



Women's Experiences of Social Reactions From Informal and Formal Supports: Using a Modified Administration of the Social Reactions Questionnaire

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Abstract

A growing literature links social reactions to disclosures of intimate violence to posttraumatic outcomes. The Social Reactions Questionnaire (SRQ), a widely used measure developed to assess social reactions, asks about reactions received from people generally. The ability to examine the impact of social reactions from specific groups of people—such as criminal justice personnel versus community-based providers—has become increasingly more important from both research and practice perspectives. For example, as sexual assault responses nationally have relied on community-coordinated models that involve both criminal justice and community-based systems, tools are lacking to systematically assess the impact of social reactions from criminal justice personnel and community-based providers on survivors. Using the SRQ, the current study asked women to report *separately* on reactions received from criminal justice personnel, community-based providers, and informal supports. We recruited a diverse community sample

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of women ($N = 228$, ages 18-63, 19% lesbian/bisexual, 44% ethnic minority) who experienced a sexual assault in the previous year and disclosed to the criminal justice system and/or a community-based provider. Multilevel analyses revealed considerable variability in the social reactions reported by women across criminal justice personnel, community-based providers, and informal supports. Analyses supported a seven-factor structure for the SRQ when the measure is yoked to particular experiences of disclosure, in this case to criminal justice personnel, community-based providers, or informal supports. The utility of this modified administration and scoring of the SRQ and the importance of considering reactions across different groups are described.

Keywords

sexual assault, disclosure, social reactions, Social Reactions Questionnaire

Sexual assault affects more than one million women annually in the United States (Black et al., 2011). In the aftermath of sexual assault, women may disclose the sexual assault to informal (e.g., friends, romantic partners, acquaintances, family) and/or formal supports (e.g., law enforcement, counselors, clergy, health providers; Starzynski, Ullman, Filipas, & Townsend, 2005). Women have described receiving a range of social reactions when they disclose sexual assault, ranging from negative to positive reactions (Borja, Callahan, & Long, 2006; Ullman, 2000; Ullman, Townsend, Filipas, & Starzynski, 2007). Negative social reactions to women's disclosures of intimate violence (including both physical and sexual violence) have been associated with poorer psychological outcomes (e.g., Borja et al., 2006; Levendosky et al., 2004; Ullman, 1996; Ullman et al., 2007), pointing to the importance of examining social reactions as a factor in understanding postassault outcomes (Starzynski et al., 2005; Ullman, 2010).

One of the most important methodological advancements in the study of social reactions to sexual assault was the development of the Social Reactions Questionnaire (SRQ; Ullman, 2000). The SRQ was developed from an initial 40-item checklist of positive and negative social reactions that was pilot-tested with female sexual assault survivors (Ullman, 1996). Initial psychometric study of a 48-item version of the SRQ resulted in identifying 46 items that loaded onto seven scales; these scales reflected negative (e.g., treat differently; distraction; take control; victim blame; egocentric) and positive (e.g., emotional support/belief; tangible aid/information support) reactions (Ullman, 2000). Later studies have used alternate scoring approaches that

calculate one positive scale and one negative scale (e.g., Ullman & Filipas, 2001), as well as two negative scales (turning against, unsupportive acknowledgment; Relyea & Ullman, 2015). Across studies, bivariate correlations among the scales have demonstrated that positive and negative scales are not simply the inverse of one another; rather, women experience separate positive and negative reactions to sexual assault disclosure (e.g., DePrince & Mitchell, 2010; Ullman, 2000). Furthermore, studies have shown that some reactions labeled negative appear to be of mixed valence, experienced as both hurtful and helpful to some survivors (e.g., egocentric, distraction; Ahrens, 2006; Ahrens, Cabral, & Abeling, 2009; Campbell, Ahrens, Seftl, Wasco, & Barnes, 2001; Relyea & Ullman, 2015). These data point to the complexity of survivors' experiences following disclosure.

Studies using the SRQ have generally asked women to report on social reactions from "other persons told about the assault" (e.g., Ullman, Starzynski, Long, Mason, & Long, 2008, p. 1242), without specifying which persons. Using this approach, researchers have documented links between women's reports of social reactions following sexual assault (and other forms of violence, such as domestic violence; DePrince, Welton-Mitchell, & Srinivas, 2014) and trauma-related distress. For example, negative social reactions are linked to self-blame, problem drinking, and posttraumatic stress disorder (PTSD) symptoms (e.g., Ullman, Filipas, Townsend, & Starzynski, 2006; Ullman & Najdowski, 2010; Ullman et al., 2007). A handful of studies, though, point to the potential importance of assessing social reactions from *different* groups. For example, Starzynski and colleagues (2005) discovered that women who disclosed to both formal and informal supports reported more negative social reactions overall (that is, not yoked to reactions from informal versus formal supports) than women who disclosed to informal supports only, even when controlling for characteristics of the assault. Borja and colleagues (2006) modified SRQ instructions to ask sexual assault victims to report on reactions from informal and formal supports, looking at overall positive and negative social reactions from these groups. They discovered that positive social reactions from informal and formal supports were linked with posttraumatic growth, while negative reactions from informal supports were linked with trauma-related distress. Based on narratives from eight rape victims, Ahrens (2006) reported that negative reactions from formal supports were linked to women's concerns about whether future disclosures would be effective (which could affect criminal justice involvement, for example), while negative reactions from informal supports reinforced victims' self-blame.

In addition to experiencing different reactions from different groups, studies have shown that survivors may be interpreting reactions differently

depending on the identity of the support person (e.g., Ahrens et al., 2009; Campbell et al., 2001; Filipas & Ullman, 2001). Filipas and Ullman (2001) noted that survivors' perceptions of intent behind the reaction and/or expectations of what support is appropriate from specific sources of support (i.e., from friends and family versus counselors) may matter as much, or even more than what was actually said or done. These studies, though, have all used different methods in terms of whether social reaction items were anchored to specific informal or formal support groups, and how the SRQ was scored.

Beyond addressing the methodological variability in the existing literature, there are both practice and research reasons to want to understand more about the social reactions women receive from informal as well as formal supports. From a practice perspective, delineating reactions from criminal justice personnel and community-based providers is especially important. Sexual assault responses nationally have continued to shift toward community-coordinated responses that are characterized by bringing together representatives from the criminal justice and community-based systems (e.g., Sexual Assault Response Teams [SARTs]; see Greeson & Campbell, 2013). Multidisciplinary teams comprised of criminal justice and community-based professionals must navigate their different organizational structures, roles, and obligations. Unfortunately, the literature on community-coordinated responses to sexual assault has remained in its infancy, focusing primarily on the perceptions of members of those teams regarding how they believe they work with victims (for a review, see Greeson & Campbell, 2013). To address this practice gap, tools are needed to systematically assess *women's* perceptions of responses from criminal justice personnel and community-based providers, particularly in light of long-held concerns that criminal justice personnel react to women's disclosures of sexual assault in ways that may be harmful (Campbell, Dworkin, & Cabral, 2009; Lievore, 2005). With tools to measure women's perceptions of social reactions from particular groups (criminal justice personnel, community-based providers), practitioners would be in a position to advance the development and best practices of community-coordinated responses to sexual assault.

From a research perspective, we know that social reactions generally are linked with women's outcomes; and a handful of studies have recently shown that social reactions may vary across different social groups, such that survivors may experience different social reactions across informal supports (e.g., friends, family) and formal supports (e.g., criminal justice personnel, community-based providers). Unfortunately, little is known about how the structure of the SRQ scales may vary across social groups. Greater understanding of the variability in specific reactions across informal and formal

supports could help researchers make more informed methodological decisions about how to administer and score the SRQ. This is especially true when research questions directly address reactions from various groups, or the relative impact of reactions from different groups. For example, particular items on the SRQ may have greater relevance for informal versus formal supports (and vice versa); considerable variability in experiences across informal versus formal supports would suggest the need to anchor responses to specific groups rather than rating all reactions together. Furthermore, considerable variability may also indicate the need to supplement the SRQ with other measures that can provide more in-depth assessment of reactions, such as semi-structured, open-ended interview schedules that can elicit rich qualitative information, for example, accompanying the SRQ item with a healing/hurtful scale as used in other studies (e.g., Ahrens et al., 2009).

The current study modified the administration of the SRQ to anchor responses to three groups: (a) criminal justice personnel (e.g., law enforcement, system-based advocates, prosecution), (b) community-based victim service providers (e.g., rape crisis personnel, medical personnel, sexual assault nurse examiners (SANEs), counselors, community-based advocates), and (c) informal supports (e.g., friends, family, romantic partners, employers, acquaintances). By asking women to whom they disclosed and then anchoring SRQ items to those specific groups (criminal justice personnel, community-based providers, informal supports), we sought to evaluate the structure of the SRQ as well as the potential usefulness of the SRQ as a tool to assess the social reactions of specific groups of people to sexual assault disclosures. Drawing on Hox, Moerbeek, and van de Schoot (2010), we examined the factor structure of SRQ, while differentiating within-individual variability in responses (i.e., variability that is due to differences in experiences individuals reported across different informal and formal supports) and between-person variability (i.e., variability in each participants' average experiences that are due to individual differences across participants).

Method

Participants

Women participants ($N = 228$) ranged in age from 18 to 62, with an average age of 34.9 years ($SD = 11.8$). Forty-four percent of women identified with one or more ethnic minority group. Specifically, women reported their racial/ethnic backgrounds to be 68% White or Caucasian, 20% Black or African American, 17% Hispanic or Latina, 3% Asian, 2% Pacific Islander, 9% Native American or Alaskan Native, and 5% Other. (The total

percentage is greater than 100%, because women could endorse more than one racial/ethnic identity.) Women reported the following in terms of highest level of education: 9% some high school; 14% high school graduate; 37% some college; 7% associate's degree; 18% 4-year college degree; 6% postgraduate education; and 10% other (e.g., trade school). Approximately one fifth (19%) of women identify as bisexual or lesbian. Women were also diverse in terms of economic resources, including women who identified as being unemployed (44%) and women who were college students (21%) and/or professionals (44%).

Materials

In addition to collecting information on women's demographics, the revised version of the Sexual Experiences Survey (SES)–Short Form Victimization (SFV) was used to assess behavioral characteristics of the sexual assault that occurred in the previous year (or the most recent assault, if more than one occurred; Koss et al., 2007). The SES-SFV is a widely used measure of sexual assault events, although research on the psychometric properties for the revised measure is limited (see Koss et al., 2007, for further information about the revised version of the SES-SFV). Using the SES-SFV, we coded whether the sexual assault was alcohol/drug-facilitated; and whether physical force was used. We added follow-up probes to each question to ask participants to report on their relationship to the offender. Victim-offender relationship was coded from 0 to 2 per Goldberg and Freyd (2006), such that 0 indicates *not close* (e.g., stranger), 1 indicates *some degree of association* (e.g., acquaintance, casual dating partner), and 2 indicates *close association* (e.g., partner).

Women were provided a list of types of people (e.g., family, friend, counselor, medical personnel, police, lawyer) and asked to whom they had disclosed the sexual assault ("target incident"). The types of people endorsed were collapsed into three categories of responders: informal supports (i.e., family, friend, co-worker/employer, acquaintance), community-based services (i.e., SANE, medical personnel, counselor, rape crisis personnel, community-based advocate), and criminal justice personnel (i.e., police, lawyer, system-based advocate, lawyer). The 48-item SRQ described by Ullman (2000) was then administered to assess social reactions (though as detailed in the introduction, only 46 items were used in the original scoring). This behaviorally defined self-report questionnaire measures negative reactions (e.g., victim blame, treated differently) and positive reactions (e.g., emotional support, tangible aid) to victims' disclosure. Good reliability and validity have been reported with sexual assault survivors (see Ullman, 2000 for specific

psychometric development details). The SRQ was administered up to 3 times, with each administration yoked to the reactions women received from responders who were, respectively, informal supports, criminal justice personnel, and community-based victim service providers, depending on the people to whom they had reported disclosing. The response scale ranged from 0 (*never*) to 4 (*always*).

Procedure

Study materials and protocols were reviewed and approved by a university institutional review board prior to data collection. Study flyers advertising the “Women’s Health Project,” a study of unwanted sexual experiences, were widely circulated physically and electronically in the metro area of a larger western city. Community and system-based agencies that serve crime victims (e.g., campus sexual assault support/prevention offices, community sexual assault/prevention agencies, police department, SANE programs) made flyers available to clients. Women also heard about the study by word of mouth from other participants. Recruitment occurred over a 3-year period. Potential participants phoned the research team, at which point inclusion criteria were assessed. Inclusion criteria required that participants identify as women (trans women were eligible), were age 18 or older, and had experienced an unwanted sexual experience in the previous year that was disclosed to a formal support person (e.g., counselor, advocate, police officer, health provider). Women who met the inclusion criteria were invited to a 3-hr interview. They were offered either US\$10 to offset transportation costs, or a cab fare to attend the interview. Child care was provided if needed.

Upon arriving at university research offices, women were greeted by a female, graduate-level interviewer. Consent information was presented in writing and orally. Understanding of consent information was assessed with a “consent quiz” (DePrince & Chu, 2008). Only women who passed the quiz were considered consented into the study and enrolled. Following consent procedures, women were asked to complete a battery of measures, including the SES and SRQ. The SES was administered first. The most recent unwanted sexual experience was selected as the “target” experience, if women reported more than one sexual assault in the previous year. Women were asked to think about the target experience when responding to the SRQ items. Prior to administering the SRQ, women were asked to whom they disclosed the unwanted sexual experience. The SRQ was administered up to 3 times, depending on whether women had disclosed to informal supports, criminal justice personnel, and/or community-based providers. At the start of each administration, women were instructed as follows:

Please think about the [informal support (e.g., family, friend, acquaintance), community-based providers (e.g., counselor, medical personnel), criminal justice personnel (e.g., police, system-based advocate)] who you talked about the unwanted sexual experience with, when answering the following questions, thinking about your *overall* experience with this person/these people. Please indicate how often you have experienced each of these things by telling me if it happened never, rarely, sometimes, frequently, or always.

Women who disclosed to more than one person in a category were instructed to respond based on their overall experience with the people in that category. For example, if women disclosed to a detective and prosecutor, they responded based on their overall experience with these individuals. Most women were asked about informal, community-based, and criminal justice reactions in turn, depending on to whom they had disclosed; to minimize any potential order effects, the order of SRQ was randomized for 42% of women. Following study procedures, women were paid US\$50 for their time.

Results

Characterizing Sexual Assault Experiences and Disclosure in the Sample

For the target incident, 79% of women reported experiencing rape, 28% reported experiencing attempted rape, 40% reported experiencing sexual coercion, 13% reported experiencing attempted sexual coercion, and 67% reported experiencing sexual contact (of note, women could report experiencing more than one type of sexual victimization). More than a quarter (26%) of women reported that the offender was someone very close (such as an intimate partner). When asked about lifetime experiences of sexual victimization, 71% of women reported at least one incident of rape.

A majority of women (93%) had disclosed the sexual assault to someone in a community-based organization. Within community-based organizations, 54% disclosed to medical personnel other than a SANE, 35% to a SANE, 25% to rape crisis personnel, 65% to counselors, and 40% to community-based victim advocates. Over half (60%) of women disclosed the sexual assault to someone in the criminal justice system. Specifically, 58% reported to the police, 28% to system-based victim advocates, and 12% to lawyers. A majority of women (88%) disclosed the sexual assault to informal supports. Within the category of informal supports, 66% disclosed to family, 74% to friends, 18% to acquaintances, and 24% to coworkers/employers.

SRQ Responses

Preliminary analyses examined intraclass correlation coefficients (ICCs) for the scale items. As can be seen in Table 1, the ICCs ranged from .13 to .45 (i.e., between-individuals item variance corresponding to 13%–45% of total variance)—all greater than .10 (Muthén, 1997), thus indicating that between-individual differences (i.e., variability across individuals in their average experiences) substantially contribute to SRQ scale scores. Interestingly, a fairly large proportion of variance (55%–87%) remained at the within-person level (i.e., experiences individuals reported across different groups). Although this within-person estimate conflates within-person variability with error variance, these large estimates suggest a substantial variability in individuals' experiences of reactions from the different groups. Taken together, the ICCs show strong support for the multilevel structure of the data and the need for factor analysis that takes this multilevel structure into account.

Analyses of the Within- and Between-Individual Variability

As the first step in investigating the multilevel factor structure of the SRQ, we conducted two separate sets of analyses: one set for the within-individual variance and the other for the between-individual variance (Hox et al., 2010).

Based on the original seven-factor scoring described by Ullman (2000) as well as alternative scoring approaches used in the literature (e.g., positive and negative scales, Ullman & Filipas, 2001; turning against and unsupportive acknowledgment scales, Relyea & Ullman, 2015), we tested two-factor, three-factor, and seven-factor models for the within-individual variability in scores (i.e., the variability in experiences individuals reported across different groups). As can be seen in Table 2, the seven-factor model had a significantly better fit than the two-factor or the three-factor models: $\Delta\chi^2(2) = 536$, $p < .001$, for the three-factor model compared with the two-factor model, and $\Delta\chi^2(18) = 1,271$, $p < .001$, for the seven-factor model compared with the three-factor model. Inspection of the modification indices suggested that several items loaded on two factors. Specifically, four emotional support items (Items 6, 7, 14, and 15) also loaded on the egocentric factor and one item (Item 5) loaded on both the distraction and the egocentric factors. The modified seven-factor model had a significantly better fit than all other models— $\Delta\chi^2(6) = 445$, $p < .001$, for the comparison of the modified seven-factor model with the original seven-factor model.

Analyses of the between-individual variability (i.e., variability across individuals in their average experiences) similarly compared the two-, three-, and seven-factor models. Although the seven-factor model had the best fit

Table 1. Estimated ICCs.

Item	ICC
1. Told you it was not your fault	.24
2. Pulled away from you	.27
3. Wanted to seek revenge on the perpetrator	.17
4. Told others without your permission	.29
5. Distracted you with other things	.21
6. Comforted by telling it would be alright or holding you	.22
7. Told you he or she felt sorry for you	.34
8. Helped you get medical care	.35
9. Told you that you were not to blame	.27
10. Treated differently/made uncomfortable	.31
11. Tried to take control of what you did/decisions you made	.23
12. Focused on his or her own needs and neglected yours	.19
13. Told you to go on with your life	.43
14. Held you or told you that you were loved	.24
15. Reassured you that you are a good person	.24
16. Encouraged you to seek counseling	.23
17. Told you that you were to blame/shameful	.24
18. Avoided talking/spending time with you	.23
19. Made decisions or did things for you	.29
20. Said he or she feels personally wronged	.32
21. Told you to stop thinking about it	.26
22. Listened to your feelings	.19
23. Saw your side/did not make judgments	.27
24. Helped get information about coping	.19
25. Told you could have done more to prevent	.26
26. Acted as if you were damaged goods	.30
27. Treated you as a child/incompetent	.27
28. Expressed much anger/you had to calm him/her down	.15
29. Told you to stop talking about it	.19
30. Showed understanding	.25
31. Reframed as a clear case of victimization	.45
32. Took you to the police	.31
33. Told you were irresponsible/not cautious	.27
34. Minimized the importance/seriousness	.25
35. Said he or she knew how it felt when he or she really did not	.37
36. So upset that needed reassurance	.13
37. Tried to discourage you from talking	.28
39. Able to really accept your account	.29

(continued)

Table 1. (continued)

Item	ICC
40. Spent time with you	.22
41. Told you did not do anything wrong	.19
43. Made you feel you did not know how to take care of yourself	.28
44. Said he or she feels you're tainted	.44
45. Encouraged you to keep it secret	.22
46. Seemed to understand feelings	.29
47. Believed your account of what happened	.37
48. Provided information and options	.17

Note. ICC = intraclass correlations coefficient.

Table 2. Confirmatory and Exploratory Factor Analyses for the Within-Individual (Level 1) Variability.

Confirmatory Factor Models Tested	χ^2	df	$\Delta\chi^2$	RMSEA	CFI	SRMR
Two-factor	5,140	988		.088	.710	.111
Three-factor	4,604	986	536	.082	.747	.098
Seven-factor	3,333	968	1,271	.067	.835	.085
Seven-factor with cross-factor loadings	2,888	962	445	.061	.865	.060

Note. RMSEA = root mean square error approximation; CFI = comparative fit index; SRMR = standardized root mean residual.

relative to the other two models (Table 3), the fit indices for all three models were poor. Follow-up exploratory factor analyses did not result in improvement of the model fit. Thus, we retained the most parsimonious (simplest) two-factor model for further analyses of the between-individual variance.

The Multilevel Confirmatory Factor Model

Using the resulting within- and between-individual factor structure, we conducted a multilevel confirmatory factor analysis (CFA). This multilevel CFA model examined variability across women at Level 2 and variability across responder type (community-based providers, criminal justice personnel, informal support) at Level 1. Thus, the model examined factors that emerged due to differences across participating women (Level 2) and factors that emerged due to differences across different responder types. In other words, if Victim Blaming emerged as a Level 1 factor, it would be due to some responders scoring high on all/many victim-blaming items and others scoring low on all/many

Table 3. Confirmatory and Exploratory Factor Analyses for the Between-Individual (Level 2) Variability.

	χ^2	<i>df</i>	$\Delta\chi^2$	RMSEA	CFI	SRMR
Confirmatory factor models						
Two-factor model	22,898	988		.315	.210	.181
Three-factor model	22,770	986	128	.314	.215	.180
Seven-factor model	22,004	968	766	.311	.242	.159
Exploratory factor models						
Two-factor model	24,306	1,033		.317	.232	.087
Three-factor model	23,501	987	805	.319	.257	.076
Four-factor model	22,919	942	582	.323	.275	.070
Five-factor model	22,340	898	579	.326	.292	.063

Note. RMSEA = root mean square error approximation; CFI = comparative fit index; SRMR = standardized root mean residual.

victim-blaming items. In contrast, if Victim Blaming emerged as a Level 2 factor, it would suggest that some women tended to experience high scores on all/many victim-blaming items, whereas other women experiencing low scores on all/many victim-blaming items. The resulting model had a modest but adequate fit to the data— $\chi^2(2070) = 16,788, p < .001$; comparative fit index (CFI) = .815; RMSEA = .05. Table 4 presents item loadings for the multilevel model. All loadings were significant at $p < .001$. Items 6, 7, 14, and 15 loaded on both the emotional support and egocentric within-person factors, and Item 5 loaded onto distraction and egocentric between-person factors.

Finally, responder type was added to the multilevel CFA model, and it was dummy coded. One model used family/friends as a reference group, establishing differences between criminal justice providers versus family/friends and community service providers versus family/friend. Another model used criminal justice providers as a reference group, providing additional information on the differences between criminal justice and community service providers. As can be seen in Table 5, criminal justice personnel had the lowest scores for the emotional support factor and intermediary scores on the tangible/information aid, treated differently, took control, and victim-blaming factors. Criminal justice personnel and community-based providers both had lower scores than informal supports on the distraction and egocentric factors. In contrast, informal supports were lowest on the tangible aid/information factor, and the highest on the treated differently, distraction, took control, victim blaming, and egocentric factors. Finally, community service providers were highest on the emotional support, and tangible aid/information factors, and the lowest on took control and victim blaming factors.

Table 4. Item Loadings for the Final Two-Level Model.

	λ									
	Level 1						Level 2			
	ES	TI	TD	D	TC	VB	E	Positive	Negative	
1. Told you it was not your fault	1.00							1.00		
2. Pulled away from you			1.00						1.00	
3. Wanted to seek revenge on the perpetrator							1.00	0.37		
4. Told others without your permission					1.00				.83	
5. Distracted you with other things.				1.00			0.52	(.02)	1.83	
6. Comforted by telling it would be alright or holding you	0.90						0.49	0.73		
7. Told you he or she felt sorry for you	(.07)						(.07)	(.02)		
8. Helped you get medical care	0.40						0.60	0.55		
9. Told you that you were not to blame	(.06)						(.07)	(.03)		
10. Treated differently/made uncomfortable		1.00						0.62		
11. Tried to take control of what you did/decisions you made								(.04)		
12. Focused on his or her own needs and neglected yours	1.05							1.01		
13. Told you to go on with your life.	(.05)							(.02)		
14. Held you or told you that you were loved			1.08						1.28	
15. Reassured you that you are a good person			(.06)						(.07)	
16. Encouraged you to seek counseling									1.16	
17. Told you that you were to blame/shameful						1.06			(.11)	
18. Avoided talking/spending time with you						(.14)			(.08)	
19. Made decisions or did things for you			1.05						1.24	
20. Said he or she feels personally wronged			(.07)						(.08)	
21. Told you to stop thinking about it				2.15					2.18	
22. Listened to your feelings				(.61)					(.22)	
	0.76						0.94	0.54		
	(.08)						(.10)	(.03)		
	1.06						0.39	0.95		
	(.06)						(.07)	(.02)		
		1.17						0.95		
		(.11)						(.03)		
						1.00			0.66	
									(.06)	
			0.95						1.00	
			(.05)						(.05)	
					0.50				1.34	
					(.10)				(.14)	
							0.59	0.24		
							(.06)	(.02)		
				3.05					1.28	
				(.83)					(.10)	
	0.99							1.01		
	(.07)							(.002)		

(continued)

Table 4. (continued)

	λ								
	Level 1							Level 2	
	ES	TI	TD	D	TC	VB	E	Positive	Negative
23. Saw your side/did not make judgments	0.97 (.07)							0.96 (.03)	
24. Helped get information about coping		1.72 (.15)						0.82 (.02)	
25. Told you could have done more to prevent						1.39 (.11)			1.28 (.12)
26. Acted as if you were damaged goods			0.92 (.06)						0.96 (.07)
27. Treated you as a child/incompetent					1.49 (.15)				1.24 (.09)
28. Expressed much anger/you had to calm him/her down							1.04 (.05)	.27 (.02)	
29. Told you to stop talking about it				2.93 (.86)					.75 (.07)
30. Showed understanding	1.03 (.06)							0.98 (.02)	
31. Reframed as a clear case of victimization	0.68 (.07)							0.85 (.03)	
32. Took you to the police		0.40 (.08)						0.28 (.03)	
33. Told you were irresponsible/not cautious						1.39 (.10)			1.05 (.09)
34. Minimized the importance/seriousness					1.38 (.15)				1.49 (.11)
35. Said he or she knew how it felt when he or she really did not					0.78 (.12)				1.43 (.13)
36. So upset that needed reassurance							0.84 (.07)		0.90 (.09)
37. Tried to discourage you from talking				3.05 (.89)					0.88 (.06)
38. Shared his or her own experience with you		not included in the analyses							
39. Able to really accept your account	0.87 (.06)							1.04 (.02)	
40. Spent time with you	1.03 (.05)						0.35 (.06)	0.83 (.02)	
41. Told you did not do anything wrong	1.03 (.05)							0.97 (.02)	
42. Made a joke or sarcastic comment	not included in the analyses								
43. Made you feel you did not know how to take care of yourself					1.36 (.15)				1.37 (.11)

(continued)

Table 4. (continued)

		λ								
		Level 1						Level 2		
		ES	TI	TD	D	TC	VB	E	Positive	Negative
44.	Said he or she feels you're tainted			0.38 (.07)						0.79 (.10)
45.	Encouraged you to keep it secret				2.17 (.65)					0.61 (.06)
46.	Seemed to understand feelings	0.96 (.06)							0.85 (.02)	
47.	Believed your account of what happened	0.70 (.06)							1.08 (.03)	
48.	Provided information and options		1.53 (.15)						0.89 (.02)	

Note. All item loadings were significant at $p < .001$. ES = emotional support; TI = tangible aid/information; TD = treat differently; D = distraction; TC = take control; VB = victim blaming; E = egocentric.

Discussion

Women were asked about the social reactions they received from three groups of people when disclosing sexual assault—criminal justice personnel, community-based providers, and informal supports. A multilevel analytic approach examining within-individual and between-individual variance revealed several important points. First, the majority of variance was accounted for by within-individual variability, which taps the variability in experiences individuals reported *across the different groups*, relative to between-individual variability, which taps variability in experiences individuals reported *in general* across all groups. In conjunction with previous literature that found differences in disclosure reactions across social groups (e.g., Ahrens et al., 2009; Campbell et al., 2001; Filipas & Ullman, 2001), this finding points to the importance of asking women about responses they receive from specific groups of people, rather than asking about social reactions generally.

The findings also inform decisions about scoring the SRQ, which has been scored in a variety of ways in the literature, ranging from two- to seven-scale approaches. When asking participants to report on social reactions received related to particular disclosures (e.g., disclosures to community-based providers), a seven-factor scoring is a better choice than two- or three-factor approaches. Between-individual variability was generally less meaningful, suggesting that when participants are asked generally about the responses they have received, data can be organized into broad positive versus negative characterizations. It should be noted, however, that the fit indices for all three

Table 5. Unstandardized Regression Coefficients for a Multilevel Model With Different Types of Supports (Informal, Criminal Justice, Community-Based) as Covariates.

Level 1 Covariates	Level 1 Factors							
	ES	TI	TD	D	TC	VB	E	
	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)
CJ vs. I	-0.22* (.11)	0.52*** (.09)	-0.52*** (.10)	-0.28* (.09)	-0.34*** (.08)	-0.49*** (.08)	-1.55*** (.10)	
CB vs. I	0.62*** (.09)	0.95*** (.09)	-0.85*** (.09)	-0.31* (.10)	-0.63*** (.09)	-0.69*** (.07)	-1.47*** (.10)	
CB vs. CJ ^a	1.03*** (.14)	0.56*** (.10)	-0.33* (.11)	-0.06 (.03)	-0.30*** (.09)	-0.23** (.09)	-0.07 (.08)	
Summary of the pairwise differences ($p < .05$)	CJ < I < CB	I < CJ < CB	CB < CJ < I	CB, CJ < I	CB < CJ < I	CB < CJ < I	CB, CJ < I	
Level 2 Covariates	Level 2 Factors							
	Positive	Negative						
Age	.07*** (.003)	.03*** (.003)						

Note. ES = emotional support; TI = tangible aid/information; TD = treat differently; D = distraction; TC = take control; VB = victim blaming; E = egocentric; CJ = criminal justice; I = informal; CB = community-based.

^aEstimated in a separate model, with CB vs. CJ and CB vs. I dummy coded covariates.

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

models (two-, three-, and seven-factor) for the between-individual variability were poor. These findings suggest that women experience a diverse range of responses from individuals in different contexts. Thus, their experiences as a whole do not have a lot of systematic features. In contrast, context-specific experiences can be described with specific attributes, such as those high on emotional support, tangible aid, or victim blaming. In other words, when a particular responder provided one type of emotional support, they were more likely to also provide other forms of emotional support. In contrast, if a woman (across contexts) was eliciting one type of social support, it did not necessarily co-occur with eliciting other types of social support.

Focusing on the seven-factor solution revealed interesting patterns in terms of the social reactions women received from informal supports, criminal justice personnel, and community-based providers. Across all negative reactions (i.e., treated differently, taking control, distraction, victim blaming, and egocentric responses), scores for informal supports were consistently higher (that is, more negative) than for criminal justice personnel and community-based providers. Women also reported that informal supports provided less tangible aid/information than criminal justice personnel and community-based providers. These data point to the importance of public education and other programs that target nonprofessionals in responding to sexual assault disclosures (see also Starzynski et al., 2005). For example, campaigns such as “Start by Believing” (see Archambault & Lonsway, 2017) emphasize the importance of responding to sexual assault disclosures as one would to other crimes—without blaming the victim and with a stance that communicates the belief that sexual assault is a reality in our communities. Such campaigns have the potential to play an important role in educating informal supports and the lay public about how to respond to sexual assault disclosures.

The structure of the seven scales as originally described by Ullman (2000) was remarkably consistent, with one divergence. Several items loaded onto more than one scale. In particular, what was considered a negative Egocentric response in the original scale development included items that seem to reflect greater personal involvement on the part of the person reacting to the disclosure. For example, the item “Held you or told you that you were loved” loaded onto both the Emotional Support/Tangible Aid scale and the Egocentric Support scale. Such an item does not have the negative connotation that other items on the original scale appear to have (e.g., “Wanted to seek revenge on the perpetrator”), though together this range of items seem to reflect greater personal involvement in the response to the disclosure and the assault in terms of expressing to the victim strong reactions. This finding is consistent with other studies that have examined survivors’ perceptions of social reactions they had

experienced following disclosure (e.g., Ahrens et al., 2009; Campbell et al., 2001). Ahrens and colleagues (2009), for example, found that survivors described certain egocentric reactions from informal supports (e.g., partners, friends, family) to be more healing rather than hurtful, especially when the reactions helped validate the survivors' experience.

Although these data do not suggest any alterations to scale items, the findings do have implications for administering the SRQ. We found differences in how women rated the reactions of informal supports, community-based providers, and criminal justice personnel. Given that the seven-factor structure did not emerge at Level 2, we do not think that stable characteristics of women, their assault experiences, and postassault behavior were responsible for differences across these different responders, though it is possible that women's behavior changed over time and/or context, resulting in differences in responses. Nonetheless, this pattern of findings suggests that researchers should consider yoking the instructions to reactions received from specific groups of people—in our case, we focused on informal supports, community-based providers, and criminal justice personnel.

This study was explicitly concerned with women who disclosed to criminal justice personnel and/or community-based providers, and successfully engaged a diverse group of women who had experienced a sexual assault in the past year. Although this sample was essential to addressing the specific research questions we had about disclosure to formal supports, it is important to recall that many women do not disclose to formal supports (Bryant-Davis, Chung, & Tillman, 2009; Fisher, Daigle, Cullen, & Turner, 2003; Starzynski, Ullman, Townsend, Long, & Long, 2007). Furthermore, anchoring responses to informal supports, criminal justice personnel, and community-based providers may still have masked variability in reactions within those groups. For example, there may be meaningful differences in reactions between law enforcement and prosecution, or between SANEs and counselors. Despite these considerations, the current study advances understanding of the structure of the SRQ and provides a template for using this measure in both practice and research settings to better evaluate the impact of social reactions from criminal justice personnel and community-based providers.

Authors' Note

The views expressed are those of the authors and do not necessarily represent the views or the official position of the National Institute of Justice or any other organization. A summary of these findings are described in a summary overview report submitted to the National Institute of Justice.

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References

- Ahrens, C. E. (2006). Being silenced: The impact of negative social reactions on the disclosure of rape. *American Journal of Community Psychology, 38*, 263-274. doi:10.1007/s10464-006-9069-9
- Ahrens, C. E., Cabral, G., & Abeling, S. (2009). Healing or hurtful: Sexual assault survivors' interpretations of social reactions from support providers. *Psychology of Women Quarterly, 33*, 81-94.
- Archambault, S. J., & Lonsway, K. A. (2017). *Reporting methods for sexual assault cases*. Retrieved from <http://www.evawintl.org/Library/DocumentLibraryHandler.ashx?id=35>
- Black, M. C., Basile, K. C., Breiding, M. J., Smith, S. G., Walters, M. L., Merrick, M. T., . . . Stevens, M. R. (2011). *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 summary report*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Borja, S. E., Callahan, J. L., & Long, P. J. (2006). Positive and negative adjustment and social support of sexual assault survivors. *Journal of Traumatic Stress, 19*, 905-914. doi:10.1002/jts.20169
- Bryant-Davis, T., Chung, H., & Tillman, S. (2009). From the margins to the center ethnic minority women and the mental health effects of sexual assault. *Trauma, Violence, & Abuse, 10*, 330-357.
- Campbell, R., Ahrens, C. E., Sefl, T., Wasco, S. M., & Barnes, H. E. (2001). Social reactions to sexual assault victims: Healing and hurtful effects on psychological and physical outcomes. *Violence and Victims, 16*, 287-302.
- Campbell, R., Dworkin, E., & Cabral, G. (2009). An ecological model of the impact of sexual assault on women's mental health. *Trauma, Violence, & Abuse, 10*, 225-246. doi:10.1177/1524838009334456

- DePrince, A. P., & Chu, A. T. (2008). Perceived benefits in trauma research: Examining methodological and individual difference factors in responses to research participation. *Journal of Empirical Research in Human Research Ethics, 3*, 35-47.
- DePrince, A. P., & Mitchell, C. (2010, August). *Women's perceptions of social responses following intimate partner violence*. Paper presented at the Annual Meeting of the American Psychological Association, San Diego, CA.
- DePrince, A. P., Welton-Mitchell, C., & Srinivas, T. (2014). Longitudinal predictors of women's experiences of social reactions following intimate partner abuse. *Journal of Interpersonal Violence, 29*, 2509-2523. doi:10.1177/0886260513520469
- Filipas, H. H., & Ullman, S. E. (2001). Social reactions to sexual assault victims from various support sources. *Violence and Victims, 16*, 673-692.
- Fisher, B. S., Daigle, L. E., Cullen, F. T., & Turner, M. G. (2003). Reporting sexual victimization to the police and others: Results from a national-level study of college women. *Criminal Justice and Behavior, 30*, 6-38.
- Goldberg, L. R., & Freyd, J. J. (2006). Self-reports of potentially traumatic experiences in an adult community sample: Gender differences and test-retest stabilities of the items in a brief betrayal-trauma survey. *Journal of Trauma & Dissociation, 7*(3), 39-63.
- Greeson, M. R., & Campbell, R. (2013). Sexual Assault Response Teams (SARTs): An empirical review of their effectiveness and challenges to successful implementation. *Trauma, Violence, & Abuse, 14*, 83-95. doi:10.1177/1524838012470035
- Hox, J. J., Moerbeek, M., & van de Schoot, R. (2010). *Multilevel analysis: Techniques and applications*. New York, NY: Routledge.
- Koss, M. P., Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M., . . . White, J. (2007). Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly, 31*, 357-370. doi:10.1111/j.1471-6402.2007.00385.x
- Levendosky, A. A., Bogat, G. A., Theran, S. A., Trotter, J. S., von Eye, A., & Davidson, I. I. (2004). The social networks of women experiencing domestic violence. *American Journal of Community Psychology, 34*, 95-109. doi:10.1023/B:AJCP.0000040149.58847.10
- Lievore, D. (2005). *No longer silent: A study of women's help-seeking decisions and service responses to sexual assault*. Canberra: Australian Institute of Criminology.
- Muthén, B. (1997). Latent variable modeling with longitudinal and multilevel data. In A. Raftery (Ed.), *Sociological methodology* (pp. 453-480). Boston, MA: Blackwell.
- Relyea, M., & Ullman, S. E. (2015). Unsupported or turned against: Understanding how two types of negative social reactions to sexual assault relate to postassault outcomes. *Psychology of Women Quarterly, 39*, 37-52. doi:10.1177/0361684313512610
- Starzynski, L. L., Ullman, S. E., Filipas, H. H., & Townsend, S. M. (2005). Correlates of women's sexual assault disclosure to informal and formal support sources. *Violence and Victims, 20*, 417-432.

- Starzynski, L. L., Ullman, S. E., Townsend, S. M., Long, L. M., & Long, S. M. (2007). What factors predict women's disclosure of sexual assault to mental health professionals? *Journal of Community Psychology, 35*, 619-638. doi:10.1002/jcop.20168
- Ullman, S. E. (1996). Social reactions, coping strategies, and self-blame attributions in adjustment to sexual assault. *Psychology of Women Quarterly, 20*, 505-526. doi:10.1111/j.1471-6402.1996.tb00319.x
- 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. doi:10.1111/j.1471-6402.2000.tb00208.x
- Ullman, S. E. (2010). *Talking about sexual assault: Society's response to survivors*. Washington DC: APA Books.
- Ullman, S. E., & Filipas, H. H. (2001). Correlates of formal and informal support seeking in sexual assault victims. *Journal of Interpersonal Violence, 16*, 1028-1047. doi:10.1177/088626001016010004
- Ullman, S. E., Filipas, H. H., Townsend, S. M., & Starzynski, L. L. (2006). Correlates of comorbid PTSD and drinking problems among sexual assault survivors. *Addictive Behaviors, 31*, 128-132. doi:10.1016/j.addbeh.2005.04.002
- Ullman, S. E., & Najdowski, C. J. (2010). Alcohol-related help-seeking in problem drinking women sexual assault survivors. *Substance Use & Misuse, 45*, 341-353. doi:10.3109/10826080903443644
- Ullman, S. E., Starzynski, L. L., Long, S. M., Mason, G. E., & Long, L. M. (2008). Exploring the relationships of women's sexual assault disclosure, social reactions, and problem drinking. *Journal of Interpersonal Violence, 23*, 1235-1257. doi:10.1177/0886260508314298
- 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

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