most commonly experienced form of abuse was psychological abuse (96.8%, $N = 441$, $M = 3.51$, $SD = 1.00$), followed by economic abuse (93%, $N = 424$, $M = 2.64$,

$SD = 0.99$), physical abuse (81.2%, $N = 370$, $M = 2.46$, $SD = 1.14$), and sexual abuse (52.5%, $N = 239$, $M = 2.16$, $SD = 1.25$). The participants also reported a depression mean score of 22.33 ($SD = 13.35$). According to Radloff’s (1977) cut-off score of 16 to reflect individuals with depressive illness, 63% of the participants met the cut-off for depression.

Research Question 2: Are Abuse Experiences (Economic, Psychological, Physical, and Sexual Abuse), Depression, and Participant Sociodemographic Characteristics (Age, Born in the US, Children, Employment, and Income) Related?

Next, bivariate correlations were conducted between all forms of intimate partner violence (economic, physical, psychological, and sexual abuse), depressive symptomatology, and participant characteristics (age, born in the US, children, employment, and income). Table 3 illustrates the results of the correlations. All forms of abuse were significantly, moderately correlated with the strongest relationships between psychological and economic abuse ($r = 0.70$, $p < 0.001$) and psychological and physical abuse ($r = 0.69$, $p < 0.001$). In addition, all forms of abuse were significantly correlated with depression with the strongest relationships with economic abuse ($r = 0.30$, $p < 0.001$) and psychological abuse ($r = 0.29$, $p < 0.001$). In regard to the sociodemographic variables, age was negatively correlated with physical abuse ($r = -0.11$, $p < 0.05$) while being born in the US was positively correlated with physical abuse ($r = 0.13$, $p < 0.001$) and negatively correlated with

Table 2 Means, standard deviations, frequencies, number, and correlations for economic abuse items (SEA-12) items. Frequencies calculated for responses of a 3, 4 or 5 (on a scale of 1–5)

Items	<i>M</i>	<i>SD</i>	Frequency (% <i>N</i>)	Psychological abuse	Physical abuse	Sexual abuse	Depression
Make important financial decisions without talking with you about it first.	3.62	1.49	354 (77.8)	0.50***	0.23***	0.27***	0.23***
Demand to know how money was spent.	3.38	1.50	335 (73.7)	0.58***	0.36***	0.31***	0.21***
Keep financial information from you.	3.38	1.60	321 (70.6)	0.47***	0.23***	0.22***	0.18***
Make you ask him/her for money.	2.72	1.64	240 (52.8)	0.47***	0.33***	0.28***	0.19***
Demand that you give him receipt and/or change when you spent money.	2.63	1.61	225 (49.4)	0.56***	0.41***	0.41***	0.22***
Spend the money you needed for rent or other bills.	3.02	1.59	288 (63.5)	0.52***	0.36***	0.30***	0.22***
Pay bills late or not pay bills that were in your name or in both of your names.	2.80	1.62	250 (55.2)	0.39***	0.28***	0.25***	0.18***
Build up debt under your name by doing things like use your credit card or run up the phone bill.	2.24	1.58	172 (37.8)	0.38***	0.30***	0.30***	0.19***
Do things to keep you from going to your job.	2.50	1.56	222 (48.9)	0.46***	0.35***	0.25***	0.16*
Demand that you quit your job.	1.98	1.46	140 (31.0)	0.39***	0.35***	0.28***	0.21***
Threaten to make you leave work.	1.93	1.37	136 (30.1)	0.43***	0.45***	0.32***	0.19***
Beat you up if you said you needed to go to work.	1.50	1.06	70 (15.4)	0.35***	0.51***	0.35***	0.20***

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

Table 3 Correlations among IPV scores, depression, and participant characteristics

	1	2	3	4	5	6	7	8	9	10
Abuse										
Economic (1)	1									
Psychological (2)	0.70***	1								
Physical (3)	0.51***	0.69***	1							
Sexual (4)	0.45***	0.55***	0.59***	1						
Depression (5)	0.30***	0.29***	0.25***	0.19***	1					
Age (6)	0.05	0.01	-0.11*	0.04	0.05	1				
Born in US (7)	0.02	0.03	0.13**	-0.11*	0.03	-0.01	1			
Children (8)	-0.03	-0.03	-0.07	-0.08	-0.10*	0.37***	0.16***	1		
Employed (9)	-0.11*	-0.10*	-0.12*	0.02	-0.12*	0.07	0.16***	0.08	1	
Income (10)	-0.06	-0.09	-0.14**	-0.16**	-0.05	0.26***	-0.08	-0.01	0.22***	1

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

sexual abuse ($r = -0.11$, $p < 0.05$). Employment was negatively correlated with economic abuse ($r = -0.11$, $p < 0.05$), psychological abuse ($r = -0.10$, $p < 0.05$), and physical abuse ($r = -0.12$, $p < 0.05$) while an annual household income of \$10,000+ was negatively correlated with physical abuse ($r = -0.14$, $p < 0.01$) and sexual abuse ($r = -0.16$, $p < 0.01$). Finally, depression was positively correlated with all forms of abuse and negatively correlated with having children ($r = -0.10$, $p < 0.05$) and being employed ($r = -0.12$, $p < 0.05$).

Research Question 3: After Controlling for Participants' Sociodemographic Characteristics and Abuse Experiences (Physical Violence, Psychological Abuse, and Sexual Abuse), What is the Relationship between Economic Abuse and Depression?

Finally, a series of hierarchical regressions were used to examine whether the addition of economic abuse improved the association between depression over and above participants' sociodemographic characteristics and experiences of psychological, physical, and sexual IPV. Results of the regression models are presented in Table 4. The Step 1 model (which included only sociodemographic characteristics) was not statistically significant, $R^2 = 0.03$, $F(8, 436) = 1.55$, $p = 0.14$; adjusted $R^2 = 0.01$. The addition of IPV experiences to the prediction of depression (Step 2) led to a significant increase in R^2 of 0.08, $\Delta F(3, 432) = 12.27$, $p < 0.001$. The results of Step 2 found that psychological abuse was significantly associated with depression ($\beta = 2.9$, $p < 0.01$). The addition of economic abuse to the prediction of depression (Step 3) also led to a significant increase in R^2 of 0.02, $\Delta F(1, 431) = 8.58$, $p < 0.01$. The results of Step 3 found that economic abuse, and not psychological abuse, was significantly associated with depression ($\beta = 2.67$, $p < 0.01$).

Discussion

The findings from this study of 457 female IPV victims indicate that economic abuse was a common experience. Almost all (93%) of the IPV victims in this sample reported experiencing economic abuse from their intimate partner in the past 12 months. While almost half (47.7%) of the participants reported experiencing physical, psychological, sexual, and economic abuse; approximately one third (29.8%) of the participants reported experiencing physical, psychological, and economic abuse; and 10.5% of the participants reported experiencing psychological and economic abuse. These findings suggest that victims experiencing one form of abuse (physical, psychological, or sexual) are also likely experiencing economic abuse. In addition, 63% of the participants met the clinical cut-off for depression. The prevalence of depression among this sample is similar to other samples of IPV victims. Among two other studies that reported the CES-D scores of IPV victims, Campbell et al. (1995) found 83% of victims existing domestic violence emergency shelter met criteria for depression while Ham-Rowbottom et al. (2005) found that 43% of victims existing domestic violence emergency and transitional shelter met criteria for depression.

This researcher was the first to examine the relationship between economic abuse and depressive symptoms among female victims of IPV using a validated measure of economic abuse. Findings from this study align with findings from studies conducted by Antai et al. (2014), Nancarrow et al. (2008), Hamdan-Mansour et al. (2011), Postmus et al. (2012a), and Voth Schrag (2015) suggesting a significant relationship between economic abuse experiences and depression and/or psychological well-being. Interestingly, researchers have historically (Antai et al. 2014; Hamdan-Mansour et al. 2011; Nancarrow et al. 2008; Postmus et al. 2012a; Voth Schrag 2015) found significant impacts of multiple forms of abuse experiences on depression and/or psychological well-being,

Table 4 Hierarchical Multiple Regression Predicting Depression from Participant Characteristics and Abuse Experiences

Variable	Step 1 Sociodemographic variables β	Step 2 Psychological, physical, & sexual abuse B	Step 3 Economic abuse β
Constant	47.46***	32.23***	32.15***
Race/Ethnicity			
Black/African-American	-1.99	-1.94	-2.15
Latina	0.96	1.19	1.12
Other	-1.59	-2.21	-2.77
Age	0.05	0.06	0.05
Born in the U.S.	0.96	0.89	0.87
Employed	-2.98*	-2.37	-2.04
Children	-2.59	-2.28	-2.32
Income			
Less than \$10,000	-0.93	-0.07	-0.23
Psychological abuse		2.91**	1.23
Physical abuse		1.00	0.95
Sexual abuse		0.17	0.01
Economic abuse			2.67**
R^2	0.03	0.10	0.12
F	1.55	4.54***	4.94***
ΔR^2		0.08	0.02
ΔF		12.27***	8.58**

*** $p < 0.001$, ** $p < 0.01$, * $p < .05$; B = Unstandardized Beta

while the findings from this study only suggested a significant association between economic abuse experiences; and not physical, psychological, or sexual abuse experiences; and depressive symptoms. Similarly, Postmus et al. (2012a) found that when testing for level and changes in abuse experiences over time, only economic abuse experiences significantly predicted depression.

One potential reason for the significant association between economic abuse experiences; and not physical, psychological, or sexual abuse experiences; on depressive symptoms is the way in which economic abuse is often used by perpetrators to create economic dependency and maintain the abusive relationship. Economic abuse, therefore, may have a range of cascading impacts including preventing the victim from leaving the abusive relationship, preventing the victim from gaining and/or maintaining economic opportunities, impacting the victim’s ability to financially care for his or her children, and destroying the victim’s economic foundation. Given the uniqueness of economic abuse and the impact economic abuse has on the longer term financial capabilities of IPV victims, it is possible that the additional financial hardship created by economic abuse – that is not created by other forms of abuse – may explain the strong relationship between economic abuse and depression. However, further research is needed to understand the relationship between economic abuse, physical abuse, psychological abuse, sexual abuse,

and depressive symptoms over time and to study what potential moderating and mediating variables, such as financial hardship, exist in the relationship between economic abuse experiences and depressive symptoms.

Limitations

As an exploratory study in an emerging field, the findings need to be understood within the limitations of the study. First, the sample consisted of self-selecting female victims of IPV who were receiving services from domestic violence agencies and volunteered to participate in a financial literacy program. Therefore, these women did not represent all women who experience IPV; instead, they represented a select group of women who sought services and were willing and able to participate in a research study and a financial literacy program. Over half (53.9%) of the participants identified as Latina/Hispanic, over half (51.9%) of the participants reported being born outside of the United States, and almost half (48%) of the participants reported an annual income of \$10,000 or less. The overrepresentation in some of the sample sociodemographic variables limits the generalizability of the findings to all victims of IPV. Research is needed to examine the relationship between economic abuse and depression across a diverse sample of IPV. Additionally, given the financial hardship experienced by the study participants, and by many IPV victims,

further research is needed to understand the relationship between economic abuse, financial hardship, and mental health outcomes.

The abuse measures utilized in this study, the ABI and SEA-12, only asked about abuse experiences that occurred within the previous 12-months. Therefore, any childhood or adult abuse experiences that occurred prior to that 12-month period were not captured in the data. Without being able to control for any earlier traumatic experiences, it is possible that these unmeasured traumatic experiences also influenced the outcome variable of depression. Furthermore, the measure for depression, the CES-D, only assessed depressive symptoms over the past week and no additional markers of depression were used. There were no questions about mental health services (whether therapeutic or medical services) provided to these participants. Therefore, it was not possible to control for any participants receiving mental health treatment within the domestic violence agencies, with an outside mental health provider, or with a primary care practitioner. Furthermore, the data most likely contain respondent biases, inherent to all interview data, which involves either underreporting or overreporting on issues, such as experiences of intimate partner violence and depressive symptoms. Finally, as data are cross-sectional, no causal relationships can be examined. Given the findings of the current study, there is a clear need for additional longitudinal work examining the impact of economic abuse experiences on depression over time.

Implications for Practice and Policy

The significant association between economic abuse experiences and depressive symptoms has important practice and policy implications in the field of IPV. According to findings from this study, most victims of IPV who seek services from domestic violence agencies experience economic abuse. Researchers and advocates need to identify and implement practical assessment tools that can be utilized in domestic violence advocacy and mental health programs to assess for victims' economic abuse experiences. Advocates need training on how to explore economic abuse with IPV victims. Unlike physical abuse, many economic abuse behaviors are covert behaviors that may not be readily apparent to either the victim or the advocate as a form of abuse. Advocates need to understand the dynamics that occur in economically abusive relationships and be equipped with tools to assess for economic abuse experiences with victims of IPV.

Domestic violence organizations need to be aware of the relationship between economic abuse experiences and depressive symptoms. While most domestic violence organizations focus on providing supportive counseling and empowerment interventions to address depressive symptoms among victims, agencies might want to spend more time collaborating with victims in protecting their financial situation from their

abusers in order to enhance victims' emotional health. In order to do this, agencies need to assess for economic abuse experiences and develop financial safety plans with clients. For many organizations, this means integrating economic empowerment into their vision of key service provision priorities, committing resources to train staff and implement economic programming, and advocating for funding and policies that improve the financial conditions for victims of IPV.

State and federal policies designed to prosecute offenders and support victims of IPV need to be expanded to acknowledge and prohibit economic abuse. Researchers and advocates need to advocate for the creation of criminal offenses of economic abuses to protect and support IPV victims. State and federal policies are also needed to provide employment protections to IPV victims and mandate that places of employment develop and implement policies to support employees experiencing IPV. Furthermore, federal equal employment opportunity laws prohibiting discrimination against job applicants or employees who experience IPV are needed.

Overall, while the study of economic abuse remains a new literature in the field of IPV, there remains a gap in the understanding of the relationship between economic abuse and depression among victims. This study provides greater knowledge in understanding the association between economic abuse and depression. This knowledge can be used to create opportunities for improved services and policies to support victims of IPV to rebuild their lives.

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