

The Effect of Self-Efficacy on the Association Between Social Support and Relationship Alternatives Among Female Intimate Partner Violence Victims

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This study examined the mediational effect of self-efficacy on the relation between enacted social support and perceived quality of relationship alternatives among an economically disadvantaged community sample of 101 female intimate partner violence (IPV) survivors. Three types of support—directive guidance, nondirective guidance, and positive social exchange—were positively associated with self-efficacy. In each case, the effect of enacted social support on perceived quality of relationship alternatives was fully mediated by women's self-efficacy. Support in the form of tangible assistance was unrelated to women's self-efficacy. Above and beyond the impact of each type of social support, non-White ethnicity and frequency of physical violence were negatively associated with self-efficacy. However, race and violence frequency did not impact the mediational effect of self-efficacy. These findings support the inclusion of women's support networks in advocacy and therapeutic work with IPV survivors.

KEYWORDS: partner abuse; investment model; relationship persistence; empowerment

Intimate partner violence (IPV) is a widespread problem, which results in long-term mental and physical health consequences. Exact rates of IPV vary according to the population examined, assessment methods used, and type of abuse (Lewis & Fremouw, 2001). In a 2005 survey conducted by the Centers for Disease Control and

Prevention, approximately one in four women older than the age of 18 years reported experiencing IPV at some point in their lives.

Numerous studies have documented the negative impact IPV has on women's quality of life. One population-based study by Hathaway et al. (2000) found that women who experienced IPV in the past year were more likely to experience anxiety and depression, be treated for injuries, and miss work or school compared to women who had not experienced IPV. Among IPV victims, severity of abuse is also associated with severity of depression, anxiety, and posttraumatic stress symptoms (Calvete, Corral, & Estévez, 2008; Calvete, Estévez, & Corral, 2007). Specifically among Mexican American women, IPV has been linked to poor perceived mental and physical health (Lowen & Vega, 2001). In addition, in a predominately African American sample of welfare recipients, chronicity of IPV was associated with poorer health outcomes over time (Staggs & Riger, 2005). Thus, irrespective of women's ethnicity, IPV is associated with a wealth of negative outcomes. Importantly, the responsibility for the negative consequences of IPV rests with the perpetrators of violence, not the victims. However, because many partner abuse interventions lack consistent support for their efficacy (see Barner & Carney, 2011, and Babcock, Green, & Robie, 2004 for reviews), identification of intrapersonal victim characteristics, which are both associated with stay/leave decisions and are amenable to change, may help service providers promote women's safety and well-being.

PERCEIVED RELATIONSHIP ALTERNATIVES

Despite their experiences of abuse, IPV victims often have emotions and aspirations similar to those of women in nonabusive relationships. As Barnett (2001) explains, they often love their partners and hope that their relationships will succeed in the future. Thus, although IPV victims experience abuse and negative sequelae, the decision to stay or leave is a complex process. Along these lines, violence severity is not always the best predictor of whether or not women will leave abusive relationships (Katz, Tirone, & Schukrafft, 2012; Rhatigan, Moore, & Stuart, 2005).

Instead, Rusbult and Martz's (1995) Investment Model, an interpersonal theory based on general relationship decision-making factors, has been suggested as one way to predict IPV victims' stay/leave decisions. This model posits that relationship persistence depends on an individual's quality of alternatives, investment, and relationship satisfaction, which, in turn, all contribute to a person's level of commitment. Although some studies suggest that the investment model functions similarly for IPV victims and nonvictims (Rhatigan & Street, 2005; Rusbult & Martz, 1995), others have demonstrated that the model is impacted in unique ways by various forms of abuse (Edwards, Gidycz, & Murphy, 2010). Alternatively, Rhatigan, Shorey, and Nathanson (2011) have suggested that one facet of the model in particular, perceived quality of alternatives, may be the best indicator of termination in an abusive relationship. Perceived quality of alternatives is defined as the extent to which women believe their needs can be met by sources other than their current partner. These

sources may include family, friends, service agencies, or women's own independent efforts (Rusbult, Martz, & Agnew, 1998). Perceived quality of alternatives is an important outcome variable to study among victimized women, in part, because it represents a belief, which may be amenable to change with intervention. Unlike other investment model variables, quality of alternatives is not directly related to an individual's abusive partner. For instance, it could be difficult for an intervention to alter a victim's commitment because it involves feelings toward their partner such as love and responsibility. Interventions targeting quality of alternatives have the potential to broaden victims' view of their options outside their relationship while their feelings about their partner remain the same.

As an outcome measure, perceived quality of alternatives does not provide definitive information about whether or not an IPV victim remains separated from her partner. By contrast, many studies have used women's relationship status to indicate women's separation from their abuser (Lerner & Kennedy, 2000). However, women may return to the partner who abused them, multiple times before leaving permanently, with some ultimately remaining in the relationship (Cataneo, Bell, Goodman, & Dutton, 2007). This has led to the definition of leaving as a process rather than a single act (Anderson & Saunders, 2003). Instead, others have promoted the examination of cognitive factors such as quality of alternatives, proposing they are "catalysts which may serve as forces to reevaluate rationalizations and initiate serious attempts to escape" (Ferraro & Johnson, 1983, p. 326). Importantly, even after many IPV victims attempt to definitively leave their partners, they are still in danger of reabuse (Fleury, Sullivan, & Bybee, 2000). This article takes the perspective described by Rhatigan, Street, and Axsom (2006) wherein leaving may not always be the best choice for women and that stay/leave decisions are a process.

SELF-EFFICACY

Self-efficacy has been defined as an individual's belief in their ability to exert control over his or her immediate environment (Anderson & Saunders, 2003). IPV may leave women feeling powerless, potentially making them less likely to seek out alternatives to their relationships. Accordingly, many advocacy groups for IPV survivors work to restore women's sense of agency by attempting to empower their clients (McDermott & Garofalo, 2004). Empowerment is said to occur when women are enabled to use their own skills and access resources which allow them to cope more effectively (Johnson, Worell, & Chandler, 2005). One study of this paradigm demonstrated that among 204 women recruited from battered women's shelters, empowerment was associated with lower levels of posttraumatic stress disorder (PTSD) and depression (Wright, Perez, & Johnson, 2010). In general, the principle of empowerment suggests self-efficacy is a prerequisite to women successfully using tools which would assist them in leaving their abusive partner. In other words, a woman could have a wide variety of alternatives to the current relationship at her

disposal such as money or case management services; however, whether or not she leaves may depend on her belief that she is capable enough to use these resources. Self-efficacy is also a particularly relevant factor to examine given the multiple efforts required to obtain safety in the context of a violent relationship or to permanently leave a partner. According to Bandura's (1977) theory of behavior change, beliefs about one's efficacy determine the strength and duration of an individual's efforts in the face of adversity.

Existing research suggests that self-efficacy is associated with exercising personal agency in violent relationships. In one study of 191 IPV survivors in a rural community, women who had been out of a relationship 6 months or more had significantly higher self-efficacy than women who had not yet left a relationship or those who had been out of the relationship for less than 6 months (Lerner & Kennedy, 2000). To date, only one published study has examined the relationship between self-efficacy and investment model factors. In this cross-sectional study of female college sexual assault victims, self-efficacy mediated the impact of depressive and posttraumatic stress symptoms on perceived quality of alternatives (Rhatigan et al., 2011). Put another way, whether or not mental health symptoms impacted women's perceived options to their abusive partner depended on how efficacious they felt.

SOCIAL SUPPORT

Social support is another intrapersonal factor that may be associated with positive outcomes among IPV victims. However, existent research on social support and IPV is limited, and most research has not examined its relation to stay/leave behavior. In one study, Beeble, Bybee, Sullivan, and Adams (2009) examined perceived social support among 160 IPV survivors over the course of 2 years. Controlling for psychological and physical abuse severity, social support was associated with decreases in depression and increases in quality of life over time. Cross-sectional IPV research also indicates an inverse relation between social support and depression (Mburia-Mwalili, Clements-Noloe, Lee, Shadley, & Wang, 2010).

Social support can be conceptualized as an integral aspect of women's empowerment because, according to Johnson and colleagues (2005), empowerment involves the activation and encouragement of one's social network. Importantly, IPV victims' social support may be altered with targeted assistance from service agencies, as suggested by an experimental study of women receiving domestic violence shelter services (Tan, Basta, Sullivan, & Davidson, 1995). Compared to a control group who received no services postdischarge, women who were randomly assigned to weekly advocate support after their shelter stay (including a focus on improving social support) reported more close friends and more satisfaction with social support over time. In the same study, various aspects of the quality of women's social support were generally related to psychological well-being but not to whether or not women remained with their current partner.

Some studies suggest that the beneficial effects of social support may depend on individual's sense of self-efficacy; however, results have been mixed. For instance, a community-based study of expecting mothers found that the relationship between the receipt of parental support and a reduction in depression symptoms over time was mediated by women's self-efficacy (Haslam, Pakenham, & Smith, 2006). Meanwhile, in a study of HIV-positive hurricane survivors, general enacted social support was positively associated with posttraumatic growth and self-efficacy; self-efficacy was associated with posttraumatic growth (with PTSD symptom severity as a moderator), but there were no indirect effects of social support (Cieslak et al., 2009). Among IPV survivors, social support has also been associated with women's self-reported self-efficacy of obtaining needed resources (Tan et al., 1995).

Mixed findings regarding the association between social support and self-efficacy may be related to the fact that many studies assess perceived social support or general enacted support. Perceived support is the *perception* that support has been available in the past and will be again in the future (Gleason, Iida, Shrout, & Bolger, 2008). Meanwhile, enacted social support refers to assistance that has actually been provided in times of need (Schumm, Briggs-Phillips, & Hobfoll, 2006). Although conceptually related, research has demonstrated that these two concepts are theoretically and empirically distinct (Haber, Cohen, Lucas, & Baltes, 2007; Norris & Kaniasty, 1996). In fact, the receipt of some types of support may reduce self-efficacy if an individual considers it a sign of personal shortcomings or if the receipt prompts the individual to negatively compare themselves to the support givers (Barrera, 1986).

To better delineate the role enacted social support plays in the lives of IPV victims, it may be necessary to distinguish between different types of enacted support. The Inventory of Socially Supportive Behaviors (ISSB; Barrera, Sandler, & Ramsey, 1981) distinguishes between positive social exchange, which includes spending time with an individual as a diversion, and tangible assistance, the provision of material goods or services. The measure also assesses directive guidance, which includes specific advice, and nondirective guidance, including more general emotional support. To date, only one study has examined the correlates of distinct types of enacted support among IPV victims. Among pregnant IPV victims, practical assistance (similar to tangible assistance) was positively associated with self-esteem and negatively related to anxiety symptoms. Meanwhile, emotional support (similar to nondirective guidance) was not related to any mental health variables (Levendosky et al., 2004).

THE PRESENT STUDY

Empowerment, in the form of receiving social support and experiencing self-efficacy, may help women perceive more quality alternatives to their abusive relationships. Although there is some evidence that self-efficacy mediates the relationship between perceived and enacted social support and health outcomes, no published studies have

examined whether self-efficacy mediates the relation between enacted support and women's perceived relationship alternatives. Using a sample of female IPV victims, we examined the relations among four types of enacted social support, self-efficacy, and relationship alternatives. We expected each type of social support to be positively associated with self-efficacy. In addition, we predicted that self-efficacy would mediate the relations between each type of enacted social support and quality of relationship alternatives.

METHOD

Participants

Participants were 102 women with histories of IPV recruited from a midsized city in the southeastern United States. One woman was excluded from this analysis because of severe intellectual impairment as evidenced during the research interview. This study was conducted using self-report data from the baseline sessions of the remaining 101 women. Participants' ages ranged from 18 to 61 years ($M = 32.28$, $SD = 11.28$). The sample was predominately White (61%) and African American (32%). There was also one woman who reported Native American, Indian/Middle Eastern, Mixed, and Other, respectively. Most participants were single (42%) or separated/divorced (31%). Fewer women reported being married (12%) or engaged to be married (8%). Thirty-two percent of women reported that they were currently living with their partners. In terms of employment, the women reported being unemployed with the greatest frequency (59%), followed by being on disability (15%), employed full-time (13%), and employed part-time (9%). The women reported a diverse range of educational employment including some high school (25%), a high school degree (27%), technical school (13%), and at least some college (26%). Most women reported an income of less than \$100 a week (62%), with smaller percentages of women reporting incomes of \$101–\$300 a week (24%) and greater than \$300 a week (8%). On average, the women had approximately two children ($M = 2.46$, $SD = 1.23$) and had been in their relationship for 5 years (in months: $M = 64.42$, $SD = 84.84$). Of the 90 women who reported their sexual orientation, 87 (97%) were heterosexual, 2 (2%) were gay/lesbian, and 1 (1%) was bisexual.

Procedure

Women were solicited through flyers for "The Women's Health Study," which were placed at local businesses and the city's domestic violence court and shelter. Once participants called the research lab, they were screened for inclusion criteria that required they were 18 years of age or older, were currently in a relationship with a romantic partner or separated from that partner within the past 6 weeks, and experienced at least one act of physical violence from that romantic partner in the past 6 months. Physical violence was defined using items from the revised Conflict

Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), such as being pushed, hit, grabbed, or shoved; having something thrown at them that could hurt; or having a partner attempt to hit them. After providing informed consent, participants completed a research interview, described in detail elsewhere (Nathanson, Shorey, Tirone, & Rhatigan, 2012), and a series of brief self-report questionnaires. Afterward, participants were offered referral information and were paid \$100 cash. All study procedures were approved by the institutional review board of the authors' university.

Measures

Demographics were obtained using an 11-item questionnaire developed by the investigators assessing age, race/ethnicity, employment, income, education, relationship status, sexual orientation, and number of children.

Alternatives. Quality of alternatives was assessed using the Investment Model Scale (IMS; Rusbult et al., 1998). The measure has demonstrated good convergent and discriminant validity as well as internal consistency (Rusbult et al., 1998). All women were asked to complete the measure with their abusive partner in mind even if they considered the relationship to be over at the time of the interview, given the process nature of stay/leave decision making. Women rated the five alternative items on a 9-point scale (0 = *do not agree at all*, 8 = *agree completely*). Items for the perceived quality of alternatives subscale were summed, such that higher scores indicate greater perceived quality of alternatives. In this study, internal consistency was good ($\alpha = .82$).

Enacted Support. The ISSB (Barrera et al., 1981) was used to examine enacted social support. The ISSB contains 40 items, which assess participants' exposure to enacted support in the previous month. Specifically, the ISSB contains four subscales that each measure a distinct form of enacted support, including tangible assistance (e.g., provided you with a place to stay), directive guidance (e.g., taught you how to do something), nondirective support (e.g., expressed interest and concern in your well-being), and positive social exchanges (e.g., joked and kidded to try to cheer you up; Barrera & Ainlay, 1983). Respondents indicated the frequency with which they received each type of support using a 5-point scale (1 = *not at all*, 5 = *about every day*). Participants were instructed only to consider support received from members of their social network (i.e., family and friends). The internal consistency (Barrera et al., 1981) and factor structure (Finch et al., 1997) of the ISSB have been shown to be acceptable. Internal consistency was good to excellent for positive social exchange ($\alpha = .90$), nondirective guidance ($\alpha = .88$), directive guidance ($\alpha = .91$), and tangible assistance ($\alpha = .94$).

Self-Efficacy. The Perceived Self-Efficacy Scale (PSES; Coppel, 1980) was used to examine women's self-efficacy. This 22-item measure examines the degree to which

respondents’ believe they can handle difficult life circumstances and stressors. Examples of items include *I believe I use my skills to their best advantage* and *I rely on my inner strength to deal with problems*. Responses range from 1 to 5 (1 = *not at all like me*, 5 = *very much like me*). The psychometric properties of the PSES are good, with past research finding excellent internal consistency and good test–retest reliability in a sample of college students (Coppel, 1980). For this study, internal consistency of the PSES was .86.

Intimate Partner Violence. The CTS2 (Straus et al., 1996) was used to assess the degree to which women experienced aggression victimization from their intimate partner in the previous 6 months. This study used the 12 items pertaining to physical aggression, which demonstrated excellent internal consistency ($\alpha = .91$). Women indicated the frequency with which their partner committed each violent act according to an 8-point scale. Responses were summed such that higher scores indicate greater frequency of violence. The CTS2 has demonstrated good internal consistency and construct validity across a range of populations (Straus, 2004).

Results

Correlations, means, and standard deviations of mediation model variables are presented in Table 1. Self-efficacy was positively associated with directive guidance, non-directive guidance, positive social exchange, and quality of alternatives. All forms of social support were associated with one another. Quality of alternatives was positively associated with nondirective guidance and positive social exchange.

Because race has been associated with many outcomes among IPV victims (Bachman & Coker, 1995; Lipsky, Caetano, Field, & Larkin, 2006), *t* tests were run comparing White (*n* = 32) women to women of color on the mediation model variables. For these analyses women who identified as “other” were grouped with women who

TABLE 1. Correlations, Means, and Standard Deviations of Study Variables

	1	2	3	4	5	6	7
1. Self-efficacy	—	—	—	—	—	—	—
2. Directive guidance	.22*	—	—	—	—	—	—
3. Nondirective guidance	.25*	.76**	—	—	—	—	—
4. Positive social exchange	.25*	.78**	.83**	—	—	—	—
5. Tangible assistance	.05	.63**	.62**	.70**	—	—	—
6. Quality of alternatives	.25*	.14	.20*	.21*	.05	—	—
7. Physical violence	−.12	.27**	.00	.10	.17	−.08	—
<i>M</i>	3.09	20.64	9.76	11.66	11.64	19.14	62.42
<i>SD</i>	0.62	11.22	5.76	6.34	9.71	9.46	64.76

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

TABLE 2. Multiple Regression Analyses Testing the Effect of Social Support on Self-Efficacy

	<i>b</i>	<i>SE</i>	β	<i>R</i> ²	<i>F</i>
Model	—	—	—	.18	6.96
Directive guidance	.02	.01	.26**	—	—
Race	-.41	.12	-.31**	—	—
Physical violence	-.36	.11	-.20**	—	—
Model	—	—	—	.18	6.70
Nondirective guidance	.03	.01	.24*	—	—
Race	-.42	.12	-.32**	—	—
Physical violence	-.22	.11	-.19	—	—
Model	—	—	—	.17	6.58
Positive social exchange	.02	.01	.24*	—	—
Race	-.41	.13	-.31**	—	—
Physical violence	-.23	.11	-.20*	—	—
Model	—	—	—	.12	4.22
Tangible assistance	.05	.10	.05	—	—
Race	-.41	.13	-.31**	—	—
Physical violence	-.22	.11	-.20	—	—

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

reported they were Black ($n = 65$). The four women who declined to endorse their race were excluded from these comparisons. On average, White women had higher self-efficacy ($M = 3.36$, $SD = 0.61$) than women of color ($M = 2.98$, $SD = 0.59$; $t[96] = 2.91$, $p < .01$). However, the two groups did not differ in perceived quality of alternatives ($t[96] = 0.77$, *ns*) or frequency of physical violence ($t[96] = 0.86$, *ns*). Likewise, White women and women of color reported similar levels of directive guidance ($t[96] = 0.41$, *ns*), nondirective guidance ($t[96] = -0.19$, *ns*), tangible assistance ($t[96] = 1.20$, *ns*), and positive social exchange ($t[96] = 0.11$, *ns*). Because multiple theories also implicate the amount of physical violence in women's stay/leave decisions (Gelles, 1976; Walker, 1983), frequency of physical violence was also controlled for in subsequent analyses.

To examine mediation, two separate regression analyses were performed for each type of enacted social support. First, the effect of social support on self-efficacy was examined, controlling for physical violence and race (Table 2). Next, separate regression analyses were performed with each type of social support and self-efficacy predicting perceived quality of alternatives while controlling for physical violence and race (Table 3). Where appropriate, the indirect effect of self-efficacy on the relationship between social support and alternatives was examined using the z formula provided by MacKinnon, Lockwood, Hoffman, West, and Sheets (2002).

TABLE 3. Multiple Regression Analyses Testing Self-Efficacy as a Mediator of the Relationship Between Social Support and Quality of Alternatives

	<i>b</i>	<i>SE</i>	β	<i>R</i> ²	<i>F</i>
Model 1	—	—	—	.03	1.09
Directive guidance	0.14	0.09	.16	—	—
Race	1.45	2.06	.07	—	—
Physical violence	−1.60	1.84	−.09	—	—
Model 2	—	—	—	.10	2.47
Directive guidance	0.08	0.09	.09	—	—
Self-efficacy	4.23	1.66	.28	—	—
Race	3.17	2.11	.16	—	—
Physical violence	−0.34	1.86	−.02	—	—
Model 1	—	—	—	.05	1.48
Nondirective guidance	0.03	0.23	.24*	—	—
Race	1.37	2.04	.07	—	—
Physical violence	−0.80	1.77	−.05	—	—
Model 2	—	—	—	.10	2.70
Nondirective guidance	0.21	0.17	.13	—	—
Self-efficacy	4.08	1.65	.27	—	—
Race	3.06	2.11	.15	—	—
Physical violence	0.08	1.76	.00	—	—
Model 1	—	—	—	.05	1.76
Positive social exchange	0.32	0.15	.21*	—	—
Race	1.45	2.04	.07	—	—
Physical violence	−1.00	1.77	−.06	—	—
Model 2	—	—	—	.11	2.87
Positive social exchange	0.23	0.15	.15	—	—
Self-efficacy	4.00	1.64	.26*	—	—
Race	3.09	2.09	.15	—	—
Physical violence	−0.08	1.76	.00	—	—
Model 1	—	—	—	.01	0.36
Tangible assistance	0.05	0.10	.05	—	—
Race	1.54	2.09	.08	—	—
Physical violence	−0.98	1.81	−.06	—	—

**p* < .05.

Directive Guidance. The first model, in which directive guidance predicted self-efficacy, was significant (Table 2). As predicted, social support was positively associated with self-efficacy. In the same equation, frequency of physical violence and non-White ethnicity were negatively associated with self-efficacy. When quality of alternatives was regressed on directive guidance, physical violence, race, and self-efficacy, this model was also significant (Table 3). A main effect was observed only for self-efficacy. Meanwhile, directive guidance, physical violence, and race were unrelated to quality of alternatives. When effects were compared, the resulting z value (1.94) exceeded the critical value provided by MacKinnon et al. (2002). This indicates self-efficacy fully mediated the relation between directive guidance social support and perceived availability of alternatives.

Nondirective Guidance. When nondirective guidance was used to predict self-efficacy the model was also significant (Table 2). Nondirective guidance was positively associated with self-efficacy. Again, frequency of physical violence and non-White ethnicity were negatively associated with self-efficacy. Likewise, the model predicting quality of alternatives was significant (Table 3). Self-efficacy, and not nondirective guidance, physical violence, or race, was a positive predictor of quality of alternatives. Results indicated that the effect of nondirective guidance on alternatives was mediated by self-efficacy ($z = 1.79$).

Positive Social Exchange. The model including positive social exchange was significant (Table 2). Main effects on self-efficacy were observed for positive social exchange, physical violence, and race. The model predicting quality of alternatives was also significant (Table 3). Self-efficacy was positively related to quality of alternatives, whereas positive social exchange, physical violence, and race were not. In addition, self-efficacy mediated the relation between positive social exchange and quality of alternatives ($z = 1.76$).

Tangible Assistance. Similarly, the model in which tangible assistance predicted self-efficacy was significant (Table 2). There was not a main effect of tangible assistance; however, there were effects for race and physical violence. This suggests that beyond the effect of enacted tangible assistance, identifying as a woman of color and physical violence were both associated with lower self-efficacy. The failure of the fourth type of social support to predict the mediator precluded further examination of mediation.

DISCUSSION

This study examined the mediational effect of self-efficacy on the relationship between four types of enacted social support and perceived relationship alternatives among female IPV survivors. Results demonstrated that self-efficacy mediated the association between directive guidance, nondirective guidance, and positive social

exchange and perceived quality of alternatives. Tangible assistance, on the other hand, was not related to self-efficacy above and beyond race and frequency of physical violence. Among this sample, non-White ethnicity and frequency of physical violence were associated with lower self-efficacy above and beyond the impact of each type of social support. However, race and violence frequency did not impact the degree to which self-efficacy mediated the relation between directive guidance, nondirective guidance, or positive social exchange and perceived relationship alternatives. In other words, the more violence an IPV victim experienced (or when she identified as being a woman of color), the more likely she was to have poor self-efficacy. Meanwhile, the effect of social support on perceived quality of alternatives was dependent on self-efficacy for all women, on average.

In general, these results suggest that enacted social support may play an important role in women's perceived alternatives to abusive relationships. However, the impact of social support on women's perceived quality of alternatives may ultimately depend on how efficacious women feel. If women do not feel confident in their own abilities, they may believe they have no choice but to stay with an abusive partner. These results suggest that efforts to increase specific types of social support from social network members may increase women's self-efficacy. The combination of these factors, in turn, may help promote changes in the way women think about the opportunities and resources available to them outside of the violent relationship.

Importantly, many women experiencing IPV want the violence to end but not necessarily their relationship (McDermott & Garofalo, 2004). In addition, abusive partner behaviors may escalate when women attempt to leave their relationships (Bell, Goodman, & Dutton, 2007). Thus, it is of critical importance that women's values, wishes, and environmental constraints be respected in the context of IPV research and intervention. However, even for women who choose to stay, interventions aimed at self-efficacy and social support have the potential to improve IPV survivors' quality of life. Consistent with our mediational models, women may act with increased agency within violent relationships. For example, a woman who is experiencing feelings of self-efficacy, receiving support from friends, and considering her options could be more likely to develop a safety plan. Such plans usually involve steps such as outlining exit strategies from different areas in the home and hiding cash and spare car keys. These kinds of actions could help women escape when violence escalates without necessarily terminating their relationship, if relationship termination is not desired by victims.

Notably, we failed to find support for this mediational relationship with tangible assistance. The theory of conservation of resources (COR) could be used to explore this finding (Hobfoll & Freedy, 1990). This hypothesis suggests that all resources, particularly social support, are obtained at a cost. When one individual receives assistance from a supportive other, the individual must give something back to maintain the relationship. Consequently, some individuals may be less likely to seek help, particularly under times of stress, because they lack the resources to return the favor.

When an IPV victim receives tangible assistance, “repayment” could overwhelm her already taxed resources, leaving her feeling indebted to materially reciprocate support. At the same time, COR does not necessarily contradict the other mediational models. COR posits that self-efficacy is an internal resource, which enables individuals to both use social support and offset the relational costs of receiving support from others. In other words, individuals who feel efficacious could also feel more confident about their ability, for example, to provide reciprocal nondirective guidance to a supportive other. However, self-efficacy may not be as strongly linked to an individuals’ ability to repay material goods and services.

Several limitations of this study should also be noted. The data presented here were cross-sectional in nature. As such, the hypothesized relationships between variables may change when they are evaluated across time, precluding any assumptions of causality. For instance, women who possess more options outside of a violent relationship (i.e., another nonviolent romantic interest) may feel more efficacious and seek to expand their social network. Longitudinal work is needed to clarify the nature of the relationships between study variables. The sample also lacked a control group of nonvictims; thus, it is unclear whether our findings are unique to IPV victims. Finally, results from our small sample of economically disadvantaged women may not generalize to IPV victims in the population at large.

In addition, the experiences of men, a substantial portion of the IPV population, were not evaluated. Although some theories suggest that IPV has a unique impact on women because of power differences associated with gender still prevalent in today’s society, it is difficult to empirically test such theories with data from only one gender. Hence, to draw meaningful conclusions about the role of gender, and to validate and understand the experiences of male victims, future research is needed on the variables of interest including both men and women. Social constructionism, a feminist theory that involves the exploration of the meanings, privileges, and oppressions associated with various identities, may be particularly useful to this end. Accordingly, an accurate understanding of the impact of social support and self-efficacy on individuals in violent relationships requires consideration of individuals’ gender, race, ethnicity, socioeconomic status, sexual orientation, and experiences of oppression. For example, Johnson et al. (2005) suggest women’s experiences of racism and sexism work to undermine empowerment, defined as the belief that one can engage with and use available forms of support. In summary, if future research in this area does not address indicators of relative privilege, oppression, and power, it may fail to capture nuanced similarities and differences across race, gender, and sexual orientation (Vanwesenbeeck, 2009).

Other factors may also impact the relationship between social support, self-efficacy, and relationship alternatives. According to traditional feminine gender roles, women should find fulfillment out of being in a romantic relationship, causing them to value relationship goals over other life goals, even in the presence of abuse (Chung, 2005). Adherence to gender roles may also foster acceptance of IPV as a normal part of relationships. Similarly, gender role socialization may inhibit

women's economic and emotional independence, factors which are key in perceiving alternatives to an abusive relationship (Barnett, 2001). Hence, when women value their relationship as an important part of their feminine identity, it may be difficult for them to experience empowerment. For example, a recent study by Katz et al. (2012) found that after experiencing physical violence, college-aged women may engage in more sacrifices for their partners, as an attempt to improve their relationship. It is possible that when traditionally feminine women receive social support, they may experience more confidence that they can improve their relationship instead of their alternatives. Additional studies are needed to examine whether gender role socialization influences these factors, ultimately making women less likely to leave.

Overall, our findings suggest received social support plays a role in IPV victims' beliefs about their abilities and their options. Service providers may wish to explore ways to integrate support members into their interventions, specifically in ways that promote victims' self-efficacy. Educating individuals about the effects of IPV and about what types of assistance to provide to victims has the potential to empower women in this population and to increase awareness of the problem of IPV in our communities.

REFERENCES

- Anderson, D. K., & Saunders, D. G. (2003). Leaving an abusive partner: An empirical review of predictors, the process of leaving, and psychological well-being. *Trauma, Violence, & Abuse, 4*, 163–191. <http://dx.doi.org/10.1177/1524838002250769>
- Babcock, J. C., Green, C. E., & Robie, C. (2004). Does batterers' treatment work? A meta-analytic review of domestic violence treatment. *Clinical Psychology Review, 23*, 1023–1053. <http://dx.doi.org/10.1016/j.cpr.2002.07.001>
- Bachman, R., & Coker, A. L. (1995). Police involvement in domestic violence: The interactive effects of victim injury, offender's history of violence, and race. *Violence and Victims, 10*, 91–106.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review, 84*, 191–215.
- Barner, J. R., & Carney, M. M. (2011). Interventions for intimate partner violence: A historical review. *Journal of Family Violence, 26*, 235–244. <http://dx.doi.org/10.1007/s10896-011-9359-3>
- Barnett, O. W. (2001). Why battered women do not leave, part 2: External inhibiting factors—social support and internal inhibiting factors. *Trauma, Violence, & Abuse, 2*(1), 3–35. <http://dx.doi.org/10.1177/1524838001002001001>
- Barrera, M., Jr. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology, 14*, 413–445.
- Barrera, M., Jr., & Ainlay, S. L. (1983). The structure of social support: A conceptual and empirical analysis. *Journal of Community Psychology, 11*, 133–143.
- Barrera, M., Jr., Sandler, I. N., & Ramsey, T. B. (1981). Preliminary development of a scale of social support: Studies on college students. *American Journal of Community Psychology, 9*, 235–447.

- Beeble, M. L., Bybee, D., Sullivan, C. M., & Adams, A. E. (2009). Main, mediating, and moderating effects of social support on the well-being of survivors of intimate partner violence across 2 years. *Journal of Consulting and Clinical Psychology, 77*, 718–729. <http://dx.doi.org/10.1037/a0016140>
- Bell, M. E., Goodman, L. A., & Dutton, M. A. (2007). The dynamics of staying and leaving: Implications for battered women's emotional well-being and experiences of violence at the end of the year. *Journal of Family Violence, 22*, 413–428.
- Calvete, E., Corral, S., & Estévez, A. (2008). Coping as a moderator between intimate partner violence and symptoms of anxiety and depression. *Violence Against Women, 14*, 886–904. <http://dx.doi.org/10.1177/1077801208320907>
- Calvete, E., Estévez, A., & Corral, S. (2007). Intimate partner violence and depressive symptoms in women: Cognitive schemas as moderators and mediators. *Behavior Research and Therapy, 45*, 791–804. <http://dx.doi.org/10.1016/j.brat.2006.07.006>
- Cattaneo, L. B., Bell, M. E., Goodman, L. A., & Dutton, M. A. (2007). Intimate partner violence victims' accuracy in assessing their risk of re-abuse. *Journal of Family Violence, 22*, 429–440. <http://dx.doi.org/10.1007/s10896-007-9097-8>
- Chung, D. (2005). Violence, control, and gender equality: Young women and heterosexual relationships. *Women's Studies International Forum, 28*, 445–455. <http://dx.doi.org/10.1016/j.wsif.2005.09.005>
- Cieslak, R., Benight, C., Schmidt, N., Luszczynska, A., Curtin, E., Clack, R. A., & Kissinger, P. (2009). Predicting posttraumatic growth among Hurricane Katrina survivors living with HIV: The role of self-efficacy, social support, and PTSD symptoms. *Anxiety, Stress, and Coping, 22*, 449–463. <http://dx.doi.org/10.1080/10615800802403815>
- Coppel, D. B. (1980). *The relationship of perceived social support and self-efficacy to major and minor stresses* (Unpublished doctoral dissertation). University of Washington, Seattle WA.
- Edwards, K. M., Gidycz, C. A., & Murphy, M. J. (2010). College women's stay/leave decisions in abusive dating relationships: A prospective analysis of an expanded investment model. *Journal of Interpersonal Violence, 26*, 1446–1463. <http://dx.doi.org/10.1177/0886260510369131>
- Ferraro, K. J., & Johnson, J. M. (1983). How women experience battering: The process of victimization. *Social Problems, 30*, 325–339.
- Finch, J. F., Barrera, M., Okun, M. A., Bryant, W. H. M., Pool, G. J., & Snow-Turek, A. L. (1997). The factor structure of received social support: Dimensionality and the prediction of depression and life satisfaction. *Journal of Social and Clinical Psychology, 16*, 323–342.
- Fleury, R. E., Sullivan, C. M., & Bybee, D. I. (2000). When ending the relationship does not end the violence: Women's experiences of violence by former partners. *Violence Against Women, 6*, 1363–1383. <http://dx.doi.org/10.1177/10778010022183695>
- Gelles, R. J. (1976). Abused wives: Why do they stay. *Journal of Marriage and Family, 38*, 659–668.
- Gleason, M. E. J., Iida, M., Shrout, P. E., & Bolger, N. (2008). Receiving support as a mixed blessing: Evidence for dual effects of support on psychological outcomes. *Journal of Personality and Social Psychology, 94*, 824–838. <http://dx.doi.org/10.1037/0022-3514.94.5.824>
- Haber, M. G., Cohen, J. L., Lucas, T., & Baltes, B. B. (2007). The relationship between self-reported received and perceived social support: A meta-analytic review. *American Journal of Community Psychology, 39*, 133–144. <http://dx.doi.org/10.1007/s10464-007-9100-9>

- Haslam, D., Pakenham, K. I., & Smith, A. (2006). Social support and postpartum depressive symptomatology: The mediating role of maternal self-efficacy. *Infant Mental Health Journal*, 27, 276–291. <http://dx.doi.org/10.1002/imhj.20092>
- Hathaway, J. E., Mucci, L. A., Silverman, J. G., Brooks, D. R., Matthews, R., & Pavlos, C. A. (2000). Health status and health care use of Massachusetts women reporting partner abuse. *American Journal of Preventative Medicine*, 19, 302–307. [http://dx.doi.org/10.1016/S0749-3797\(00\)00236-1](http://dx.doi.org/10.1016/S0749-3797(00)00236-1)
- Hobfoll, S. E., & Freedy, J. R. (1990). The availability and effective use of social support. *Journal of Social and Clinical Psychology*, 9, 91–103. <http://dx.doi.org/10.1521/jscp.1990.9.1.91>
- Johnson, D. M., Worell, J., & Chandler, R. K., (2005). Assessing psychological health and empowerment in women: The Personal Progress Scale Revised. *Women and Health*, 41, 109–129. http://dx.doi.org/10.1300/J013v41n01_07
- Katz, J., Tirone, V., & Schukrafft, M. (2012). Breaking up is hard to do: Psychological entrapment and women's commitment to violent dating relationships. *Partner Abuse*, 27, 455–469. <http://dx.doi.org/10.1891/0886-6708.27.4.455>
- Lerner, C. F., & Kennedy, L. T. (2000). Stay-leave decision making in battered women: Trauma, coping, and self-efficacy. *Cognitive Therapy and Research*, 24, 215–232. <http://dx.doi.org/10.1023/A:1005450226110>
- Levendosky, A. A., Bogat, G. A., Theran, S. A., Trotter, J. S., von Eye, A., & Davidson, W. S., II. (2004). The social networks of women experiencing domestic violence. *American Journal of Community Psychology*, 34, 95–109. <http://dx.doi.org/10.1037/a0022977>
- Lewis, S. F., & Fremouw, W. (2001). Dating violence: A critical review of the literature. *Clinical Psychology Review*, 21, 105–127. [http://dx.doi.org/10.1016/S0272-7358\(99\)00042-2](http://dx.doi.org/10.1016/S0272-7358(99)00042-2)
- Lipsky, S., Caetano, R., Field, C. A., & Larkin, G. L. (2006). The role of intimate partner violence, race, and ethnicity in help-seeking behaviors, ethnicity, and health. *Ethnicity and Health*, 11, 81–100. <http://dx.doi.org/10.1080/13557850500391410>
- Lowen, E. A., & Vega, W. A. (2001). Intimate partner violence and health: Self-assessed health, chronic health, and somatic symptoms among Mexican American women. *Psychosomatic Medicine*, 63, 352–360.
- 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. <http://dx.doi.org/10.1037/1082-989X.7.1.83>
- Mburia-Mwalili, A., Clements-Noloe, K., Lee, W., Shadley, M., & Wang, W. (2010). Intimate partner violence and depression in a population-based sample of women: Can social support help? *Journal of Interpersonal Violence*, 25, 2258–2278. <http://dx.doi.org/10.1177/0886260509354879>
- McDermott, J. M., & Garofalo, J. (2004). When advocacy for domestic violence victims backfires: Types and sources of victim disempowerment. *Violence Against Women*, 10, 1245–1266. <http://dx.doi.org/10.1177/1077801204268999>
- Nathanson, A. M., Shorey, R. C., Tirone, V., & Rhatigan, D. L. (2012). The prevalence of mental health disorders in a community sample of female victims of intimate partner violence. *Partner Abuse*, 3, 59–75. <http://dx.doi.org/10.1891/2F1946-6560.3.1.59>
- Norris, F. H., & Kaniasty, K. (1996). Received and perceived social support in times of stress: A test of the social support deterioration deterrence model. *Journal of Personality and Social Psychology*, 71, 498–511. <http://dx.doi.org/10.1037/0022-3514.71.3.498>

- Rhatigan, D. L., Moore, T. M., & Stuart, G. L. (2005). An investment model analysis of relationship stability among women court mandated to violence interventions. *Psychology of Women Quarterly*, 29, 313–322. <http://dx.doi.org/10.1111/j.1471-6402.2005.00225.x>
- Rhatigan, D. L., Shorey, R. C., & Nathanson, A. M. (2011). The impact of posttraumatic sequelae on women's commitment to violent relationships: A path analytic test of posttraumatic stress, depression, shame, and self-efficacy on investment model factors. *Psychological Trauma: Theory, Research, Practice, and Policy*, 3, 181–191. <http://dx.doi.org/10.1037/a0020646>
- Rhatigan, D. L., & Street, A. E. (2005). The impact of intimate partner violence on decisions to leave dating relationships: A test of the investment model. *Journal of Interpersonal Violence*, 20, 1580–1597. <http://dx.doi.org/10.1177/0886260505280344>
- Rhatigan, D. L., Street, A. E., & Axsom, D. K. (2006). A critical review of the theories to explain violent relationship termination: Implications for research and intervention. *Clinical Psychology Review*, 26, 321–345. <http://dx.doi.org/10.1016/j.cpr.2005.09.002>
- Rusbult, C. E., & Martz, J. M. (1995). Remaining in an abusive relationship: An investment model analysis of nonvoluntary dependence. *Personality and Social Psychology Bulletin*, 21, 558–571. <http://dx.doi.org/10.1177/0146167295216002>
- Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The Investment Model Scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships*, 5, 357–391. <http://dx.doi.org/10.1111/j.1475-6811.1998.tb00177.x>
- Schumm, J. A., Briggs-Phillips, M., & Hobfoll, S. E. (2006). Cumulative interpersonal traumas and social support as risk and resiliency factors in predicting PTSD and depression among inner city women. *Journal of Traumatic Stress*, 19, 825–836. <http://dx.doi.org/10.1002/jts.20159>
- 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. <http://dx.doi.org/10.1007/s10464-005-6238-1>
- Straus, M. A. (2004). Cross-cultural reliability and validity of the revised Conflict Tactics Scales: A study of university student dating couples in 17 nations. *Cross-Cultural Research*, 38, 407–432. <http://dx.doi.org/10.1177/1069397104269543>
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues*, 17, 283–316. <http://dx.doi.org/10.1177/019251396017003001>
- Tan, C., Basta, J., Sullivan, C. M., & Davidson, W. S., II. (1995). The role of social support in the lives of women exiting domestic violence shelters: An experimental study. *Journal of Interpersonal Violence*, 10, 437–451. <http://dx.doi.org/10.1177/088626095010004004>
- Walker, L. E. (1983). Battered women and learned helplessness. *Victimology*, 2, 525–534.
- Wright, C. V., Perez, S., & Johnson, D. M. (2010). The mediating role of empowerment for African American women experiencing intimate partner violence. *Psychological Trauma: Theory, Research, Practice, and Policy*, 2, 266–272. <http://dx.doi.org/10.1037/a0017470>
- Vanwesenbeeck, I. (2009). Doing gender in sex and sex research. *Archives of Sexual Behavior*, 38, 893–898. <http://dx.doi.org/10.1007/s10508-009-9565-8>

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