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Unsupported or Turned Against: Understanding How Two Types of Negative Social Reactions to Sexual Assault Relate to Post-Assault Outcomes

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Abstract

Social reactions to disclosures of sexual assault have significant effects on women's post-assault outcomes (see Ullman, 2010, for a review). The Social Reactions Questionnaire (SRQ; Ullman, 2000) measures these reactions (as reported by survivors) and aggregates them into positive and negative scales. However, studies indicate that only some "negative" reactions have a negative valence for survivors whereas others produce a mixed (positive and negative) valence. The current study compares a one-primary-factor model of "negative reactions" to a model with two primary factors that we have labeled "turning against" and "unsupportive acknowledgement." Results showed that although one primary factor was plausible, two primary factors provided a better fit to the data. To assess the discriminant validity of the two factors, we performed regressions predicting social support, psychological adjustment, and coping behaviors. Analyses supported the hypotheses that reactions of being turned against were related to social withdrawal, increased self-blame, and decreased sexual assertiveness whereas reactions of unsupportive acknowledgement were related to both adaptive and maladaptive coping. Against predictions, depression and PTSD were more related to receiving unsupportive acknowledgement than to receiving turning against reactions. Implications for interventions and research are discussed. Importantly, almost all women (94%) in our sample received reactions that acknowledged that an assault occurred but failed to provide support, and this lack of support was associated with worse coping than even more hostile reactions such as being blamed or stigmatized. Therefore, there seems a great need for effective programs to train community members to respond to survivors with the kind of emotional and tangible support that promotes better outcomes.

Keywords

sexual assault; rape; self-disclosure; social reactions; social support; coping behavior; adjustment; blame

Improving the ability of professionals and community members to provide support to women who have disclosed a sexual assault requires an understanding of how different kinds of reactions may affect women. The Social Reactions Questionnaire (SRQ; Ullman,

2000) is a 48-item measure designed to assess the diversity of reactions that women receive when they disclose a sexual assault. The SRQ contains items that researchers have labeled “positive” reactions (reactions thought to be beneficial such as those that provide support to survivors) and “negative” reactions (reactions thought to be harmful, such as blame). Although women frequently receive positive reactions, researchers more often study negative reactions because such reactions on the SRQ are associated with negative outcomes including post-traumatic stress, maladaptive coping, characterological self-blame, feelings of internal responsibility for assault, problem drinking, physical health, overall psychological distress, depression, interpersonal sensitivity, hostility, paranoia, self-concealment, altered world and self-cognitions, and phobic anxiety (Borja, Callahan, & Long, 2006; Littleton, 2010; Matthews, 2011; Orchowski, 2009, Ullman & Filipas, 2005; Ullman & Najdowski, 2011; Ullman & Siegel, 1995; Ullman, Starzynski, Long, Mason, & Long, 2008; Ullman, Townsend, Filipas, & Starzynski, 2007). Researchers hope that understanding the process of how negative reactions lead to distressing outcomes will allow interventionists to educate people on how to respond to survivors in a manner that promotes greater adjustment.

The SRQ allows for quantifying negative reactions in two ways. First, researchers may use the five specific negative subscales: blaming, stigmatizing, controlling, distracting, or having egocentric reactions (e.g., getting so upset that the survivor needed to comfort the respondent). Second, researchers may aggregate all items thought to be negative. The subscales may be useful for researchers trying to compare the predictive utility of specific subscales or understand the process whereby specific reactions lead to outcomes. On the other hand, aggregates of similarly valenced reactions (e.g., positive or negative) may be more ecologically valid and parsimonious when comparing the effects of reactions to other predictors. Survivors usually receive more than one type of reaction, so creating meaningful aggregates may better represent survivor’s experiences. Indeed, some subscales are moderately-to-highly correlated (Orchowski, Untied, & Gidycz, 2013; Ullman et al., 2007) so that separating them may be somewhat artificial to survivors’ experiences. Statistically, these stronger correlations indicate that entering multiple subscales into the same regression analyses may obscure their combined strength and require larger samples to detect effects. Despite the flexibility provided by having multiple scoring systems, two potential limitations exist with using an overall negative scale in addition to subscales. The first issue is that no researchers have tested a factor model of the SRQ containing both a general factor and subscales. The second issue is that multiple studies have called into question whether all negative items are reliably “negative.” We address both issues in the following review.

Researchers have alternated between using a negative reaction scale and specific subscales (e.g., blame). However, justifying the use of both general and specific factors requires evidence of a complex factor structure. One study hinted at the possibility of complexity. In a principal components analysis on the entire SRQ, Matthews (2011) found several components, yet a scree plot showed only two factors. Such seemingly contradictory findings are possible for, although do not guarantee, a scale with a complex structure. Unfortunately, all known analyses of the SRQ conducted to date have only assessed for a simple structure of subscales (Littleton & Breitkopf, 2006; Matthews, 2011; Sullivan, Schroeder, Dudley, & Dixon, 2010; Ullman, 2000). Therefore, a confirmatory factor

analysis (CFA) is necessary to know whether using both general and specific scales is warranted.

Two Kinds of Negative Reactions

Research indicates that aggregating all negative reactions may be too simplistic. Some researchers have asked participants, in addition to whether they experienced a reaction, whether that reaction was healing or hurtful. Such analyses show that survivors see some reactions (e.g., blaming or stigmatizing) as primarily hurtful and other reactions (e.g., controlling, egocentric, distracting) as either inappropriate or both healing and hurtful (Ahrens, 2006; Ahrens, Cabral, & Abeling, 2009; Ahrens, Campbell, Ternier-Thames, Wasco, & Sefl, 2007; Campbell, Ahrens, Sefl, Wasco, & Barnes, 2001; Muganyizi & Hoga, 2009). As stated above, aggregates on the SRQ provide a metric of reactions with a similar valence. Survivors seem to be stating that some of the “negative” items are more negatively valenced and others are more mixed (positive and negative). Continuing to combine these different items into one “negative reactions” scale risks ignoring how survivors perceive these kinds of responses. Conversely, combining items into two categories based on survivors’ perceptions has more ecological validity for understanding survivor’s experiences. Also, discovering what items within categories have in common can indicate how survivors categorize reactions and can help delineate the process through which reactions, as well as perceptions of reactions, affect post-assault outcomes. A review of items and the literature led us to label the more negatively valenced items as “turning against” reactions and the mixed valenced items as “unsupportive acknowledgement” reactions.

Reactions that have been found consistently hurtful, such as blaming or stigmatizing, appear to overtly attack the survivor and reframe the survivor as the problem. A large literature exists on blame and stigma, yet what makes these reactions unique on the SRQ is that they occur in the context of a relationship where women have disclosed sensitive personal information and may have been specifically seeking support. In the couples’ therapy literature, hostility to a partner who is looking for an emotional connection is referred to as a “Turning Against” reaction (Gottman & Driver, 2005). Although the term carries its own implications in couples therapy, we borrow the term here as a similar, although more extreme, case of turning against someone seeking support. Perhaps unsurprisingly, these reactions that survivors state are “hurtful” are the responses most often associated with negative consequences. Turning Against reactions are associated with withdrawal and depression (Gottman, 2005). More specifically, reactions of stigma and blame are related to increased victim self-blame, which is in turn associated with social withdrawal and decreased sexual refusal assertiveness (Brewin, MacCarthy, & Furnham, 1989; Frazier, Mortensen, & Steward, 2005; Katz, May, Sörensen, & DelTosta, 2010; Littleton & Breitkopf, 2006). Similarly, being treated differently (stigma) is correlated with decreased social contact (Ullman, 2000). Lastly, negative reactions (as indicated by blame, stigmatization, and controlling reactions) were related to avoidance coping, PTSD, and self-blame (Ullman et al., 2007). Thus, many negative psychological and behavioral outcomes often associated with negative reactions (self-blame, depression, PTSD, withdrawal) seem specifically related to more overtly hostile reactions of being turned against.

As we stated, survivors report that controlling, distracting, and egocentric responses are both healing and hurtful. These reactions appear to share a positive aspect of acknowledging the assault, as well as a negative aspect of not explicitly providing emotional or tangible support. Whereas blaming and stigmatizing reactions reframe the survivor as the problem, unsupportive acknowledgement frames the assault as part of the problem. For example, when survivors reported that others “Told you to stop thinking about it” (distraction), this implies an acknowledgment that the assault is the issue, yet it invalidates the survivor’s desire to disclose and fails to provide the survivor with coping skills. Thus, the mixture of positive and negative leaves reactions of unsupportive acknowledgement open to interpretation depending on the dynamic between the survivor’s needs, expectations, and perceptions of the support-provider’s actions. Despite not being as overtly negative, lack of support can be quite harmful for someone expecting or seeking support. Bolger, Zuckerman, and Kessler (2000) found that people were the most adversely affected when enduring costs of seeking support (e.g., reduced self-esteem, competence, perceived equality) without the benefits of receiving actual support. Thoits (1986) theorized that the ultimate goal of support is to provide people with a means of coping, therefore, a lack of support (or low quality support) may particularly adversely affect coping (Rini & Dunkel-Schetter, 2010). For instance, compared to other negative reactions, egocentric reactions were the most predictive of avoidant coping (Littleton & Breitkopf, 2006). Similarly, avoidance coping measures (self-distraction, denial, and behavioral disengagement) were more strongly correlated with controlling reactions than with the more hostile reactions of blame or being treated differently (stigmatized) (Ullman et al., 2007).

Reactions of both positive support and unsupportive acknowledgement involve acknowledgement of the assault. As may be expected from this shared variance, Ullman (2000) found that some of the hypothesized subscales of unsupportive acknowledgement (egocentric and distracting reactions) were correlated positively with one of the positive support scales (tangible aid). Therefore, to avoid conflating the two constructs, it is important to distinguish them conceptually and in analyses. In addition to acknowledging the assault, positive reactions include emotionally supportive behavior (e.g., showing concern, telling survivors it was not their fault) and tangible aid (e.g., providing options for resources). Positive reactions are believed to buffer distress and are associated with a decrease in symptomology (Campbell, Dworkin, & Cabral, 2009). Whereas turning against reactions are associated with withdrawal from social contact and greater self-blame, positive reactions are associated with increases in social contact (Ullman, 2000) and decreased characterological self-blame (Ullman & Najdowski, 2011). Importantly, positive reactions provide emotional and tangible resources for coping. Two known studies have found that positive reactions were associated with adaptive coping strategies (e.g., social support coping) but not maladaptive strategies (Sullivan et al., 2010; Ullman & Najdowski, 2011). However, both studies used coping to predict reactions; so, a test of the reverse direction remains to be done using the SRQ scales. Overall, positive reactions include the acknowledgment along with the additional benefits of support. This difference seems to matter for survivors; whereas survivors feel a mixed valence towards unsupportive acknowledgement, they have a more reliably positive valence towards supportive reactions (Campbell et al., 2001)

Objectives of the Present Study

We have seen that having two scoring systems for the SRQ (subscales and the larger aggregates) helps capture the complexity of survivors' experiences and has theoretical benefits for researchers. However, the question remains whether having two scoring systems makes empirical sense: Do aggregates and subscales each explain independent variance in negative reactions? Furthermore, the finding that survivors differentiate two kinds of negative reactions creates a second question: Does having two "negative" aggregates add anything to theory not already accounted for by having one negative aggregate with subscales? To answer each question in the affirmative requires evidence that the SRQ has a factor structure that supports both aggregates and subscales, as well as demonstrating that turning against reactions and unsupportive acknowledgment have differential effects.

Thus, the purpose of present study is threefold: (a) assess the plausibility that the items previously labeled "negative" on the SRQ show a factor structure containing one general factor of "negative reactions" along with subscales, (b) assess the plausibility that the items previously labeled "negative" items on the SRQ show a factor structure containing two separate primary factors of "turning against" and "unsupportive acknowledgement" along with subscales, and (c) assess for the discriminant validity and potentially different effects of turning against (TA) and unsupportive acknowledgement (UA) on social support, psychological adjustment, and coping behavior. Validity tests also include discriminating between unsupportive acknowledgement and supportive reactions so as not to conflate the associations between the two likely correlated constructs. In our analyses of these goals, we put forth two sets of hypotheses focused on our factor analyses and establishing discriminant validity.

For our factor analysis of the "negative" items on the SRQ, similar to prior findings, we predict that the one general "negative reactions" factor with five specific sub-factors will have adequate model fit. In other words, even if items share some common variance of being unsupportive or "negative," conceptually related items will still load into their respective separate sub-factors based on the specific types of reactions women received. On the other hand, because survivors report that some negative items have a reliably negative valence whereas others have a mixed positive/negative valence, we predict that analysis of the negative items will show that two primary factor model will provide a stronger fit than the one general factor model. However, we still expect that conceptually related items will continue to load into their respective sub-factors based on the specific type of reactions women received.

Turning next to discriminant validity, based on findings that blaming and turning against a partner seeking emotional support may lead to withdrawal, reactions of TA are predicted to result in more withdrawal than UA, as indicated by reduced social contact and perceived social support. Conversely, positive supportive reactions should, similar to past findings, be related to greater social contact and perception of social support. Furthermore, based on findings that more overtly negative reactions seem linked to poor psychological outcomes (e.g., the "second injury" some survivors report), experiencing TA is predicted to result in more distress and withdrawal than UA as indicated by greater depression, PTSD, self-blame,

and lower refusal assertiveness. Positive support, on the other hand, is predicted to be related to decreased self-blame (similar to past findings) and therefore greater sexual refusal assertiveness.

Finally, given that social support is thought to be a resource for coping and that quality of support affects coping (Rini & Dunkel-Schetter, 2010; Thoits, 1986), we theorize that acknowledgement of a problem increases *attempts* to cope, whereas the type of support directs *how* to cope (e.g., receiving positive emotional support should be related to using more emotional support coping strategies). Therefore, positive reactions (that include acknowledgment as well as emotional and tangible support) will increase attempts to cope and direct this coping toward adaptive coping strategies—as indicated by greater individual and interpersonal coping and lower maladaptive coping. Reactions of UA (acknowledgment without the direction of support) will increase attempts to cope in general, as indicated by both increased individual and maladaptive coping. As stated previously, reactions of TA are expected to result in more self-blame and withdrawal. Because the maladaptive coping scale contains related subscales (self-blame coping and behavioral disengagement), TA is also expected to relate to increased maladaptive coping. Lastly, because acknowledgement is thought to increase attempts to cope, and reactions of TA lack acknowledgment, maladaptive coping will be more related to UA than TA.

Methods

Participants

A final sample of 1863 women participated in our study. Their ages ranged from 18 to 71 ($M = 36.51$, $SD = 12.54$), and the sample was racially diverse: 836 (44.9%) African-American, 655 (35.2%) White, 38 (2.0%) Asian, 130 (7.0%) multiracial, and 204 (10.9%) other, unknown or unreported. In terms of ethnicity, 246 (13.2%) reported being Latina/Hispanic. The majority had some college education—586 (31.5%) with college degree or higher, 778 (41.8%) with some college education—and 466 (26.1%) had a high school education or less. Just under half (793, 42.6%) were currently employed and 1266 (67.9%) women had household incomes of less than \$30,000. The full sample was used for all regression analyses.

Procedure and Materials

Volunteers were recruited from the Chicago metropolitan area using advertisements distributed both online (online newspapers, Craigslist, university mass mail) and in print (weekly local newspapers and fliers posted in the community, at local universities, and at social service agencies). Fliers and ads stated that we were recruiting women for a study to “understand women’s reactions to unwanted sexual experiences.” The fliers also stated we were looking for women who were “at least 18 years old,” “had an unwanted sexual experience since age 14,” and had told “someone about the experience.” Participants who called the number listed were screened for eligibility by trained female graduate research assistants using a telephone script. We mailed eligible participants the survey (which included the measures outlined in the following section in the order in which they appear), a cover letter explaining the study, an informed consent document, a list of community

resources for survivors, and a stamped return envelope for the completed survey. All recruitment and study materials were in English. If participants did not return the survey within 4–6 weeks, research assistants made follow-up calls to confirm that participants received the survey and to provide women a chance to ask any questions. Women who changed their mind regarding participation were thanked; women who had lost or not received a survey were sent another survey packet. Women who returned surveys were paid \$25. The return rate was 85%.

Frequency of social contact—The frequency of social contact over the past 12 months was assessed using five questions on the frequency of contact with social network members from the RAND Health Insurance Experiment (Donald & Ware, 1984). Questions included the frequency of getting together with friends or relatives, having friends at your home, visiting your friends' homes, attending religious services, and communicating with your friends or relatives by using a telephone or electronic communication (chatting online, skypeing); skypeing and chatting online were added to the question for the present study. Responses were measured on a Likert scale from 1 (*less than 5 times during the past 12 months*) to 7 (*every day*). Reliability ($\alpha = .70$) was adequate ($M = 3.74$, $SD = 1.19$). The composite score was based on the average items, with higher scores indicated greater frequency of social contact.

Perceived social support—Perceived social support was measured using the Social Support Questionnaire Short Form Revised (SSQSR; Sarason, Sarason, Shearin, & Pierce, 1987). Participants were asked to answer 1 (*Yes*) or 0 (*No*) to whether they experienced any of six different items regarding their perception that someone is there for them (e.g., “Is there someone you can really count on to be dependable when you need help?”). Items are summed for a possible range of 0 to 6 wherein higher scores indicate greater perceived social support. Reliability ($\alpha = .84$) was good ($M = 5.28$, $SD = 1.44$).

Depression and PTSD—Depression was measured using a 7-item version of the Center of Epidemiologic Studies Depression Scale (CESD-7) modified by Mirowsky and Ross (1990). In our study, participants were asked to rate their symptoms over the past 12 months using a 5-point Likert scale from 0 (*never*) to 5 (*always*). In our sample, reliability ($\alpha = .86$) was satisfactory. Items were averaged ($M = 2.01$, $SD = .75$) with higher scores indicating more depressive symptoms. Symptoms of posttraumatic stress were assessed with the Posttraumatic Stress Diagnostic Scale (PDS; Foa, 1995), a valid and reliable 17-item instrument based on DSM-IV PTSD criteria. Participants were asked to rate how often over the past 12 months they experienced symptoms in relation to their most serious sexual assault on a scale ranging from 0 (*never or only one time*) to 3 (*almost always*). Items are summed ($M = 21.13$, $SD = 12.93$, $\alpha = .93$) so that higher scores indicated greater endorsement of post-traumatic stress symptoms.

Characterological self-blame—Characterological self-blame over the past 12 months was measured using the Rape Attribution Questionnaire (RAQ; Frazier, 2003). The RAQ measure of characterological self-blame assesses whether survivor's attribute the reasons for the assault to their own character. The five item were measured on 5-point scale from 1

(*strongly disagree*) to 5 (*strongly agree*). Frazier has reported alpha coefficients for women sexual assault survivors ranging from .77–.89. In our sample, reliability ($\alpha = .76$) was acceptable. Items were averaged ($M = 2.56$, $SD = .96$), with higher scores indicating more characterological self-blame.

Coping strategies—Strategies used over the past 12 months in order to cope with the sexual assault were assessed with the 28-item Brief COPE (Carver, 1997). The measure contains 28 items on a Likert scale from 1 (*I didn't do this at all*) to 4 (*I did this a lot*). These items are broken into 14 types of coping strategies (e.g., substance abuse coping) composed of 2-items each. Carver (1997) recommends that those who wish to create composites (e.g., maladaptive coping) perform their own factor analysis. Our factor analysis using principal axis factoring with Promax rotation in SPSS 19 revealed that humor coping did not load with other factors. Self-distraction coping (normally seen as a form of avoidance) had fairly low loadings and loaded better with active coping (likely due to self-distraction items that are worded as active; “I tried to...”). Therefore, these two types of coping were not used. The remaining items were categorized as maladaptive coping (8 items; $M = 16.35$, $SD = 5.78$, $\alpha = .81$), positive individual coping (12 items; $M = 29.19$, $SD = 7.81$, $\alpha = .83$), and positive interpersonal coping (4 items; $M = 9.10$, $SD = 3.72$, $\alpha = .87$). Maladaptive coping strategies included items that may help the survivor initially deal with symptoms but are potentially harmful and not likely to work in the long term, such as denial or substance abuse. Positive individual coping includes adaptive strategies such as planning or reframing something in a positive way. Positive interpersonal coping refers to adaptive social coping strategies such as seeking emotional support or advice from others. All scales were created using the average of items, with higher scores indicating higher use of that specific form of coping (e.g., greater maladaptive coping).

Social reactions to disclosing sexual assault—Social reactions to disclosing sexual assault were measured with the Social Reactions Questionnaire (SRQ; Ullman, 2000). In our study, survivors were asked how often they received each of the 48 reactions when they told other people about their unwanted sexual experiences. Responses were measured on a Likert scale from 0 (*never*) to 4 (*always*). The scale contains seven subscales (blame, stigmatization, control, distract, egocentric, emotional support, and tangible support) and two general scales of positive reactions ($M = 2.22$, $SD = 0.95$, $\alpha = .92$) and negative reactions, ($M = .96$, $SD = .80$, $\alpha = .93$). The SRQ has good 2-month test–retest reliability ($r = .68$ –.77; Ullman, 2000). Composite scales were calculated using the averaged items, with higher scores indicating greater endorsement of each construct (e.g., higher scores on positive reactions indicate receiving more positive reactions).

Sexual refusal assertiveness—Sexual refusal assertiveness was assessed with the refusal assertiveness subscale of the Sexual Assertiveness Scale (SAS; Morokoff et al., 1997). On this 6-item scale, participants rated their agreement with statements regarding what they do, or believe they would do, given different scenarios of unwanted sexual contact from their partner. Items are measured on a Likert scale from 1 (*Strongly disagree*) to 4 (*Strongly agree*). Reliability was adequate, $\alpha = .78$. Items were averages ($M = 3.34$, $SD = .94$), with higher scores indicating more sexual refusal assertiveness.

Control variables—In our regression analyses, we controlled for the following variables, which have been found in prior studies to affect psychological and behavioral adjustment. (a) Number of traumatic life events was assessed using the Stressful Life Events Screening Questionnaire (SLESQ-Revised; Green, Chung, Daroowalla, Kaltman, & DeBenedictis, 2006). In our study, the SLESQ included a question on stalking (T. K. Logan, personal communication, March 5, 2007), and we added a question on neighborhood/community violence: “Have you ever lived in a neighborhood or community where you felt threatened or your life was in danger?” Child and adult sexual assault questions were not asked because they were assessed separately. Items were summed ($M = 5.68$, $SD = 3.18$). (b) Both Severity of Childhood Sexual Assault and Severity of Adult (at age 14 or older) Sexual Assault were assessed using Testa, VanZile-Tamsen, Livingston, and Koss’s (2004) modified version of the Sexual Experiences Survey (Koss, Gidycz, & Wisniewski, 1987). All items were worded the same for child and adult sexual assault. Participants were given two columns to answer each item for the time periods “before age 14 years” and at “at age 14 years or older.” A 5-level ordinal variable (0 = “no victimization,” 1 = “sexual contact,” 2 = “sexual coercion,” 3 = “attempted rape,” 4 = “completed rape”) was used to assess severity of child sexual assault ($M = 1.88$, $SD = 1.72$) and adult sexual assault ($M = 3.60$, $SD = .89$). (c) The number of years since the sexual assault was calculated based on the respondent’s current age minus the age they stated at which the assault occurred ($M = 14.90$, $SD = 12.22$, range = 0–59 years). (d) Whether survivors thought their life was in danger during the sexual assault was assessed with a question answered “No” (0) or “Yes” (1); 1030 (58%) survivors answered affirmatively. (e) Whether survivors were using alcohol prior to the assault was also assessed, with 560 (31%) stating “yes.”

Data Analysis Plan

We conducted our data analyses in two stages. In the first stage, we ran factor analyses on the “negative” items of the SRQ to assess the plausibility of the hypothesized factor structures. In the second stage, we ran multiple-linear regressions on all hypothesized outcomes.

Analysis plan for factor analyses—A potential concern of factor analyses on the SRQ is that women who told several people about their assault would have to average reactions from multiple people per item. Although all previous SRQ factor analyses have included women who did this, we hypothesized that such aggregations across many people may hurt our ability to see factors that are typically considered within-person constructs. To evaluate this possibility, we assessed the fit of the original factor structure of the SRQ on groups of women by how many people they told. In order to have adequate sample size to assess for factor structure, women were broken into groups based on quartiles. Results showed that model fit was not related to the number of people women told (Table 1) and therefore not a threat to assessing factor structure. Based on these analyses and in line with past analyses of the SRQ, we assessed factor structures based on the full sample of women who reported telling someone about the assault ($n = 1631$; 88% of the sample).

Assessing for both primary and specific factors requires the use of two-tiered factor models (Cai, 2010). Two-tiered models test whether a primary factor (e.g., “negative reactions”) or

factors (“turning against” or “unsupportive acknowledgment”) can explain the intercorrelations between items and whether domain specific group factors (e.g., the subscales) explain additional variance between sets of items. Such models should not be confused with a higher-order factor analysis in which a “higher” factor explains the correlations among sub-factors. Although both higher-order and two-tiered models may have similar fits, they are theoretically quite different. A higher-order model is not appropriate here because we have not theorized that some “negativity” is causing relationships between subscales.

Figure 1 displays both two-tiered models we used for analyses. Figure 1a contains the one-general factor model (also called a bi-factor model, where the items are split between one primary factor, called a general factor, and multiple specific factors). Figure 1b contains the two-primary factor model. Both models assume that the subscales account for specific relationships between sets of items. Figure 1a displays the assumption of a “negative reactions” scale: that all items share a similar negativity. Figure 1b displays our hypothesis that there is a commonality between items that survivors report as primarily negative (turning against reactions) and a separate commonality in items reported to result with more mixed valence (unsupportive acknowledgment). Because we are comparing one general factor to two primary factors, it is important to note that the bi-factor analysis tests for *one* general factor, despite the perhaps misleading “bi.” Bi-factor analyses (splitting items into *two* parts: *one* general factor with specific factors) were conceived of before theorists realized that analyses could be extended to any case where items were split into two parts (*multiple* primary factors with specific factors). To avoid reader confusion, where possible we describe these as one general factor vs. two primary factors. However, it is important for the reader to remember throughout that bi-factor analyses test for *one* general factor with specific group factors.

In order to test hypotheses concerning factor models, we followed a 4-step procedure of first running an exploratory bi-factor analysis to assess for the plausibility of the existence of a general “negative” factor. Second, we ran a confirmatory bi-factor model constraining items to load on their hypothesized subscales and on one “negative reactions” factor. Third, we ran a confirmatory model constraining items to load on their respective subscales and two primary factors of “turning against” and “unsupportive acknowledgment.” Fourth, we compared the model fits from between the second and third steps. The rationale and details of each step are described in the following.

Step 1: Exploratory bi-factor analysis: In the first step we ran exploratory bi-factor analyses on the negative SRQ items to assess for plausibility of a general factor existing in addition to several group factors. An exploratory bi-factor analysis helps to evaluate this hypothesis in three ways. First, an exploratory model does not make assumptions regarding which items load on which group factors; rather, the model attempts to maximize the amount of variance explained. Second, the model, when using the omega function in the psych package in R, will show how important the specific factors (e.g., blame) are above the general negative reactions factor by providing the model fits for both the bi-factor structure and a general factor only. Third, the omega function gives the statistics omega hierarchical and omega total. Omega hierarchical assesses the extent to which all items are saturated by

one general factor and is considered a more robust measure of reliability than alpha (Revelle & Zinbarg, 2009). Omega total reflects the variance accounted for by both general factors and the additional group factors. There are no general guidelines for a “good” omega hierarchical but it tends to be slightly lower than alpha, with a score closer to 1 representing a greater proportion of variance accounted for by one general factor (Revelle & Zinbarg, 2009). Because it allows for variance of multiple factors, omega total is typically higher than alpha unless the test only has one underlying factor. Thus, an exploratory factor analysis (EFA) maximizes the variance explained by the number of factors specified, gives the proportion of variance accounted for by one general factor, and reveals whether group factors explain more variance than the general factor alone. Therefore, if such a model does not show any evidence of a bi-factor structure, confirmatory models that place even more restrictions on the factor structure may not be warranted. The omega function returns fit statistics RMSR and RMSEA. Given that the measure seeks to explain the greatest variance, we used the more conservative cut-off scores of .06 for RMSEA and .08 for SRMR (Hu & Bentler, 1999).

Steps 2 and 3: Confirmatory factor analyses: In the second and third steps, we ran a CFA allowing all items to load on their hypothesized subscales (blame, stigmatize/treat differently, control, egocentric, distract) as well as one general “negative reactions” scale (second step) or on both TA and UA (third step). All subscale latent variables had variances set to 1. Furthermore, some items within sub-factors that had wordings that appeared to be rephrasings, or otherwise shared conceptual variance, were allowed to correlate. All confirmatory factor analyses were run in AMOS using maximum likelihood estimation. Means and intercepts were estimated to account for missing data (all items had less than 5% missing). To assess model fit we used TLI, CFI, and RMSEA. We did not use SRMR because SRMR has no penalty for complexity and tends to be naturally lower given larger sample sizes with a high number of parameters. There is considerable controversy regarding what cut-off values should be used and indeed whether cut-off values should be used at all (Kline, 2011). However, researchers tend to agree that fit indices can be useful to avoid extreme misfit and to compare models (Hoyle, 2012). Given the complexity of our models, we chose a combination of fit indices that are sensitive to model misspecification and penalize for complexity (RMSEA, TLI, and CFI). However, because factors are normally considered within-person constructs and the SRQ measures reactions from others (sometimes aggregating across individuals), we chose the less conservative cut-offs of .90 for TLI and CFI and .08 or less for RMSEA to assess for model misspecification.

Step 4: Comparing factor models: In step four, we compared the one- and two-primary factor models in order to judge fit. The models are nested which permits tests of fit; however, because of the large sample size, a chi-square difference is likely to be highly significant even with miniscule improvements to fit. Therefore, we used Cheung and Rensvold’s (2002) recommendation of a decrease in CFI of .01 or more to compare models for invariance. Additionally, Barrett (2007) argues that models should be validated in part by their predictive accuracy. Thus, our tests for discriminant validity are further tests of our factor models.

Analysis plan for discriminant validity—In order to test discriminant validity, we first performed correlations among reactions variables. Because survivors report mixed valence regarding UA reactions, we expected UA to be correlated with both the more negative TA and positive supportive reactions. However, to ascertain that UA was a separate construct, we expected those correlations to be less than .8. Second, we compared reaction variables in hierarchical regression models predicting social support, psychological symptoms, and coping strategies. In all models, control variables, were entered in the first step and reactions variables were entered in the second step. As stated, ensuring the discriminant validity of UA requires differentiating it from the supportive acknowledgement that comes with positive reactions. Because we expect the two to be correlated, not including positive reactions in regression models could conflate these two constructs and their associations with criterion variables. Therefore, although the primary purpose of our analyses is to discriminate the two kinds of negative reactions, positive supportive reactions were also included in all analyses. Discriminant validity is indicated in regression analyses by ensuring differences in directionality and relative effect size effects among reactions variables.

Results

Factor Analyses

Step 1: Exploratory bi-factor analysis—First, we assessed for the plausibility of a one general factor structure with five sub-factors using an exploratory bi-factor analysis in the psych package in R. The fit for the bi-factor model was good (RMSR = .03, RMSEA = .06). Notably, omega hierarchical was fairly high ($\omega_h = .77$). Yet, nine items loaded below .5 on a general factor (two of the control items, all four of the egocentric items, and three of the distract items). Although the general factor saturation was strong, omega total was substantially higher ($\omega_t = .95$). Thus it appears that the sub-factors explain important variance even after controlling for a general factor. This conclusion was further confirmed because the general factor model without group factors loaded much worse (RMSEA = .10, RMSR = .07).

Step 2: Confirmatory factor analysis for a general factor—Because the exploratory analyses showed that one general factor was plausible, we ran a confirmatory bi-factor model to assess one general factor of negative reactions (see Figure 1a). The model had an acceptable fit ($\chi^2 = 1736.31$, TLI = .90, CFI = .92, RMSEA = .058). In support of research that has combined all items into one negative response scale, all items loaded significantly on a general negative factor. Furthermore, in support of the robustness of subscales, all items except two loaded significantly ($p < .05$) on their respective subscales even after accounting for variance explained by a general factor.

Step 3: Confirmatory model for two primary factors—In order to assess the plausibility of the hypothesized factors, we created two latent variables representing “turning against” and “unsupportive acknowledgement” (see Figure 1b). Turning against and unsupportive acknowledgement were allowed to correlate. Items theorized to represent reactions of turning against the survivor (items from the subscales “blame” and “treat differently”) were regressed on one latent variable. Items theorized to represent

unsupportive acknowledgement (e.g., egocentric responses and distracting) were regressed on the second latent variable.

Control scale items were divided between TA and UA categories for theoretical and empirical reasons. Campbell et al. (2001) had previously found that a single item overtly representing taking control (“try to control your decisions”) garnered “mixed” feelings from survivors (similar to the egocentric and distracting items). However, the control scale on the SRQ contains items that are hypothesized to take away control, including both overtly controlling items that seem to acknowledge the assault (e.g., “made decisions or did things for you”) as well as some infantilizing responses that seem to turn against the survivor (e.g., “treated you as a child or if you were somehow incompetent”). Given that the control scale seemed related to both TA and UA, we performed a principal axis factoring with Promax rotation in SPSS 19 on the control scale, constraining items to two factors. The more overt control items (“tried to take control of what decisions you made” and “made decisions or did things for you”) loaded on a separate factor with loadings above .6. Given this distinction and Campbell et al.’s finding that survivors report mixed (healing and hurtful) associations with control items, similar to egocentric and distracting items, these two control items were regressed onto the UA scale.

Three other items loaded greater than .6 on the other factor: “treated you as a child,” “minimized the importance of your experience,” and “made you feel like you didn’t know how to take care of yourself.” These seemingly condescending infantilizing responses were regressed on TA. The remaining two items loaded less than .45 on either factor. For theoretical reasons, the item “said she knew how you felt when she really did not” was regressed on the UA scale as an attempt at acknowledgment that failed to provide support (this item also had a slightly higher loading on the control factor in the analyses). The final item “told others about your experience without your permission” was also theorized to be more related to UA than TA. However, that CFA model was not positive definite (i.e., the matrix had at least some eigenvalues that were not positive). Furthermore, the bi-factor analyses revealed that this item loaded well on a general negative factor. Finally correlations showed that this item was the most related to the stigmatizing subscale. Therefore, this item was regressed on TA.

To test the plausibility of a two-tiered model with both TA and UA primary factors, we ran a CFA in AMOS using ML estimation. The model had a very similar, although slightly better, fit than the one general factor model ($\chi^2 = 1578.16$, $TLI = .91$, $CFI = .93$, $RMSEA = .055$). All items significantly loaded on their respective TA or UA factors. Also, in the change from one general factor to two primary factors, two additional items (both from the distract scale) no longer loaded on sub-factors. This indicates that two primary factors may better account for item relationships than one.

Step 4: Comparing factor models—Although it appears that both the one factor “negative reactions” model and two factor “turning against/unsupportive acknowledgement” model are plausible, comparisons favored the two factor model. A chi square difference test indicating the improvement in model fit was significant, yet this was expected given the large sample size. More importantly, all fit indices were lower in the two factor model, and

the difference in CFI was .01, indicating stronger fit. Although egocentric items had modest loadings on UA (.32 to .49), factor loadings of all UA items were on average .06 higher on the UA factor than they had loaded on the general negative reactions factor. The TA items on the other hand barely changed between models (mean difference of .005). Thus, in support of predictions, it appears that the two factor model is stronger.

Creating the TA and UA Scales

Scales were created based on the results from the two factor model. The turning against (TA) scale consisted of 13 items (all items from the blame and stigmatizing scales as well as four items from the control scale; $M = .82$, $SD = .93$, $\alpha = .92$). The unsupportive acknowledgement (UA) scale consisted of 13 items (all egocentric and distract items as well as 3 items from the control scale; $M = 1.11$, $SD = .84$, $\alpha = .85$). No items could be removed to improve alphas. Both scales had skew and kurtosis less than 1.5. Similar to past studies, survivors received positive reactions more often than negative ones. Whereas 1602 (99%) women received some type of supportive positive reaction, only 1245 (78%) received some type of turning against reaction. Unsupportive acknowledgement was more common than overtly negative reactions for 1514 (94%) women.

Correlations

We ran bivariate correlations on all variables (see Table 2). Because of the large sample size, most correlations were significant. Therefore, correlations less than .1 were not considered meaningful. As predicted, most control variables and social reactions had small to medium correlations with outcome variables. In general, more recent assault and greater levels of trauma (childhood and adult sexual assault, stressful life experiences, and believing their life was in danger) were associated with increased levels of symptomatology, decreased social contact, lower perceived social support, and increased coping behavior. Similarly, trauma experiences had small to moderate positive correlations with all three social reactions. Neither years since the assault nor victim's alcohol use were associated with social reactions. As expected, UA correlated positively with both turning against reactions and positive reactions. Although the correlations are moderate to large, they are below .80, indicating that multicollinearity is not an issue and that factors represent separate constructs. Turning against and positive reactions did not correlate.

Discriminant Validity

Results from regression analyses to determine discriminant validity are reported in Tables 3 and 4. In both tables, we report results from the second step of hierarchical regressions after having entered control variables in the first step. Thus, the tables show the individual, as well as combined, contributions from adding reactions variables.

Social support—To assess for the association between social support and social reactions, we performed regression analyses on both the frequency of social contact and quality of social support. Control variables predicted 4% of the variance in the frequency of social contact, with more stressful life events and greater years since the assault associated with less social contact. Reaction variables contributed an additional 5% of variance. As predicted, reactions of TA were associated with less social contact whereas positive support

was related to more contact. UA was not related to frequency of social contact. Analysis of perceived support revealed a similar pattern. Control variables predicted 3% of variance with more stressful life events predicting less perceived support. Again, as predicted, social support was negatively related to TA and positively related to positive supportive reactions; UA was not significant. Overall, reactions of being turned against had a different impact from unsupportive acknowledgment. In support of our first hypothesis, receiving reactions of being turned against was associated with greater social withdrawal. Conversely, receiving positive reactions was related to reporting more contact and support.

Psychological and behavioral adjustment—To assess whether reactions variables relate to psychological adjustment, regressions were performed on depression, PTSD, self-blame, and sexual refusal assertiveness. Control variables explained 17% of depression, 23% of PTSD, 8% of self-blame, and 2% of refusal assertiveness. With some exceptions, all psychological and behavioral adjustment variables were associated with fewer years since the assault, more stressful life events, greater severity of childhood and adulthood sexual assault, and with survivors feeling their life was in danger. The only exceptions were: severity of adult assault was not related to self-blame nor refusal assertiveness; refusal assertiveness was not related to feeling their life was in danger, years since the assault, nor stressful life events.

Relationships between reactions and psychological functioning partially supported hypotheses. Against predictions, UA was the strongest predictor of increased depression. TA, after controlling for other variables in the model, was only marginally related to depression ($p = .052$), with an effect size ($\beta = .07$) half that of UA ($\beta = .15$). Similarly, although both TA and UA were predictive of PTSD, UA was a slightly stronger predictor. Positive reactions were related to less depression although the effect size was small ($\beta = -.06$) and about equal magnitude to TA. Greater positive reactions were not related to PTSD symptoms.

As predicted, TA was predictive of increased characterological self-blame, and positive reactions were predictive of decreased characterological self-blame. UA was only marginally predictive ($p = .07$). Also in support of our predictions, and consistent with greater withdrawal, TA was related to less sexual refusal assertiveness whereas positive reactions were related to more sexual refusal assertiveness. However, these results for TA should be tempered because the effect size of TA was small ($\beta = -.09$) and only about half that of positive support ($\beta = .17$). UA was not related to refusal assertiveness.

Coping—To assess how reactions variables related to coping strategies, regressions were performed on maladaptive coping, positive individual coping, and interpersonal coping. Control variables explained 19% of the variance in maladaptive coping, 7% of positive individual coping, and 2% of the variance in interpersonal coping. Whereas all control variables were predictive of maladaptive coping (except severity of adult assault) and positive individual coping (except severity of adult assault and years since the assault), only fewer years since the assault and greater perception of life threat were associated with increased interpersonal coping.

Analyses of reactions were in line with predictions regarding coping strategies. Receiving TA was related to maladaptive coping. Yet, UA was more than twice as predictive as TA for maladaptive coping, and UA was also related to more positive individual coping. Receiving positive supportive reactions was related to more positive coping (both interpersonal and individual) and less maladaptive coping. Lastly, given the theoretical relationships presented between social support and coping, it is notable that reactions variables explained more variance in coping strategies (8%–17%) than they did to other psychological and behavioral variables (3%–8%).

Discussion

Our results support the hypotheses that women who disclose sexual assault may receive at least two different kinds of negative reactions: reactions of being turned against and reactions of unsupportive acknowledgement. These reactions differed in theory, frequency, and associations. As predicted, survivors who reported that others turned against them (i.e., who were blamed, stigmatized, or infantilized) indicated greater levels of potentially harmful behavior or thinking: social withdrawal, increased self-blame, and decreased sexual assertiveness. In contrast, survivors who received acknowledgment of their assault, but were not supported, (i.e., those who received distracting, controlling or egocentric reactions) engaged in greater maladaptive *and* adaptive individual coping strategies. Against predictions, depression and posttraumatic stress were more related to receiving unsupportive acknowledgement than to receiving turned against reactions. Such findings are notable because unsupportive acknowledgement was experienced by far more survivors (94%) than being turned against (78%).

Using SRQ Aggregates and Subscales

The factor analyses here support continued use of both subscales and larger aggregates on the SRQ. Subscales explain relationships between specific items and are likely more useful for researchers attempting to differentiate out the effects of specific types of reactions. Larger aggregate scales combine items based on the overall valence of the reaction communicated by the support provider. As such, aggregates are likely more useful for researchers who wish to understand the overall impact of reactions on post-assault adjustment, compared to other predictors.

Two Kinds of Negative Reactions

Our results indicate it is important to separate the aggregate reactions of turning against a survivor from the reactions of unsupportive acknowledgement. Previously, the SRQ had one negative reactions scale. Although our results indicated that one general negative factor had a decent fit, the two-factor model had a better fit and explained more variance in unsupportive acknowledgment items. The tests for discriminant validity also showed that the two factors were associated with different outcomes. Both of these findings add psychometric validity consistent with the conceptual distinction made by survivors between reliably negative items and items with a more mixed valence (Ahrens et al., 2009; Campbell et al., 2001, Muganyizi & Hoga, 2009). Most notably, separating these two reactions separates out items that are reliably harmful from ones that may or may not be harmful. In

our study, reactions of turning against were not associated with any indicators of positive adjustment.

When added to the prior literature in which survivors said these were consistently hurtful, it appears that researchers and interventionists examining predominantly “negative” reactions should use the items from the turning against scale. The findings that unsupportive acknowledgement (a) was more common than turning against reactions, (b) was related to both positive and maladaptive coping, and (c) was associated with negative symptomatology indicated that these reactions are common and important to assess in further research. Such research should determine the processes through which survivors make meaning of these reactions, why these reactions are sometimes seen as hurtful or healing, and what survivors mean by healing. Researchers may find the scale more useful for studying the effects of inadequate support rather than overtly negative reactions.

Unsupportive Acknowledgment and Healing

Researchers have found that some negative reactions are reliably seen as hurtful whereas others are seen as both hurtful and healing (Ahrens, 2006, Ahrens et al., 2007; Ahrens et al., 2009; Campbell et al., 2001, Muganyizi & Hoga, 2009). We add here a possible causal theory of how this may occur. Similar to the couples’ therapy literature, turning against a survivor who is seeking support may cause direct harm through increased psychological symptomatology as well as indirect harm through social withdrawal, maladaptive coping, self-blame, and decreased sexual refusal assertiveness. Such indirect harm may be particularly insidious because decreased sexual refusal assertiveness is a predictor of revictimization (Livingston, Testa, & VanZile-Tamsen, 2007). In contrast, those who receive acknowledgment without adequate support may experience a mix of effects with a direct benefit from having their assault acknowledged, an indirect benefit through increased positive coping, and indirect harm through increased maladaptive coping.

We did not directly observe “healing” for women receiving unsupportive acknowledgement; yet, we did see that they were more likely to engage in positive individual coping. We postulate that such coping may lead to different rates of healing. Because we did not have information on trajectories, nor did we know how many years had passed since participants received reactions, it was not possible to test our speculation here. In contrast to any benefits of individual coping, maladaptive coping may make it difficult for survivors to deal with depression or PTSD subsequent to the assault. Because our data are cross-sectional, the directionality of these theoretical causal pathways needs to be tested longitudinally. Alternatively, given that similar “mixed” findings have been reported concerning the effects of labeling an experience as assault, it is possible that the mixed positive and negative results are (at least in part) due to the effects of acknowledgement reactions on how survivors label or conceptualize an assault. Future qualitative research should examine what survivors mean by finding these reactions healing, whether/how that relates to individual coping, and possible indicators of healing (e.g., post-traumatic growth).

It was surprising to us that unsupportive acknowledgement was more associated with PTSD and depression than being turned against because being turned against seems intuitively more distressing. Yet, Campbell, Dworkin, and Cabral (2009) pointed out that survivors

may be particularly upset from negative reactions of friends and family because they were expecting more positive reactions. This implies that there may be differences in who gave unsupportive acknowledgement and turning against reactions, or perhaps an interaction between the reactions and who gave them. These possibilities need to be tested in future studies. Furthermore, Ullman (1996) found that avoidance coping fully mediated the effect of negative reactions on psychological symptoms. Therefore, the stronger relationship found in our study between unsupportive acknowledgment and maladaptive coping may have also led to a stronger relationship between unsupportive acknowledgment and psychological distress.

It is important to remember that unsupportive acknowledgement only refers to acknowledgment of the assault, not acknowledgment of the survivor's emotions or interpretations of the assault (which would be forms of emotional support). Therefore, loadings from the subscales on UA reflect the degrees to which people giving reactions focus on the assault. In this light, the finding that egocentric items had loadings less than .50 on UA is not surprising because egocentric reactions, while acknowledging assault as a problem, are often interpreted as putting the main focus of attention on the person giving reactions. Also, the lower loadings could reflect that egocentric reactions are less "negative." Although taking attention from the survivor is often seen as negative, egocentric reactions treat the assault and the perpetrator as the problems whereas distraction and control treat the assault and the survivor's distress as problems. Therefore, distraction and control may be more harmful. In support of this interpretation, items from the positive support scale that reflected nonjudgmental listening and not blaming had higher positive correlations with egocentric reactions ($r_s = .17-.29$) than with distraction ($r = .00-.16$) or with the three items from the control scale that loaded on UA ($r_s = -.04-.18$). So, items that show unsupportive acknowledgement may have different degrees of negativity.

Limitations, Cautions, and Research Recommendations

There are several limitations to the present study. First, as with all cross-sectional designs, directionality cannot be determined and may work in reverse. For instance, Dunkel-Schetter and Skokan (1990) stated that a survivor's maladaptive coping could lead to ineffective or inappropriate responses from others. We are in the process of a longitudinal study and hope to clarify some of the directional relationships over multiple waves of data. Also, the women were a volunteer sample who agreed to disclose again (through the phone screening and survey); so results may not be generalizable to women who experienced reactions that made them never wish to disclose again. Lastly, it should be noted that most items reflected functioning during the past year. Because assaults occurred on average 15 years prior to the study and reactions may have been given to survivors at any time since the assault, the effect of reactions on functioning is likely averaging across a wide range of years. Hopefully, this varying length of time between reactions and functioning mean that our results are conservative; however, it is not possible to know what factors occurred between reactions and past-year adjustment. Future research should assess for time between reactions and psychological adjustment.

There are also a few words of caution and potential limitations to performing factor analyses on the SRQ. The SRQ asks participants to record the reactions of other people. This focus on participants' perceptions is very useful for looking at how reactions have affected survivors, but perceptions and memories may not reflect accurate portrayals of others' actions. Thus, latent variables on the SRQ lose some of the ability to accurately assess the correlations between those behaviors. Also, it is not possible to determine how much variance in latent variables is due to participants' categorizations of others' behaviors and how much variance is reflective of the behaviors themselves. Lastly, latent variables take on a potentially different meaning when looking at aggregates of reactions from multiple people. Future studies should assess for the relationships between behaviors in the self-report responses of participants (although such self-reports of negative reactions would likely come with additional problems due to social desirability and impression management).

Given potential issues with factor analyses of the SRQ, we make a few recommendations for researchers who wish to perform their own factor analyses. First, future factor analysis of the SRQ should make sure to use two tiered models to account for primary and specific scales. Otherwise, simple models may produce misleading results. Second, as with all factor analysis, researchers should only perform new factor analyses or test different combinations of items if they have theoretical reason to do so. The current scales have been theoretically grounded in multiple qualitative and quantitative studies. Because of issues related to measuring perceptions of others' behaviors and with aggregating multiple people's behaviors, exploratory analyses will often yield slightly different results that may be artifacts; for these reasons then, such analyses should be heavily guided by theory. Third, because latent variables should be within-person traits, exploratory analysis on SRQs that allow people to aggregate the reactions from several people may produce misleading results. When possible, EFAs should be performed on SRQs where survivors answer one SRQ per disclosure recipient (see Ahrens, Stansell, & Jennings, 2010, for an example of acquiring multiple SRQs per participant). Although acquiring a full SRQ per support provider would be lengthy and require multilevel modeling, the process would enable researchers to see whether model fit varies based on the type of support provider. Fourth, SRQs that allow survivors to aggregate reactions from multiple people may still be subject to confirmatory analyses because model fit in our study was not affected by the number of people to whom survivors disclosed.

Our findings concerning the control subscale also have implications for research. Controlling reactions are some of the most studied reactions for sexual assault victims and have consistently been associated with negative outcomes (Campbell et al., 2001; Littleton & Breitkopf, 2006; Orchowski et al., 2013). In our study we found that the control subscale seems to contain both infantilizing responses and overt controlling responses. Notably, the infantilizing responses were more closely related to "turning against" reactions of blame and stigma than they were to unsupportive acknowledgment items. Conversely, directly controlling behavior seems more related to unsupportive acknowledgment items. Although both actions may take away control from the survivor, and the full subscale shows decent reliability across studies, the analyses here imply that infantilizing and controlling responses may have different associations. Future research should tease apart whether the more

negative aspects previously found with “control” have more to do with infantilizing or overtly controlling responses.

Practice Implications

Our findings have implications for interventions, such as bystander education programs, that seek to encourage community members to provide support for assault survivors. First, community wide education seems needed because the majority of survivors report experiencing negative reactions and several studies have shown that most survivors turn to informal sources (friends, family, etc.) for support more so than formal sources (Ullman, 2010). Second, the commonness of unsupportive acknowledgement (94%) shows a possible avenue for skill building, which clinicians can target with survivors and their informal social networks in various therapeutic settings (e.g., group, couples, and/or family therapy). People who acknowledge the assault but do not provide adequate support may already have the desire to help, but lack the skills to do so. Which skills (e.g., active listening, awareness of resources, distress management) would be the most helpful or effective remains unknown and should be assessed in future studies, preferably drawing on the knowledge and experience of clinicians and advocates who have the most experience working with survivors. On the other hand, it may be unrealistic in a brief program or brief therapy to expect those more likely to give overtly hostile reactions (e.g., blaming, stigmatizing) to change to providing emotionally supportive reactions. Although programs and therapists may certainly still promote the same skills for more hostile people, a more realistic outcome for such people may be to simply see less overtly hostile behavior.

Experimental research has already shown that it is possible to educate people to engage in fewer unsupportive reactions to disclosures of mistreatment (Foyne & Freyd, 2011). Future research should assess the reasons that people give certain kinds of reactions and examine whether trainings to give support have a differential impact based on the kinds of support people were likely to give prior to the program. Therefore, interventionists and clinicians may wish to know what kind of support (hostile or inadequate) that survivors receive to help survivors prepare for and cope with those reactions. Also, because many support providers may not feel they are being overtly hostile, it may be useful to advise support providers on the difference between truly helpful reactions and reactions that seem helpful, but have harmful effects (e.g., unsupportive acknowledgement).

Conclusion

Social reactions make a difference for women who disclose sexual assault. Our analyses support the distinction between more overtly negative reactions of turning against survivors (blaming/stigmatizing/infantilizing) versus reactions that may be well-intended and acknowledge the assault, but ultimately fail to provide support. Previous studies found that survivors differentiate these reactions. The present study helps validate these differences by providing needed psychometric evidence and showing that they are associated with different outcomes for survivors. Using these two different scales (turning against and unsupportive acknowledgement), rather than one negative reactions scale, should more accurately capture survivors' experiences and may lead to further understanding of how to help survivors.

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a) One general factor of Negative Reactions

b) Two primary factors

Figure 1.

Confirmatory factor models of negative reaction items from the Social Reactions Questionnaire (Ullman, 2000). Specific factors (i.e., SRQ subscales) are on the right side of both models. Item error variances and item intercorrelations not shown.

Table 1

Variation in Confirmatory Factor Analysis Model Fit of the SRQ Negative Subscales by the Number of People to Whom Disclosed

Number of People to Whom Disclosed	χ^2	IFI	CFI	RMSEA
1 to 2 ($n = 437$, 29%)	914.76	.85	.85	.07
3 ($n = 320$, 21%)	879.81	.85	.85	.08
4 to 5 ($n = 392$, 26%)	967.58	.87	.87	.08
>5 ($n = 377$, 25%)	816.24	.88	.88	.07

Note: Original SRQ negative subscales include blame, distract, control, egocentric, and stigmatization. The number of people to whom disclosed was divided by quartiles. All sub-factors were constrained to a variance of 1 and were allowed to correlate. Some items with similar wording were allowed to correlate in all models.

Table 2

Bivariate Correlations of Control Variables, Reactions, and Outcomes

Variable	TA	UA	POS	SLE	CSA	SES	TIME	Danger	Alcohol
Social Support and Adjustment									
Frequency of Social Contact	-.07**	.04	.19***	-.15***	-.07**	-.03	-.16***	-.05*	.03
Social Support Questionnaire	-.17***	-.04	.25***	-.13***	-.09***	-.04	-.00	-.05	.01
Depression – CESD-7	.26***	.29***	.06*	.33***	.21***	.16***	-.08***	.20***	-.03
PTSD – PDS	.36***	.44***	.15***	.38***	.29***	.22***	-.11***	.27***	-.06*
Characterological Self-Blame	.29***	.23***	-.03	.19***	.14***	.10***	-.13***	.12***	.06**
Refusal Assertiveness	-.12***	-.06*	.14***	-.11***	-.10***	-.05*	.00	.00	-.01
Coping Scales									
Maladaptive Coping	.35***	.41***	.06*	.31***	.30***	.15***	-.07***	.21***	.02
Positive Individual	.19***	.32***	.30***	.22***	.19***	.09***	.02	.17***	-.12***
Positive Interpersonal	.03	.21***	.42***	.03	.05	.03	-.08***	.09***	-.03
Reactions									
Turning Against	--	.65***	-.03	.29***	.19***	.11***	.01	.16***	.02
Unsupportive Acknowledgement		--	.38***	.35***	.28***	.15***	.02	.29***	-.07**
Positive Support			--	.14***	.14***	.13***	-.01	.21***	-.05

Note: $n = 1482-1826$. TA = Turning Against Reactions, UA = Unsupportive Acknowledgement Reactions, POS = Positive Supportive Reactions, SLE = Stressful Life Events Screening Questionnaire, CSA = Severity of Childhood Sexual Assault, SES = Severity of Adult Sexual Assault, TIME = Years between the assault and the current age, Danger = Did they feel their life was in danger during the assault, Alcohol = was the survivor drinking alcohol prior to the assault.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3
Linear Regressions for Predicting Social Support and Psychological and Behavioral Adjustment

	<i>T</i>	<i>B</i>	<i>SE B</i>	β	<i>R</i> ² Change
Frequency of Social Support					.05***
Turning Against	-2.63**	-.13	.05	-.11	
Unsupportive Acknowledgement	1.43	.09	.06	.06	
Positive Supportive Reactions	5.74***	.23	.04	.19	
Social Support Questionnaire					.08***
Turning Against	-2.26*	-.13	.06	-.09	
Unsupportive Acknowledgement	-.26	-.02	.07	-.01	
Positive Supportive Reactions	8.19***	.39	.05	.27	
Depression					.04***
Turning Against	1.94	.06	.03	.07	
Unsupportive Acknowledgement	3.68***	.14	.04	.15	
Positive Supportive Reactions	-2.05*	-.05	.03	-.06	
PTSD Symptomology					.07***
Turning Against	3.56***	1.81	.51	.13	
Unsupportive Acknowledgement	4.87***	3.10	.64	.20	
Positive Supportive Reactions	-.79	-.32	.40	-.02	
Characterological Self-Blame					.05***
Turning Against	3.93***	.16	.04	.16	
Unsupportive Acknowledgement	1.82	.10	.05	.08	
Positive Supportive Reactions	-3.33***	-.11	.03	-.11	
Sexual Refusal Assertiveness					.03***
Turning Against	-2.17*	-.10	.04	-.09	
Unsupportive Acknowledgement	.21	.01	.06	.01	
Positive Supportive Reactions	4.93***	.17	.04	.17	

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Note. In all regressions, the following variables (not shown) were entered as controls: Stressful Life Events Screening Questionnaire, Severity of Childhood Sexual Assault, Severity of Adult Sexual Assault, Years between the assault and the current age, Did they feel their life was in danger during the assault, and Was the survivor drinking alcohol prior to the assault. R^2 Change reflects the change from adding reactions variables to the control variables.

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

Table 4

Linear Regressions for Reactions Predicting Coping

	<i>T</i>	<i>B</i>	<i>SE B</i>	β	<i>R</i> ² Change
Maladaptive Coping					.08***
Turning Against	2.74**	.64	.23	.10	
Unsupportive Acknowledgement	5.97***	1.73	.29	.24	
Positive Supportive Reactions	-3.17**	-.59	.19	-.10	
Positive Individual Coping					.08***
Turning Against	1.40	.47	.34	.06	
Unsupportive Acknowledgement	3.23***	1.39	.43	.14	
Positive Supportive Reactions	6.23***	1.71	.27	.20	
Positive Interpersonal Coping					.17***
Turning Against	.12	.02	.16	.01	
Unsupportive Acknowledgement	1.19	.23	.20	.05	
Positive Supportive Reactions	12.80***	1.60	.13	.41	

Note. In all regressions, the following variables (not shown) were entered as controls: Stressful Life Events Screening Questionnaire, Severity of Childhood Sexual Assault, Severity of Adult Sexual Assault, Years between the assault and the current age, Did they feel their life was in danger during the assault, and Was the survivor drinking alcohol prior to the assault. *R*² Change reflects the change from adding reactions variables to the control variables.

* $p < .05$.

** $p < .01$.

*** $p < .001$.