

# Journal of Interpersonal Violence

<http://jiv.sagepub.com/>

---

## **Longitudinal Predictors of Women's Experiences of Social Reactions Following Intimate Partner Abuse**

Anne P. DePrince, Courtney Welton-Mitchell and Tejaswinhi Srinivas  
*J Interpers Violence* 2014 29: 2509 originally published online 10 February 2014  
DOI: 10.1177/0886260513520469

The online version of this article can be found at:  
<http://jiv.sagepub.com/content/29/13/2509>

---

Published by:



<http://www.sagepublications.com>

On behalf of:

[American Professional Society on the Abuse of Children](#)

**Additional services and information for *Journal of Interpersonal Violence* can be found at:**

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

**Subscriptions:** <http://jiv.sagepub.com/subscriptions>

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

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


**Citations:** <http://jiv.sagepub.com/content/29/13/2509.refs.html>

>> [Version of Record](#) - Jul 21, 2014

[OnlineFirst Version of Record](#) - Feb 10, 2014

[What is This?](#)

# Longitudinal Predictors of Women's Experiences of Social Reactions Following Intimate Partner Abuse

Journal of Interpersonal Violence  
2014, Vol. 29(13) 2509–2523  
© The Author(s) 2014  
Reprints and permissions:  
sagepub.com/journalsPermissions.nav  
DOI: 10.1177/0886260513520469  
jiv.sagepub.com  


**Anne P. DePrince,<sup>1</sup> Courtney Welton-Mitchell,<sup>1</sup>  
and Tejaswinhi Srinivas<sup>1</sup>**

## **Abstract**

Researchers using the Social Reactions Questionnaire (SRQ; Ullman, 2000) have documented links between women's perceptions of social reactions following sexual assault and trauma-related distress (e.g., self-blame, problem drinking, and posttraumatic stress disorder [PTSD] symptoms). The SRQ has been used primarily with female sexual assault victims with instructions to think about reactions from other people told about the assault. Research has generally relied on cross-sectional methods and assumed that social reactions lead to trauma-related outcomes. Reliance on cross-sectional methods has impeded testing assumptions about directionality (e.g., trauma-related distress might increase negative social reactions from others). Furthermore, links between victims' reports of negative social reactions and distress might reflect an overall negative reporting bias. The current study examined women's perceptions of social reactions for an incident of intimate partner abuse (IPA) reported to law enforcement. At a baseline interview (within approximately 28 days of the IPA incident), we assessed demographic factors, characteristics of the IPA, and social support as well as depression and PTSD symptom severity. One year later, PTSD symptom

---

<sup>1</sup>University of Denver, CO, USA

### **Corresponding Author:**

Anne P. DePrince, Department of Psychology, University of Denver, 2155 S. Race Street,  
Denver, CO 80208, USA.  
Email: [adeprinc@du.edu](mailto:adeprinc@du.edu)

severity consistently predicted women's reports of negative social reactions from others, though not positive social reactions. This research advances understanding of social reactions and points to the role that PTSD symptom severity may have in contributing to social reactions, not only being a consequence of social reactions.

### **Keywords**

social reactions, intimate partner abuse, victim, PTSD, symptoms

Researchers have identified two broad categories of social reactions reported by victims of intimate violence: negative (e.g., being treated differently, victim blaming) and positive (e.g., emotional support, tangible aid; Borja, Callahan, & Long, 2006; Ullman, 2000; Ullman, Townsend, Filipas, & Starzynski, 2007). Victim blame and other negative social reactions have been linked to distress among survivors of sexual and physical violence, including poorer mental health outcomes (e.g., Ullman, 1996; Ullman & Filipas, 2001a, 2001b). Victim blame in particular has also been associated with *self*-blame and various forms of maladaptive coping (Littleton, 2010). Several studies document links between negative social reactions to sexual assault victims and posttraumatic stress disorder (PTSD) symptoms specifically (Borja et al., 2006; Ullman et al., 2007). Similarly, women exposed to intimate partner abuse (IPA) report lower self-esteem when receiving higher levels of criticism from their social networks (Levendosky et al., 2004).

While negative social reactions are clearly tied to negative mental health outcomes, links between positive social reactions and psychological symptoms are mixed. Some research suggests that positive reactions have little relationship to psychological symptoms (e.g., Ullman, 1996); still other studies point to modest benefits of positive responses (see Ahrens & Campbell, 2000, for a review). At least one study has demonstrated that higher levels of support by friends and family were linked to greater mental health service utilization (Norris, Kaniasty, & Scheer, 1990).

One of the most important methodological advancements in the study of social reactions to women experiencing intimate violence was the development of the Social Reactions Questionnaire (SRQ; Ullman, 2000). Developed through interviews with female sexual assault survivors, the SRQ taps seven types of social reactions to sexual assault victims. The social responses can be divided into negative (treat differently, distraction, take control, victim blame, egocentric) and positive (emotional support/belief, tangible aid/information support) reactions. Bivariate correlations

among the scales demonstrate that they are not simply the inverse of one another (e.g., Ullman, 2000), indicating that positive and negative social reactions represent separable constructs. Despite the methodological importance of the SRQ, the measure has yet to be used to rigorously study social reactions longitudinally.

Studies of negative social reactions to violence and distress have generally relied on cross-sectional designs, assuming that negative social reactions drive psychological distress. Given the dearth of longitudinal information, though, bystanders may also respond negatively to some forms of victim distress. Bearing witness to survivors' experiences often includes bearing witness to serious harm, including potentially profound emotional harm caused by the sexual assault. Witnessing survivors' pain can be painful to others, as reflected, for example, in the high incidence of secondary traumatization among helping professionals (see Figley, 1995). In his landmark book, *Achilles in Vietnam*, Jonathan Shay (1995) noted that trauma survivors require listeners to have the strength to "hear the story without injury . . . and . . . without having to deny the reality of the experience or to blame the victim" (p. 188).

In the immediate aftermath of violence, many women experience serious psychological distress, including PTSD symptoms (e.g., Krause, Kaltman, Goodman, Dutton, 2008) and depression (e.g., Campbell, Kub, Belknap, & Templin, 1997). While depression may be less obvious to observers, PTSD symptoms involve an oscillation between states of anxiety/arousal and avoidance, both of which may be perceptible to others. When anxious, victims monitor for threat and are on alert; arousal symptoms (e.g., increased startle response) as well as flashbacks can be emotionally painful for the survivor and witnesses. When avoidant, victims may appear "spaced out" and may try to avoid reminders of the violence or cues that bring back painful emotions and anxiety.

When confronted with the reality of trauma and trauma-related harm (in the form of PTSD symptoms), observers may be likely to respond negatively to victims, particularly if they do not have adequate training to prepare them to cope with these reactions. In fact, several theories point to compensatory strategies used by observers to manage the threat that trauma and its consequences pose to their own worldview, including victim blame and other negative reactions (e.g., Janoff-Bulman, 1992). Because PTSD may be perceptible (and painful) to witness, women experiencing more severe PTSD symptoms may incur more negative social reactions from observers. This may be particularly true of support system members and criminal justice-based personnel, relative to mental health and other service providers who are more likely to have training on coping with secondary trauma.

## Current Study

In one of the first studies (of which we are aware) to examine the impact of early distress on women's perceptions of negative social reactions longitudinally, we draw on data from a larger study of 236 women recruited from the population of IPA cases reported to law enforcement and interviewed within a month of the intimate violence. At the baseline interview, we measured women's experiences of IPA, PTSD symptom severity, depression, and social support. One year later, we measured negative social reactions. Re-assessing the assumed directionality of this relationship, though, we hypothesized that baseline PTSD symptom severity would predict negative social reactions 1 year later, even when controlling for depression, which was included to tap negative reporting bias.

## Method

### *Participants*

Participants ( $N = 236$ ) were recruited from the population of IPA cases reported to law enforcement in the Denver City and County; details on recruitment procedures are described in DePrince, Belknap, Labus, Buckingham, and Gover (2012) and DePrince, Labus, Belknap, Buckingham, and Gover (2012). Participants were diverse with regard to age (range = 18-63;  $M = 33.4$ ,  $SD = 11.0$ ) and racial/ethnic background (72% reported belonging to one or more racial/ethnic minority groups). Nearly one third of women identified as Black or African American and 39% identified as Latina or Hispanic. Almost half the sample reported having ever been married (49%). Women described their relationship status as follows: 9% married, 8% living with someone, 18% divorced, 12% separated, 2% widowed, 40% single and never married, and 7% other. Women reported the following in terms of highest level of education: 3% first to eighth grade; 27% some high school; 26% high school; 25% some college; 8% associate's degrees; 7% 4-year college degree; 2% postgraduate education; and 1% other (e.g., trade school). A socio-economic status (SES) composite score was calculated by averaging  $z$ -scores of education, occupational prestige, and income ( $M = -0.002$ ;  $SD = 0.77$ ).

### *Measures*

*Participant characteristics.* Participants were asked to report on a range of demographic variables (e.g., age, race/ethnicity, relationship status, socio-economic status).

*IPA characteristics.* Severity of the IPA incident that resulted in a report to law enforcement was assessed using the revised Conflict Tactics Scale (CTS; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The CTS is a widely used and well-validated instrument for assessing conflict in intimate relationships. We used CTS items to tally the total number of psychologically (possible range = 0-15) aggressive tactics used by the male partner against the female partner during the target incident as well as the number of injuries sustained by the female partner (possible range = 0-17). Though women were recruited into the study based on reports of non-sexual IPA, we administered the sexual coercion scale of the CTS and found that women reported sexual aggression to us in the research context that they had not reported to law enforcement. A continuous measure of the number of sexually aggressive tactics was highly skewed; therefore, we included in models the presence/absence of sexual aggression.

*PTSD symptom severity.* At baseline, PTSD symptom severity was assessed with the Posttraumatic Stress Diagnostic Scale (PDS; Foa, Cashman, Jaycox, & Perry, 1997), a 28-item measure, which is used to calculate a continuous severity score. Cronbach's alpha was .82. The PDS is one of the most commonly used measures of PTSD-related symptoms (Elhai, Gray, Kashdan, & Franklin, 2005). In the current study, the median time since incident was 26 days, with 132 women reporting exposure less than 30 days prior to the first interview. Although PTSD cannot be diagnosed earlier than 1 month post exposure, several studies have measured early PTSD symptom severity using the PDS (e.g. Turpin, Downs, & Mason, 2005) and similar measures (e.g. PTSD Symptom Scale-Self Report Version [PSS-SR]; Scher, McCreary, Asmundson, & Resick, 2008). Importantly, given the time criterion in PTSD diagnosis, we did not use the PDS to diagnose PTSD; rather, we were interested in PTSD symptom severity as a predictor of later social reactions. Consistent with our use of the measure, the PDS has been used in the aftermath of IPA exposure with female samples (e.g. Sullivan, Cavanaugh, Buckner, & Edmondson, 2009).

*Depression.* At baseline, depression symptom severity was assessed with the Beck Depression Inventory II (BDI-II; Beck, Steer, Ball, & Ranieri, 1996), a 21-item measure used to calculate a continuous depression symptom severity score. Cronbach's alpha was .89.

*Social support.* At baseline, participants were asked to complete the Interpersonal Support Evaluation List (ISEL; Cohen & Hoberman, 1983; Cohen, Mermelstein, Kamarck, & Hoberman, 1985), which provides a global



assessment of social support unrelated to the IPA. With this measure, we were able to control for global social support and isolate effects of social reactions to IPA. Cronbach's alpha was .87.

*Social reactions.* One year after the baseline interview, positive and negative social reactions were assessed with a short form version of SRQ (Ullman, 2000). Due to time constraints in the interview procedures, we administered a shortened version of the SRQ. In particular, we use the three items that loaded most strongly on each of six factors (victim blame, treated differently, distraction, took control, tangible aid, and emotional support) as reported by Ullman (2000). Thus, the 18-item, behaviorally defined self-report questionnaire measures negative reactions (e.g., victim blame, treated differently) and positive reactions (e.g., emotional support, tangible aid) to participants' disclosure of the IPA. Cronbach's alpha ranged from .72 to .85. Though the short form of the SRQ used in the current study has not been validated separate from the initial validation study of the full measure (Ullman, 2000), data from several other studies using a short form of the SRQ (e.g., Follingstad & Rogers, 2012; Littleton, & Breitkopf, 2006) or administering only the negative reaction subscales (e.g., Littleton, Axsom, Breitkopf, & Berenson, 2006; Littleton, Breitkopf, & Berenson, 2008) suggest that a reduced set of items do tap social reactions experienced by victims with good internal consistency.

### *Procedure*

Study procedures were approved by a university institutional review board before data collection began. Prior to participation in the research interview, some women were randomly selected to receive outreach from a community-based agency as part of a community coordinating response program that was later evaluated by the research team. As part of this evaluation, the research team sent a lead letter to women inviting them to participate in the Women's Health Study and then followed up with phone calls. To maximize participation, women who indicated that they would have to take public transportation to the interview were offered cab transportation. Women were also asked if they needed childcare during the testing session; if so, childcare was arranged in a room near to the office where the woman was to be interviewed. The current study is not concerned with the community coordinated response program, though analyses control for whether women were assigned to the outreach condition to ensure that links between baseline and later social reaction are not due to that outreach.

Women completed the baseline interview within a median of 26 days of the target IPA incident. At the baseline interview, participants were greeted by a female interviewer who reviewed consent materials and administered a consent “quiz” to ensure understanding of consent information. Following consent procedures, participants completed interview and questionnaire tasks. One year later, women were invited back for an additional interview, during which they completed the SRQ. At the end of both interviews, women were compensated for their time (\$50 and \$60 respectively).

## Results

One year later, we retained 189 of the 236 participants (80% retention). Of those 189 participants, 174 completed the SRQ. Analyses described below draw on data from these 174 participants. The average (*SD*) age was 33.87 years (*SD* = 10.96). One hundred and twenty-seven women (73%) identified with one or more ethnic minority groups. Twelve women (35%) reported that the IPA incident involved sexual coercion; given past research on social reactions and sexual assault, we included the presence/absence of sexual coercion in regression models. Sixty-one women (35%) were randomly assigned to community-based outreach as part of a community coordinated response; we entered this dichotomous variable as a control in the multiple regressions reported below. Means (*SD*) for all continuous variables are reported in Table 1.

### *Multiple Regression Analyses*

Table 2 describes zero-order correlations for continuous predictor variables. A series of multiple regression analyses tested the baseline contributors to two positive and four negative social reactions 1 year later. The regression models are detailed in Table 3. Only one of the two models predicting positive social reactions was significant. Specifically, the model predicting emotional support was significant,  $F(10, 144) = 1.95, p < .05$ , adjusted  $R^2 = .06$ , though the model predicting tangible support was not. The only significant predictor of emotional support was social support; PTSD symptom severity was not a significant predictor. All models predicting negative social reactions were significant, including being treated differently,  $F(10, 144) = 3.93, p < .001$ , adjusted  $R^2 = .16$ ; taking control,  $F(10, 144) = 2.97, p < .01$ , adjusted  $R^2 = .11$ ; distraction,  $F(10, 144) = 3.89, p < .001$ , adjusted  $R^2 = .16$ ; and victim blame,  $F(10, 144) = 2.87, p < .01$ , adjusted  $R^2 = .11$ . Women’s reports of PTSD symptom severity at baseline explained unique variance in all four types of negative social reactions assessed when controlling for demographics, incident characteristics, depression, and social support.



**Table 1.** Mean and SD for Continuous Measures.

	<i>n</i>	<i>M</i>	<i>SD</i>
Baseline measures			
PTSD symptom severity	171	16.35	11.54
Depression symptom total	166	13.94	9.48
Social support	166	32.85	9.40
CTS: Number of psychologically aggressive tactics	171	4.43	2.64
CTS: Number of injuries	171	3.42	3.33
Social reactions 1 year later			
SRQ: Emotional support	174	7.91	3.77
SRQ: Tangible support	174	3.99	3.41
SRQ: Treat differently	174	2.35	2.60
SRQ: Take control	174	2.84	2.74
SRQ Distraction	174	2.78	2.94
SRQ Victim blame	174	2.10	11.54

Note. PTSD symptom severity measured with the 28-item PDS (range = 0-51), such that higher scores represent greater severity and a score of 16 reflects moderate severity. Depression measured with the 21-item BDI-II (range = 0-63); higher scores represent greater severity. Social support measured with the 16-item ISEL (range = 0-46); higher scores reflect greater perceived social support. Incident characteristics measured with the CTS. Social reactions measured with short form 18-item SRQ (range = 0-72), measuring negative and positive social reactions. SRQ response scale: 0 = *never*, 1 = *rarely*, 2 = *sometimes*, 3 = *frequently*, 4 = *always*. Each scale consists of three items for a subscale range of 0 to 12. PTSD = posttraumatic stress disorder; CTS = Conflict Tactics Scale; SRQ = Social Reactions Questionnaire.

## Discussion

Controlling for IPA as well as demographic characteristics (e.g., socioeconomic status), women's reports of PTSD symptom severity at baseline predicted negative social reactions (being treated differently, victim blaming, others taking control) 1 year later, even when controlling for baseline social support. By controlling for baseline social support, these data suggest that the SRQ taps something distinct from general support. Complementing cross-sectional research that has assumed that negative social reactions put one at risk for developing PTSD (Borja et al., 2006), these findings demonstrate that the reverse is also possible. Specifically, greater PTSD symptom severity in the aftermath of IPA contributed significantly to *negative* social reactions 1 year later.

Importantly, depression scores did not contribute to later negative social reactions, suggesting something unique about distress in the form of PTSD.

**Table 2.** Zero-Order Correlations Among Continuous Predictors.

	SES	PTSD Symptom Severity	Depression	Social Support	No. of Injuries	No. of Psychologically Coercive Tactics
Age	.04	.04	.09	-.03	-.10	-.18*
SES			-.13 <sup>†</sup>	.12	-.21**	-.20*
PTSD symptom severity			.61**	-.32**	.18*	.11
Depression				-.49**	.11	.11
Social support					.03	-.08
No. of injuries						.29**

Note. PTSD = posttraumatic stress disorder.

<sup>†</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

In addition, the lack of depression–social reaction links suggests that the PTSD symptom severity–social reaction links are not due to an overall negative reporting bias. If the findings were due to an overall negative reporting bias, we would expect to have seen depression–social reaction links as well. Furthermore, IPA characteristics did not predict later social reactions. Therefore, these data suggest that there may be something unique about how people respond to expressions of distress in the form of PTSD that differs from depression or the characteristics of the abuse. In the face of women's expressions of PTSD-related distress (the hallmarks of which are arousal, avoidance, and intrusions), responders may use negative reactions to regulate their own emotions. For example, distancing oneself or blaming the woman for her experiences may help responders mitigate their own reactions to witnessing distress. Several trauma theorists have suggested that bearing witness to victims' pain is difficult and, therefore, that we may make efforts to minimize our own pain (e.g., Herman, 1997; Janoff-Bulman, 1992). These data may be among the first to hint at empirical support for such views in terms of victims' perceptions of the social reactions of others.

This study contributes to the growing literature on social reactions in important ways. First and foremost, the data provide a longitudinal view of predictors of social reactions. Taken with existing research on social reactions, this research makes clear that researchers should be thinking about social reactions and distress in a bi-directional manner. Second, this study continues work extending the study of social reactions beyond sexual assault, in this case to IPA. These results make clear that researchers should consider

**Table 3.** Regression Models Predicting Social Reactions 1 Year Later.

Model Tested	Predictor Variable	B	SE (B)	$\beta$	t
SRQ: Emotional support					
Participant characteristics	Age	-0.04	0.03	-.12	-1.43
	SES	0.57	0.39	.13	1.45
	Ethnic minority (Y/N)	-1.11	0.70	-.14	-1.59
Symptoms	PTSD symptom severity	0.02	0.03	.07	0.63
	Depression symptoms	0.06	0.04	.16	1.41
Baseline social support	ISEL total	0.08	0.04	.20	2.10*
Incident characteristics	No. injuries	0.08	0.10	.07	0.83
	No. psychologically aggressive tactics	-0.17	0.12	-.12	-1.45
	Sexual assault (Y/N)	-0.66	1.13	-.05	-0.58
	Outreach condition	0.35	0.63	.05	0.57
SRQ: Tangible support					
Participant characteristics	Age	-0.01	0.03	-.04	-0.52
	SES	-0.38	0.38	-.09	-1.02
	Ethnic minority (Y/N)	-1.07	0.67	-.14	-1.61
Symptoms	PTSD symptom severity	0.07	0.03	.24	2.22*
	Depression symptoms	-0.05	0.04	-.13	-1.11
Baseline social support	ISEL total	0.04	0.04	.10	1.01
Incident characteristics	No. injuries	0.15	0.09	.14	1.59
	No. psychologically aggressive tactics	-0.09	0.11	-.07	-0.77
	Sexual assault (Y/N)	-1.09	1.08	-.08	-1.00
	Outreach condition	-0.27	0.60	-.04	-0.45
SRQ: Treat differently					
Participant characteristics	Age	-0.00	0.02	-.01	-0.17
	SES	0.20	0.27	.06	0.75
	Ethnic minority (Y/N)	-0.96	0.48	-.16	-2.02*
Symptoms	PTSD symptom severity	0.09	0.02	.39	3.80***
	Depression symptoms	-0.02	0.03	-.06	-0.55
Baseline social support	ISEL total	-0.04	0.03	-.14	-1.55
Incident characteristics	No. injuries	0.03	0.07	.03	0.40
	No. psychologically aggressive tactics	0.06	0.08	.06	0.72
	Sexual assault (Y/N)	-0.75	0.77	-.08	-0.97
	Outreach condition	0.10	0.43	.02	0.25
SRQ: Take control					
Participant characteristics	Age	-0.02	0.02	-.07	-0.91
	SES	-0.03	0.29	-.01	-0.10
	Ethnic minority (Y/N)	-0.31	0.52	-.05	-0.59

(continued)

**Table 3. (continued)**

Model Tested	Predictor Variable	B	SE (B)	$\beta$	t
Symptoms	PTSD symptom severity	0.07	0.03	.29	2.78**
	Depression symptoms	0.04	0.03	.13	1.14
Baseline social support	ISEL total	-0.01	0.03	-.03	-0.31
Incident characteristics	No. injuries	0.09	0.07	.10	1.22
	No. psychologically aggressive tactics	-0.07	0.09	-.07	-0.83
	Sexual assault (Y/N)	-0.57	0.85	-.05	-0.68
	Outreach condition	-0.13	0.47	-.02	-0.27
SRQ: Distraction					
Participant characteristics	Age	-0.03	0.02	-.11	-1.36
	SES	-0.18	0.31	-.05	-0.59
	Ethnic minority (Y/N)	0.02	0.55	.01	0.04
Symptoms	PTSD symptom severity	0.09	0.03	.34	3.34**
	Depression symptoms	0.04	0.04	.12	1.09
Baseline social support	ISEL total	-0.03	0.03	-.10	-1.09
Incident characteristics	No. injuries	-0.05	0.08	-.06	-0.69
	No. psychologically aggressive tactics	-0.04	0.09	-.03	-0.42
	Sexual assault (Y/N)	-0.82	0.89	-.07	-0.92
	Outreach condition	-0.09	0.49	-.02	-0.19
SRQ: Victim blame					
Participant characteristics	Age	-0.02	0.02	-.09	-1.10
	SES	0.01	0.27	.01	0.06
	Ethnic minority (Y/N)	-0.20	0.47	-.04	-0.43
Symptoms	PTSD symptom severity	0.06	0.02	.27	2.56*
	Depression symptoms	0.01	0.03	.02	0.18
Baseline social support	ISEL total	-0.04	0.03	-.17	-1.80
Incident characteristics	No. injuries	0.09	0.07	.12	1.43
	No. psychologically aggressive tactics	-0.05	0.08	-.06	-0.66
	Sexual assault (Y/N)	0.17	0.76	.02	0.23
	Outreach condition	-0.37	0.42	-.07	-0.89

Note. Ethnic minority status was coded as 1 = minority; -1 = nonminority. PTSD symptom severity measured with the PDS. Dissociation measured with the DES = Dissociative Experiences Scale. Depression measured with the BDI-II. Social support measured with the ISEL. Incident characteristics measured with the CTS. SRQ = Social Reactions Questionnaire; PTSD = posttraumatic stress disorder; ISEL = Interpersonal Support Evaluation List; CTS = Conflict Tactics Scale; PDS = Posttraumatic Stress Diagnostic Scale; BDI-II = Beck Depression Inventory II.

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

bi-directional relationships between negative social reactions and distress. Unfortunately, the current study is limited insofar as we did not have a measure of social reactions at the baseline assessment. Therefore, we cannot account for the influence of baseline social reactions on later social reactions nor can we test the contributions of initial social reactions at baseline to PTSD symptom severity a year later. Future longitudinal research focused on understanding social reactions should include measures of social reactions and distress at multiple time points. Furthermore, due to time constraints in the larger project from which these data were drawn, we did not use the full SRQ. While other research suggests that a reduced set of items taps social reactions in a valid and internally consistent way, the lack of validation of this short form should be weighed in interpreting results. Third, the current study found that baseline variables did not predict positive social reactions. This is consistent with previous literature that shows only modest or no links between positive social reactions and symptoms (see Ahrens & Campbell, 2000, for review; Ullman, 1996).

In sum, understanding social reactions received by victims of IPA is critically important. For example, to the extent that negative social reactions may leave women socially isolated or alienated, negative social reactions may be linked to women's increased risk of revictimization (that is, the occurrence of another sexual assault). Indeed, a lack of positive social support has been associated with risk of victimization (e.g., Kapadia, Saleem, & Karim, 2010; Levendosky et al., 2004); negative social reactions have also been associated with revictimization risk (Mason, Ullman, Long, Long, & Starzynski, 2009). The current study advances the study of social reactions in a sample of women exposed to IPA in the context of a longitudinal study.

### **Acknowledgments**

We thank our study partners, including the Denver District Attorney's Office, City Attorney's Office, Denver Police Department Victim Assistance Unit, Denver Domestic Violence Coordinating Council, Safe-House Denver, Project Safeguard, AMEND, and the Triage Steering Committee; and collaborators Joanne Belknap, Susan E. Buckingham, and Angela R. Gover. We also thank the Traumatic Stress Studies Group, particularly Melody Combs, Claire Hebenstreit, Ryan Matlow, Annarheen Pineda, and Jane Sundermann. Finally, a thank you to the women who trusted us with their stories over the year during which we were privileged to get to know them.

### **Authors' Note**

The opinions, findings, and conclusions or recommendations expressed in this report are those of the authors and do not necessarily reflect those of the Department of Justice or the National Institute of Justice.

## Declaration of Conflicting Interests

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

## Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This project was funded by National Institute of Justice Office of Justice Programs, United States Department of Justice Award 2007-WG-BX-0002 to Anne P. DePrince.

## References

- Ahrens, C. E., & Campbell, R. (2000). Assisting rape victims as they recover from rape: The impact on friends. *Journal of Interpersonal Violence, 15*, 959-986.
- Beck, A. T., Steer, R. A., Ball, R., & Ranieri, W. F. (1996). Comparison of Beck Depression Inventories-IA and -II in psychiatric outpatients. *Journal of Personality Assessment, 67*, 588-597.
- Borja, S., Callahan, J., & Long, P. (2006). Positive and negative adjustment and social support of sexual assault survivors. *Journal of Traumatic Stress, 19*, 905-914. doi:10.1002/jts.20169
- Campbell, J. C., Kub, J., Belknap, R. A., & Templin, T. N. (1997). Predictors of depression in battered women. *Violence Against Women, 3*, 271-293.
- Cohen, S., & Hoberman, H. M. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology, 13*, 99-125.
- Cohen, S., Mermelstein, R. J., Kamarck, T., & Hoberman, H. M. (1985). Measuring the functional components of social support. In I. G. Sarason & B. Sarason (Eds.), *Social support: Theory, research and applications* (pp. 73-94). The Hague, The Netherlands: Martines Nijhoff.
- DePrince, A. P., Belknap, J., Labus, J., Buckingham, S. E., & Gover, A. R. (2012). The impact of victim-focused outreach on criminal legal system outcomes following police-reported intimate partner abuse. *Violence against Women, 18*, 861-881. doi:10.1177/1077801212456523
- DePrince, A. P., Labus, J., Belknap, J., Buckingham, S., & Gover, A. (2012). The impact of community-based outreach on psychological distress and victim safety in women exposed to intimate partner abuse. *Journal of Consulting and Clinical Psychology, 80*, 211-221. doi: 10.1037/a0027224
- Elhai, J. D., Gray, M. J., Kashdan, T. B., & Franklin, C. L. (2005). Which instruments are most commonly used to assess traumatic event exposure and posttraumatic effects? A survey of traumatic stress professionals. *Journal of Traumatic Stress, 18*, 541-545. doi:10.1002/jts.20062
- Figley, C. R. (Ed.). (1995). *Compassion fatigue: Secondary traumatic stress disorders from treating the traumatized*. New York, NY: Brunner/Mazel.
- Foa, E. B., Cashman, L., Jaycox, L., & Perry, K. (1997). The validation of a self-report measure of posttraumatic stress disorder: The posttraumatic diagnostic scale. *Psychological Assessment, 9*, 445-451.



- Follingstad, D. R., & Rogers, M. (2012). Women experiencing psychological abuse: Are they a homogenous group? *Journal of Aggression, Maltreatment & Trauma, 21*, 891-916. doi:10.1080/10926771.2012.708012
- Herman, J. L. (1997). *Trauma and recovery: The aftermath of violence from domestic abuse to political terror*. New York, NY: Basic Books.
- Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York, NY: Free Press.
- Kapadia, M. Z., Saleem, S., & Karim, M. S. (2010). The hidden figure: Sexual intimate partner violence among Pakistani women. *European Journal of Public Health, 20*, 164-168. doi:10.1093/eurpub/ckp110
- Krause, E. D., Kaltman, S., Goodman, L. A., & Dutton, M. A. (2008). Avoidant coping and PTSD symptoms related to domestic violence: A longitudinal study. *Journal of Traumatic Stress, 21*, 83-90. doi: 10.1002/jts.2028
- 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.
- Littleton, H. L. (2010). The impact of social support and negative disclosure reactions on sexual assault victims: A cross-sectional and longitudinal investigation. *Journal of Trauma & Dissociation, 11*, 210-227. doi.org/10.1080/15299730903502946
- Littleton, H. L., Axsom, D., Breitkopf, C., & Berenson, A. (2006). Rape acknowledgment and postassault experiences: How acknowledgment status relates to disclosure, coping, worldview, and reactions received from others. *Violence and Victims, 21*, 761-778. doi:10.1891/vv-v21i6a006
- Littleton, H. L., & Breitkopf, C. (2006). Coping with the experience of rape. *Psychology of Women Quarterly, 30*, 106-116. doi:10.1111/j.1471-6402.2006.00267.x
- Littleton, H. L., Breitkopf, C., & Berenson, A. (2008). Beyond the campus: Unacknowledged rape among low-income women. *Violence Against Women, 14*, 269-286. doi:10.1177/1077801207313733
- Mason, G. E., Ullman, S., Long, S. E., Long, L., & Starzynski, L. (2009). Social support and risk of sexual assault revictimization. *Journal of Community Psychology, 37*, 58-72. doi:10.1002/jcop.20270
- Norris, F. H., Kaniasty, K. Z., & Scheer, D. A. (1990). Use of mental health services among victims of crime: Frequency, correlates, and subsequent recovery. *Journal of Consulting and Clinical Psychology, 58*, 38-547.
- Scher, C., McCreary, D., Asmundson, G., & Resick, P. (2008). The structure of post-traumatic stress disorder symptoms in three female trauma samples: A comparison of interview and self-report measures. *Journal of Anxiety Disorders, 22*, 1137-1145.
- Shay, J. (1995). *Achilles in Vietnam: Combat trauma and the undoing of character*. New York, NY: Simon & Schuster.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised Conflict Tactics Scale (CTS2). *Journal of Family Issues, 17*, 283-316.
- Sullivan, T., Cavanaugh, C., Buckner, J., & Edmondson, D. (2009). Testing posttraumatic stress as a mediator of physical, sexual and psychological intimate partner

- violence and substance problems among women. *Journal of Traumatic Stress*, 22, 575-584. doi:10.1002/jts.20474
- Turpin, G., Downs, M., & Mason, S. (2005). Effectiveness of providing self-help information following acute traumatic injury: Randomized controlled trial. *British Journal of Psychiatry*, 187, 76-82. doi:10.1192/bjp.187.1.76
- Ullman, S. E. (1996). Social reactions, coping strategies, and self-blame attributions in adjustment to sexual assault. *Psychology of Women Quarterly*, 20, 505-526.
- Ullman, S. E. (2000). Psychometric characteristics of the Social Reactions Questionnaire: A measure of reactions to sexual assault victims. *Psychology of Women Quarterly*, 24, 257-271.
- Ullman, S. E., & Filipas, H. H. (2001a). Correlates of formal and informal support seeking in sexual assault victims. *Journal of Interpersonal Violence*, 16, 1028-1047.
- Ullman, S. E., & Filipas, H. H. (2001b). Predictors of PTSD symptom severity and social reactions in sexual assault victims. *Journal of Traumatic Stress*, 14, 369-389.
- Ullman, S. E., Townsend, S. M., Filipas, H. H., & Starzynski, L. L. (2007). Structural models of the relations of assault severity, social support, avoidance coping, self-blame, and PTSD among sexual assault survivors. *Psychology of Women Quarterly*, 31, 23-37. doi:10.1111/j.1471-6402.2007.00328.x

### Author Biographies

**Anne P. DePrince** is an associate professor in the Psychology Department at the University of Denver where she contributes to the Child Clinical, Cognitive, and Developmental Cognitive Neuroscience Programs. Her research focuses on the consequences of trauma and violence in both youth and adults. She teaches courses on violence against women, research methods, and clinical interventions. She also serves as the director of the Center for Community Engagement and Service Learning at the University of Denver.

**Courtney Welton-Mitchell** is an assistant professor in the Graduate School of Professional Psychology at the University of Denver where she works primarily with the International Disaster Psychology MA program. She teaches courses on disaster psychology, crisis intervention, gender-based violence, and cognitive psychology. She also works as a consultant for United Nations and other humanitarian agencies, conducts psychological evaluations for asylum seekers through HealthRight International, and is engaged in trauma-related domestic and international research.

**Tejaswinhi Srinivas** is a graduate research assistant in the Psychology Department at the University of Denver where she is a student in the Child Clinical and Developmental Cognitive Neuroscience Programs. Her research interests focus on the consequences of interpersonal and political forms of trauma.