

## The Impact of Sexual Assault History on Perceived Consequences of Risky Dating Scenarios

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### Abstract

Previous research demonstrates a history of sexual assault is a substantial risk factor for future sexual assaults [1, 2]. Several studies suggest differences in risk detection may contribute to this pattern [e.g., 3]. The purpose of this study was to investigate if sexual victimization impacts perception and response in dating scenarios; and assessed if differences existed between the perceived risk and benefits of remaining in risky interpersonal situations as a function of sexual assault history. One hundred and eleven female college students viewed and responded to two videos depicting dating vignettes. Results indicated participants did not differ in their perception of risk as a function of sexual assault history; however, those with a sexual assault history indicated they would stay in the situation longer in some instances. Additionally, when asked to predict what would happen if the scenario continued, participants with a history of sexual assault were significantly more likely to predict the characters would have consensual sex if the female remained and negative social consequences if she chose to leave. The potential clinical implications of these findings are discussed.

**Keywords:** Sexual assault; Repeat victimization; Risk detection; College students; Rape; Perception; Depression

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### Introduction

Sexual assault is a formidable problem in our society; approximately one in five women has been the victim of a completed or attempted rape [2, 4] with most involving a significant other or acquaintance [5, 6]. Further, most females reporting a history of rape indicated the first rape occurred before adulthood [2].

Survivors of childhood sexual assault (CSA) are at particular increased risk for adult sexual assault (ASA) [7-9]. In fact, several studies suggest a history of CSA is the best predictor of ASA [10, 11]. A comprehensive review suggests on average, one-third of women with a history of CSA will be reassaulted [1]. Research on the psychological impact of repeat sexual assault has shown, compared to single event victimization, multiple incidents are associated with higher levels of posttraumatic stress disorder (PTSD), anxiety, depression, anger, dissociation, and somatic symptoms [1,7].

One theory regarding high rates of revictimization suggests the

relationship may be partially explained by differences in threat recognition. To test this hypothesis, several studies used dating/sexual encounter vignettes to compare risk perception and response by women with and without sexual assault histories [3, 12-19]. This research demonstrated women with a sexual assault history (SAH) take longer to identify and respond to risk [3, 16, 18]. However, each of these studies utilized the same audiotaped vignette, originally created and produced by Marx and Gross [20], with college students and relied on similar methodology to determine risk perception and response. Specifically, participants were asked to push a button to indicate when they thought the male in the vignette "had gone too far." The amount of time that elapsed from the beginning of the vignette until the participant responded served as the measure of threat recognition. Yet when the same vignette and methodology were used in a community sample, a difference in response time was not found [13]. However, an additional study that did not rely on response time as a measure, it was shown that women with a history of assault required greater levels of risk to be present in the vignette before they indicated that they felt uncomfortable [19].

In contrast, in some studies where participants directly to rate the amount of risk [15, 17], SAH was not predictive of differences in risk detection. In fact, in one study, women with a SAH rated each of the scenes as being more risky than did women without a SAH [15]. Yet, it was also more likely they would be compliant with the male's request in the situation, which would often place them in a position of objectively higher risk. Similarly, additional research found participants with a SAH were more likely to estimate they would respond in a less assertive manner [17, 21].

Taken together, these studies suggest a history of sexual assault may lead or be related to poor risk recognition and behavioral skill deficits. However, methodological problems and confounds limit these conclusions. For instance, the speed at which women with and without a SAH respond (i.e., how long they stay in the scene) is a primary difference reported in the literature. However, no studies to-date have controlled for depressive symptoms, which are common in sexual assault survivors [22, 23] and are related to psychomotor slowing [24] and slower processing speed [25]. Similarly, a recent study utilized a written vignette and replicated the finding that women with a SAH left later in the scene [26]. However, their data suggested aspects of emotion regulation contributed to this finding, as difficulty with emotion regulation was related to leaving later in the vignette. As such, previously reported differences in response time may be related to additional symptomology related to a SAH, rather than a decrease in threat recognition.

Further, previous research suggests some women with a SAH may fail to respond to threats effectively. Investigators have theorized this may be associated with behavioral deficits or perceptual differences. For instance, a recent article demonstrated CSA history was related to low perceived control in sexual situations and was indirectly related to increased risk of sexual assault in the context of substance use, through increased risky sexual behavior and differences in alcohol related expectancies [27]. Others posit that some women with a SAH may be more compliant and less active in their resistance as a consequence of differences in perceived social benefits in the situation (e.g., attention, affection), or as Naugle [15] suggested, differences in the perceived social consequences if they refuse to comply. Similarly, in a sample of women who had been sexually assaulted by a known acquaintance, it was shown that both concerns about danger, as well as concerns about intimacy and relationships were related to behavioral responses [28]. Thus, several unstudied variables remain that could explain differences in participant responses.

The current research replicates and extends previous studies. It replicated risk perception and response time using similar methodology to previous studies with established vignette scripts. Additionally, it added to foundational work through exploring potential reasons for differential behavioral responses, such as perceived benefits to staying and potential consequences of leaving the situation. Further, this study aimed to clarify the relationship between risk detection and response time while controlling for the potential contribution of depression symptoms. Based on the previous literature, it was hypothesized that there would be significant difference in regards to response latencies based on sexual assault history, but that these would not directly relate to difference in perceived risk. Further, it was theorized that

differences in perceived benefits and risks would emerge based on sexual assault history.

## Method

### Participants

Participants were female college students at a Midwestern university. A random sample of 2503 e-mail addresses of current students was obtained from the Information Technology Department. Over 300 ( $n=339$ , 13.5%) participants completed the initial screening phase of the study. Their ages ranged from under 18 to 62 years of age with an average age of 24.4 ( $SD=7.7$ ). The initial sample was primarily Caucasian (82.2%) and single, but in a romantic relationship that did not include living together (42%). A total of 111 participants completed both phases of the study. Demographic characteristics of study completers are provided in (Table 1).

### Measures

**Demographic Questionnaire:** Participants completed a demographic questionnaire that inquired about a variety of characteristics including age, race, sexual orientation, previous sexual activity, and current relationship status.

**Sexual Experience Survey (SES):** The SES [29, 30] consists of 10 "yes" or "no" questions about different degrees and experiences of sexual victimization, including attempted sexual assaults. The SES was used to assess for SAH occurring at 14 years or older. Previous research has proposed severity cut-offs for this scale, dividing types of assaults into moderate and severe categories [31]. Moderate events in adulthood included pressured or forced fondling, kissing, or petting (but not intercourse), as well as intercourse that results from coercion, but not physical force. Severe events were reports of attempted or completed rapes that involved physical force or the threat of physical force.

**Childhood Sexual Abuse Questionnaire (CSAQ):** The CSAQ [32] consists of six "yes" or "no" items addressing various types of sexual assault experiences. The scale was developed to assess for both childhood and adult sexual assault but was used only as a childhood measure (events occurring prior to the age of 14) in this study. This scale possesses strong convergent validity with interview measures [32]. In regard to severity, previous research has classified participants who endorse only acts of exposure and/or touching during childhood as moderate, while threatened or completed intercourse has been classified as severe [31].

**Patient Health Questionnaire-9 (PHQ-9):** The PHQ-9 is a self-report screener of general depressive symptoms over the past two weeks [33]. This study utilized the total symptom score, with higher totals representing greater levels of depression. This scale has demonstrated good reliability and validity [33].

**Vignette Rating Questionnaire-Modified (VRQM):** The original questionnaire, developed by Naugle [15], consists of 10 items answered on Likert-type rating scales. Each item, except for the first item (realism of the vignette on a 1 to 5 scale), is on a 1 to 8 scale. Items asked participants to rate characteristics of the vignette including: how realistic the vignette was, the amount of risk they perceived in the scene, the potential for interpersonal

**Table 1** Demographic Characteristics and Differences between SAH and NSAH Groups.

Variable	Full Sample (N=111)	SAH (n=61)	NSAH (n=50)	Between-Group Differences
Age	20.7 (2)	21 (2)	20 (2)	$F = 5.992$ $(p = 0.016)^a$
Caucasian	92 (83%)	49 (80%)	43 (86%)	$\chi^2 = 0.623$ $(p = 0.43)^b$
Romantic Partnership	75 (69%)	43 (72%)	32 (65%)	$\chi^2 = 0.508$ $(p = 0.306)^b$
Time in Relationship				
No Relationship	33 (30%)	17 (28%)	11 (22%)	$Z = -0.082$
> Year	27 (24%)	16 (26%)	23 (46%)	$(p = 0.934)^c$
< Year	51 (46%)	28 (46%)		
Sexual Attraction				
Men Only	87 (78%)	45 (74%)	42 (84%)	$\chi^2 = 1.697$ $(p = 0.193)^b$
Men and Women	24 (22%)	16 (26%)	8 (16%)	
Sexual Activity				
Men Only	75 (67%)	49 (80%)	26 (52%)	$FET = 2.87$
Men and Women	15 (14%)	11 (18%)	4 (8%)	$(p < 0.001)^d$
Never Active	21 (19%)	1(2%)	20 (40%)	

Note: Data are presented as Mean (SD) for age and n (%) for all other variables. a=ANOVA (df=1,109); b=chi-square (df=1); c=Mann Whitney U (df=2); d=Fisher's exact test, Freeman-Halton extension (df=5), used in case of analysis with fewer than five observations per cell. p-values listed in bold are significant at a  $p < .05$  level.

benefits for the female character (e.g., relationship), how supportive they believed the male in the video was, the amount of social pressure involved in the scenario, their level of discomfort, anxiety, and arousal while watching the video, and finally their level of romantic interest in the male in the video. For each of the Likert items 1= "extremely" and the highest value = "not at all." For instance, on the item regarding potential risk, 1= "extremely risky" and 8= "not at all risky."

Additional items were added to this measure to aid in testing the hypothesis for this study and as part of a larger study. Specifically, an item regarding the amount of perceived control over the outcome for the male and female character was added and two items related to dissociation were included. The two questions regarding dissociation were taken from the Dissociative Experiences Scale (DES) [34], a validated measure of dissociation. Finally, two more items were added to each of the vignette-rating questionnaires. These items related to what the participant viewed would happen if they chose to stay in the situation, and what they believed would happen if they left. Several potential options were given and the participant was asked to check all of the items they believed applied. Choices encompassed a range of options that were negative, positive, or neutral in nature [1].

The VRQM was the primary measure used to assess the participants' evaluation of the vignettes, as well as assess differences in behavioral responses and perceived consequences and rewards for those responses. For all analyses, the risk rating refers to the participant's response to the Likert item regarding risk on this questionnaire.

## Materials and Technology

This Internet-based study was completed in two phases. The first phase included completion of the demographic questionnaire, the SES, and the CSAQ, deployed from a secure site, SurveyMonkey™. Phase 2 was conducted from the university's main network, within

an Internet-based program. This program had the capability to concurrently run a video vignette and record ongoing time, yielding a response time measure. Phase 2 involved reviewing the video vignettes and completing additional surveys.

**Video Vignettes:** Two videos were produced with scripts derived from vignettes used in previous studies. Specifically, Video A was based on an audio vignette by Marx et al. [3] and revolved around an individual male and female who are returning to the male's apartment following a date. While there are no direct references to how long they have been dating, it is implied that it is early on in their relationship, though not their first date Video B was adapted from a written vignette originally developed by Messman-Moore and Brown [14]. In this vignette, the main female and male characters are at a party given by mutual friends. They have met before but are not dating.

Some modifications were made to the original scripts for both vignettes. Specifically, scenes were edited to end prior to the rape to reduce potential hindsight biases in terms of risk perception and allow the scene to end ambiguously. All aspects of the original vignette were included in the same order; however, more time was spent in the beginning of Video B depicting the male and female talking at a party. In general, this phase of the vignette was low risk, with the exception of an instance during which the male leaves the room and returns with an alcoholic drink for the female character. Additionally, the party in the second video was a small house party, rather than a larger college party depicted in the written vignette. The Marx et al.-based script (Video A) had a running time of 181 seconds, and the Messman-Moore and Brown- based video (B) was 441 seconds.

## Procedures

Researchers sent randomly selected female students an e-mail describing the study, including a link to the initial screening materials. The consent form indicated participants would be

asked about SAH, but to reduce potential response bias, none of the recruitment materials or consent highlighted this variable.

**Exclusionary Criteria:** Phase 1 participants were ineligible for Phase 2 if any of the following three conditions were met during Phase 1:

Their sexual assault category was already full ( $n=30$ ). Up to 60 participants were allowed in each of the two primary categories (i.e., SAH or no SAH).

They were not between the ages of 18 and 25 ( $n=100$ ). An upper age restriction was used to restrict potential variance that may have impacted the ratings of the vignettes.

They indicated only lesbian attraction/activity on the demographic questionnaire ( $n=7$ ). Restrictions were made regarding sexual orientation because the vignettes used in this study only displayed heterosexual couples interacting and some of the vignette questions asked about attraction and romantic interest in the male character.

## Defining of Groups/Randomization Procedure

**Phase 2:** Prior to beginning Phase 2, participants were categorized as having a SAH if they endorsed any item on the CSAQ or the SES (SAH Participants,  $n=61$ ; No SAH Participants, NSAH,  $n=50$ ). While data were obtained regarding the severity and time of sexual assault (e.g., childhood, adolescence/adulthood), the sexual assault groups were collapsed for all analyses as the number in each of these subcategories was insufficient for statistical power.

Participants viewed both videos, presented in counterbalanced order. Following each video, participants completed the VRQM. Participants completed the PHQ-9 after the second video was viewed.

## Results

Demographic data were examined for potential differences between groups of completers, and some differences did emerge. Specifically, there were significant differences between the sexual assault groups (SAH vs. NSAH) on age and sexual activity (**Table 1**) with participants in the NSAH group being younger, more likely to report never having been sexually active, and less likely to have a history of sexual activity with women. Older participants rated the belief the man would spend a lot of time/effort attempting to convince the woman to have sex,  $F(1,109)=4.09$ ,  $p=0.046$ , significantly higher after watching Video A. Age was not significantly related to risk ratings or latency. Sexual history was significantly related to beliefs that "You would talk to the male and he would back off" (Video A:  $\chi^2(2)=1.52$ ,  $p=0.005$ ) and that the male, "Might tell others and they might think badly of you" (Video B:  $\chi^2(2)=7.2$ ,  $p=0.027$ ). There were no additional significant relationships between demographic and outcome variables.

Information regarding the severity and time of sexual assault was examined using the severity guidelines described in the methods section. Of the 61 participants with a SAH, 43% indicated at least one event that would classify as a severe sexual assault. Further,

80.77% of participants who reported CSA reported an additional sexual assault in adolescence/adulthood. For the purposes of this report, the SAH group was not subdivided by severity or developmental period.

Collapsing across groups, we examined the average amount of time participants took to respond and the percentage of participants who chose to end the video (indicating the male had gone too far), Video A ( $M = 151$  seconds,  $SD = 41$ ), Video B ( $M = 416$ ,  $SD = 50$ ). Most participants never discontinued either vignette, with 57.7% and 68.5% of participants watching the full Video A and B, respectively. Regarding the decision to terminate either video, chi-square analyses failed to detect significant differences between groups for either video (**Table 2**).

One-way ANOVAs were conducted comparing the length of time participants continued to watch the scene based on SAH. A significant difference was found in response latencies Video A, with participants in the SAH group taking significantly longer to respond (**Table 2**) than those with NSAH,  $F(1,109)=7.16$ ,  $p=0.009$ . However, this finding was not observed when contrasting latencies for Video B,  $F(1,109)=1.02$ ,  $p=0.31$ .

A bivariate correlation matrix was inspected for relationships between level of depression, response latency, and risk ratings (**Table 3**). A significant positive relationship was found between response latencies to Videos A and B,  $r(109) = 0.21$ ,  $p = 0.026$ , and between risk ratings for the two videos,  $r(109) = 0.25$ ,  $p=0.007$ . However, there was no significant relationship between latency and risk for either video nor was there a significant relationship between depressive symptoms and latency. There was a significant relationship between depression level and risk rating for Video B,  $r(109) = 0.22$ ,  $p=0.024$ , but not for Video A.

Repeated-measure GLM analyses indicated that, overall, participants viewed Vignette B as more risky,  $F(1,109) = 13.09$ ,  $p < 0.001$ , and more realistic,  $F(1,109) = 12.52$ ,  $p=0.001$ , than Vignette A. They also viewed this scene as having more potential for interpersonal benefits,  $F(1) = 19.56$ ,  $p < 0.001$ , and they rated the male as more supportive,  $F(1,109) = 88.29$ ,  $p < 0.001$ . Finally, participants were significantly more uncomfortable with Video A,  $F(1,109) = 6.98$ ,  $p=0.009$ , and they reported greater absorption into Video B, ( $F(1,109)=4.38$ ,  $p=0.038$ ) (**Table 4**).

One-way ANOVAs revealed no sexual assault group differences in descriptive and experiential (i.e., perceived risk, realism, anxiety) ratings related to the two vignettes, but the SAH group reported significantly less absorption into Video A,  $F(1,109) = 5.473$ ,  $p=0.021$  (**Table 5**).

One-way ANOVA did not detect significant group differences in the number of total perceived outcomes identified for either video. For Video A, the SAH group selected an average of 6.1 ( $SD=1.2$ ) potential outcomes to remaining the situation in contrast to 6.3 ( $SD=0.8$ ) identified for the NSAH group,  $F(1,109)=1.009$ ,  $p=0.317$ . Similarly, the SAH group identified an average of 4.2 ( $SD=1$ ) consequences for leaving the scene compared to the NSAH group mean of 4.4 ( $SD=0.8$ ;  $F(1,109) = 1.391$ ,  $p=0.243$ ). No differences were noted in the number of estimated consequences for leaving,  $F(1,109) = 2.176$ ,  $p=0.143$

**Table 2** Between-Group Differences in Response Latencies and Video Discontinuation.

Response Latency	Full Sample M (SD)	SAH (n=61) M (SD)	NSAH (n=50) M(SD)	F	p
Video A	151 (41)	160 (34)	139 (47)	7.162	<b>0.009</b>
Video B	416 (50)	421 (48)	411 (52)	1.023	0.314
Video Completion	Full Sample N (%)	SAH n (%)	NSAH n (%)	$\chi^2$	p
Video A Completed Discontinued	64 (58%) 47 (42%)	39 (64%) 22 (36%)	25 (50%) 25 (50%)	2.185	0.139
Video B Completed Discontinued	76 (68%) 35 (32%)	46 (75%) 15 (25%)	30 (60%) 20 (40%)	3.022	0.082

Note: SAH= Sexual Assault History group; NSAH=No Sexual Assault History group. p-values listed in bold are significant at a p<.05 level.

**Table 3** Pearson Product Bivariate Correlations for Latency, Risk, and Psychological Variables.

		1.	2.	3.	4.	5.
1.	Time (A)	~~	0.21*	-0.18	0.01	-0.13
2.	Time (B)		~~	-0.01	0.04	0.08
3.	Risk (A)			~~	0.25**	0.06
4.	Risk (B)				~~	0.22*
5.	Depression					~~

Note: Time (A)=response latency for vignette A. Time (B)=response latency for vignette B. The sign of the correlation for relationship with the risk variables (A and B) were reversed so that each measure was coded in the same direction. A positive correlation indicates that as the perception of risk went up, so did the other variable. \* p <.05, \*\* p .01.

or remaining in the situation,  $F(1,109) = 0.894, p = 0.346$  for Video B.

However, at the item level, some between-group differences emerged (**Table 6**). A significantly greater percentage of participants with a SAH (30% after Video A; 25% after Video B) than those without (10% after Video A; 8% after Video B) believed the male and female would have consensual sex if the female remained in each scenario,  $\chi^2(1,109) = 6.37, p = 0.012$ . Further, after Video A, the SAH group (39%) was significantly more likely than the NSAH group (22%) to indicate leaving the scene would result in the male telling others and that they would think badly of her,  $\chi^2(1,109) = 3.83, p = 0.05$ .

## Discussion

Results can be viewed as both a replication and extension of the previous research on risk detection and revictimization. In line with abundant research demonstrating a pattern of repeat victimization, we found approximately 1/3 of respondents with a CSA history also reported sexual victimization in adolescence/adulthood. Additionally, consistent with earlier research, for Video A, women with a SAH took significantly longer to indicate they would leave the scene. However, a significant difference was not found with the second video.

While previous work theorized differences reflected a deficit in

risk detection, the current study did not find support for this hypothesis. This is particularly noteworthy given the scripts used for the videos have been used in previous works supporting this theory. However, in this study participants were directly asked to rate the level of risk, where in previous cases this was often inferred from the latency measure. Results from this study are consistent with the conclusions of Naugle [15], which also failed to reveal differences in risk ratings when directly assessed.

To summarize, findings from this study showed while women with a SAH took longer to respond in some cases, they viewed the scenes similarly in terms of overall risk. This suggests response time on its own, should not be considered equivalent to risk assessment. It is the case; risk objectively increases throughout both vignettes. Consequently, the distinction between latencies and risk ratings may reflect participants who watched a greater portion of the vignettes were exposed to aspects of the scene that were more unsafe. However, a significant relationship between risk ratings and response latencies was not found, suggesting this explanation is unlikely. Rather, the lack of consistency between latency and risk is more likely indicative response latency, as used in this study and previous studies like it, is not the measure of risk it was originally hypothesized to be. Instead, it may be a more complex decision-making measure.

Our findings suggest factors other than risk detection may relate to longer latencies or delays in responding to threats. Specifically, although women with a SAH did not endorse a greater number of potential outcomes for remaining in or choosing to leave the scenario, significant differences in types of anticipated outcomes did emerge. In particular, participants with a SAH were significantly more likely to predict that the male and female would have consensual sex if the female remained in either scenario. They were also, in response to one vignette, significantly more likely to indicate the male might tell others and think badly of her if she left the scene. Such differences in perceived outcomes may impact the way in which a person responds in a situation. The impact of these differences cannot be fully explored in this study, however, as it is unknown if participants were considering these outcomes as they were watching the vignettes or if they were only considered as a result of the subsequent questions.

**Table 4** Descriptive and Experiential Rating Contrasts of Video A and B (N=111).

Rating	Video A	Video B	F	p
Realism	2.5 (1.0)	2.12 (0.9)	12.52	0.001
Risk	3.84 (1.6)	3.2 (1.4)	13.09	<0.001
Interpersonal Benefit	5.43 (1.6)	4.47 (1.7)	19.55	<0.001
Support	6.55 (1.5)	4.59 (1.9)	88.29	<0.001
Social Pressure	3.24 (1.8)	3.43 (1.5)	0.857	0.357
Discomfort	4.42 (2.0)	4.96 (1.9)	6.977	0.009
Anxiety	4.87 (2.1)	5.17 (1.9)	1.987	0.162
Arousal	7.59 (1.0)	7.75 (0.7)	2.797	0.097
Romantic Interest	7.53 (1.1)	7.51 (1.0)	0.022	0.883
Female Control	3.76 (0.7)	3.65 (0.8)	1.478	0.227
Male Control	3.09 (0.8)	3.13 (0.9)	0.150	0.700
Dissociation 1 (zoning out)	2.88 (10.5)	5.05 (14.3)	2.657	0.106
Dissociation 2 (absorption)	12.91 (27.1)	17.64 (29.1)	4.397	0.038

Note: Data are presented as Mean (SD) for all variables.

However, it does lend some support to theories [e.g., 35] suggesting potential reinforcers (e.g., consensual sex, avoiding negative social consequences) may play a role in responses.

## Limitations

Findings should be considered in light of some limitations. Primary, SAH analyses combined any prior adverse experience into one group. It is possible results may differ if only participants with a history of repeat victimization are considered. Additionally, while the vignette method is commonly used in this type of research, it cannot be assumed to be analogous with real world situations. As such, the generalizability of the findings is unknown. While the current study utilized scripts that have been previously investigated as the basis for our vignette, it is possible the alterations (e.g., where the videos ended), may have contributed to the outcomes. Similarly, while several differences were noted on the VRQM, the fact participants completed this after the video makes it impossible to know if these differences were present while watching the vignettes or if they had an impact on whether or when the participant chose to stop the video.

Additionally, some demographic differences between groups were noted (age and history of sexual activity) that might have confounded results. Differences were not shown to be significantly related to risk or latency, however, they cannot be completely controlled for. Finally, regarding response rate to e-mail solicitations, it is possible some selection biases were present as people who chose to open and respond to the e-mail may be significantly different from those who did not. However, means of reducing sample bias were used in this study; including the fact the students who received the initial e-mail represented a truly random sample of all female students enrolled at the university.

## Research and Clinical Implications

While these limitations restrict some of the conclusions that can be drawn, several findings raise interesting questions warranting further exploration. In particular, the differences between vignettes suggest it may be important to examine how social or contextual factors impact decision making and behavioral responses

in risky situations, as well as how these factors might interact with psychological variables. For instance, in Video A, the script suggests that the couple has been on more than one date, while the male and female in Video B are introduced for the first time in the scene. It is possible that factors, such as the amount of time the male and female have known each other, may impact the perception of risk or influence the predicted consequences for staying or leaving the scene. However, future studies are needed to examine this hypothesis as well as the potential impact of other contextual variables.

Additionally, given our finding that response latencies and risk assessments did not appear to be related, future studies exploring factors that may be contributing to responses latency are warranted, as latency differences have been replicated on multiple occasions. However, these results caution against assuming that this is a measure of risk detection. Finally, given group differences in perceived outcomes of different behavioral responses (staying or leaving) were identified, a better understanding of how these perceptions impact decision-making and actual responses would be beneficial. Specifically, results provided preliminary evidence women with a SAH may estimate certain potential consequences of remaining in the environment differently.

These findings have significant clinical implications. In particular, the results suggest prevention efforts should not be focused solely on teaching women about risk detection, but should also focus on developing assertive behavioral responses that can help them to remain safe. Results from this study provide some initial evidence suggesting women with a SAH may view situations differently in regards to potential positive consequences of staying in a situation in spite of risk, as well as what they might miss if they choose to leave. While this is a preliminary finding, it may have important implications in regard to understanding why participants with a SAH tend to stay in risky situations longer, even when they recognize the danger. It also suggests other potential avenues for therapy, including focusing on ways to set appropriate boundaries in relationships and get emotional needs met in safe and secure ways.

**Table 5** Ratings for Vignettes; Participants with a Sexual Assault History (SAH) vs. Participants with No Sexual Assault History (NSAH).

	SAH	NSAH	F	p
<b>Realism Rating</b>				
Video A	2.43 (1.0)	2.60 (1.0)	0.86	0.355
Video B	2.02 (0.9)	2.24 (0.9)	1.66	0.200
<b>Risk Rating</b>				
Video A	3.92 (1.6)	3.74 (1.6)	0.34	0.563
Video B	3.07 (1.6)	3.36 (1.3)	1.15	0.285
<b>Interpersonal Benefit Rating</b>				
Video A	5.34 (1.7)	5.54 (1.6)	0.39	0.536
Video B	4.38 (1.7)	4.58 (1.6)	0.41	0.526
<b>Support Rating</b>				
Video A	6.68 (1.4)	6.38 (1.6)	1.06	0.305
Video B	4.59 (2.0)	4.58 (1.7)	0.00	0.977
<b>Social Pressure Rating</b>				
Video A	3.24 (1.9)	3.24 (1.7)	0.00	0.982
Video B	3.39 (1.6)	3.54 (1.4)	0.27	0.608
<b>Discomfort Rating</b>				
Video A	4.38 (2.1)	4.46 (1.9)	0.04	0.841
Video B	4.74 (1.9)	5.22 (1.9)	1.81	0.181
<b>Anxiety Rating</b>				
Video A	4.93 (2.1)	4.8 (2.0)	0.12	0.734
Video B	5.15 (2.1)	5.2 (1.8)	0.20	0.888
	SAH	NSAH	F	p
<b>Arousal Rating</b>				
Video A	7.69 (0.7)	7.48 (1.3)	1.23	0.269
Video B	7.77 (0.6)	7.71 (0.8)	0.17	0.682
<b>Romantic Interest Rating</b>				
Video A	7.46 (1.2)	7.62 (0.9)	0.64	0.425
Video B	7.44 (1.0)	7.6 (0.9)	0.73	0.393
<b>Female Control</b>				
Video A	3.82 (0.8)	3.72 (0.5)	0.58	0.447
Video B	3.67 (0.9)	3.64 (0.8)	0.03	0.869
<b>Male Control</b>				
Video A	3.08 (0.8)	3.08 (0.8)	0.00	0.983
Video B	3.08 (1.0)	3.2 (0.8)	0.46	0.498
<b>Dissociation Rating 1 (zoning out)</b>				
Video A	3.28 (12.1)	2.4 (8.2)	0.19	0.662
Video B	4.75 (12.6)	5.4 (16.2)	0.06	0.814
<b>Dissociation Rating 2 (absorbed into video)</b>				
Video A	7.5 (20.0)	19.4 (32.8)	5.47	0.021*
Video B	13.61 (26.3)	22.2 (31.6)	2.45	0.120

Notes: Data are presented as Mean (SD) for all variables. The scale for Realism is between 1 and 5. Lower scores represent a higher degree of realism (1= entirely realistic, 5= not at all realistic). Ratings from Risk to Romantic Interest were rated on an 8 point scale. On these scales 1= extremely and 8= not at all. Items related to Control were rated on a 5 point scale where 1= none of the control, and 5= all of the control. Dissociation items were answered in terms of percentage of time (0-100) on 10 point intervals (e.g., 0, 10, 20). A higher percentage indicated a greater period of time when the person experienced the symptom. \*= significant at  $p < 0.05$  level. Running these as ordinal-level variables made no difference in outcomes.

## Conclusion

In conclusion, this study adds to the literature on revictimization by exploring possible reasons for differences in behavioral responses to risk in dating scenario. Results from this study suggest a SAH is not related to poorer risk detection, but may be related to

differences in responses, potentially as a result of differences in the perceived benefits to staying and potential consequences of leaving the situation. As such, these perceived consequences maybe important variables to consider in attempting reducing future risk.

**Table 6** Between-Group Comparisons of Predicted Consequences for Staying or Leaving the Scene.

If the female remains:	$\chi^2$ (FET)	SAH %	NSAH %	p
They would have a good time.				
Video A	FET	3%	0%	0.5
Video B	0.01	11%	12%	0.932
There would be an argument.				
Video A	0.00	64%	64%	0.994
Video B	0.07	34%	32%	0.787
They would talk and the male would back off.				
Video A	2.95	21%	36%	0.086
Video B	0.15	34%	38%	0.696
Male would try to convince her to have sex.				
Video A	0.61	33%	26%	0.436
Video B	0.1	33%	30%	0.753
A meaningful relationship would develop.				
Video A	FET	3%	2%	1.0
Video B	FET	10%	2%	0.126
They would have consensual sex.				
Video A	6.37	30%	10%	0.012*
Video B	5.33	25%	8%	0.021*
Male would force her to have sex.				
Video A	2.22	28%	16%	0.136
Video B	1.77	31%	20%	0.183
Other				
Video A	FET	7%	14%	0.217
Video B	1.54	11%	20%	0.215
If the female leaves:	$\chi^2$ (FET)	SAH %	NSAH %	p
Nothing				
Video A	0.5	28%	22%	0.479
Video B	0.11	51%	52%	0.849
Male might tell others and they would think badly of her.				
Video A	3.83	39%	22%	0.05*
Video B	0.41	23%	18%	0.552
Female would find someone else to date.				
Video A	0.14	77%	80%	0.707
Video B	0.18	64%	60%	0.671
If the female leaves:	$\chi^2$ (FET)	SAH %	NSAH%	p
Female would be alone for a long time.				
Video A	0.56	15%	10%	0.453
Video B	FET	7%	8%	1.0
Female would miss out on a meaningful relationship.				
Video A	FET	8%	2%	0.156
Video B	FET	11%	2%	0.071
Other				
Video A	2.2	13%	24%	0.138
Video B	0.18	15%	12%	0.673

Note: SAH=participants with a sexual assault history. NSAH=participants with no sexual assault history. Percentages denote the endorsement of the consequences as a likely outcome of staying or leaving. FET=Fisher's exact test was utilized in cases in which cells included fewer than five responses. \*=significant at  $p \leq 0.05$  level.



## References

- 1 Arata CM (2002) Child sexual abuse and sexual revictimization. *Clinical Psychology: Science and Practice* 9:135-164.
- 2 Tjaden P, Thoennes N (2000) Full report of the prevalence, incidence, and consequences of violence against women: Findings from the national violence against women survey. Washington, DC: U.S. Department of Justice, National Institute of Justice NCJ Publication No. 183781.
- 3 Marx BP, Calhoun KS, Wilson AE, Myerson LA (2001) Sexual revictimization prevention: An outcome evaluation. *Journal of Consulting and Clinical Psychology* 69:25-32.
- 4 Brener ND, McMahon PM, Warren CW, Douglas KA (1999) Forced sexual intercourse and associated health-risk behaviors among female college students in the United States. *Journal of Consulting and Clinical Psychology* 67:252-259.
- 5 Catalano SM (2004) Criminal Victimization, 2003. National Crime Victimization Survey.
- 6 Fisher BS, Cullen FT, Turner MG (2000) The sexual victimization of college women. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics and National Institute of Justice NCJ 182369.
- 7 Messman-Moore TL, Long PJ, Siegfried NJ (2000) The revictimization of child sexual abuse survivors: An examination of the adjustment of college women with child sexual abuse, adult sexual assault, and adult physical abuse. *Child Maltreatment* 5:18-27.
- 8 Orcutt HK, Cooper ML, Garcia M (2005) Use of sexual intercourse to reduce negative affect as a prospective mediator of sexual revictimization. *Journal of Traumatic Stress* 18:729-739.
- 9 Roodman AA, Clum GA (2001) Revictimization rates and method variance: A meta-analysis. *Clinical Psychology Review* 21:183-204.
- 10 Gidycz CA, Coble CN, Latham L, Layman MJ (1993) Sexual assault experiences in adulthood and prior victimization experiences. *Psychology of Women Quarterly* 17:151-168.
- 11 Messman TL, Long PJ (1996) Child sexual abuse and its relationship to revictimization in adult women: A review. *Clinical Psychology Review* 16:397-420.
- 12 Breitenbecher KH (1999) The association between perception of threat in a dating situation and sexual victimization. *Violence and Victims* 14:135-146.
- 13 Chu AT, DePrince AP, Mauss IB (2014) Exploring revictimization risk in a community sample of sexual assault survivors. *Journal of Trauma & Dissociation* 15:319-331.
- 14 Messman-Moore TL, Brown AL (2006) Risk perception, rape, and sexual revictimization: A prospective study of college women. *Psychology of Women Quarterly* 30:159-172.
- 15 Naugle AE (1999) Identifying behavioral risk factors for repeated victimization using video-taped stimulus materials. Unpublished doctoral dissertation, University of Nevada, Reno.
- 16 Soler-Baillo JM, Marx BP, Sloan DM (2005) The psychophysiological correlates of risk recognition among victims and non-victims of sexual assault. *Behavioral Research and Therapy* 43: 169-181.
- 17 VanZile-Tamsen C, Testa M, Livingston JA (2005) The impact of sexual assault history and relationship context on appraisal of and responses to acquaintance sexual assault risk. *Journal of Interpersonal Violence* 20:813-832.
- 18 Wilson AE, Calhoun KS, Bernat JA (1999) Risk recognition and trauma-related symptoms among sexually revictimized women. *Journal of Consulting and Clinical Psychology* 67:705-710.
- 19 Norris J, Nurius PS, Graham TL (1999) When a date changes from fun to dangerous: Factors affecting women's ability to distinguish. *Violence Against Women* 5:230-250.
- 20 Marx BP, Gross AL (1995) Date Rape: An analysis of two contextual variables. *Behavior Modification* 19:451-463.
- 21 Stoner SA, Norris J, George WH, Davis KC, Masters T, et al. (2007) Effects of alcohol intoxication and victimization history on women's sexual assault resistance intentions: The role of secondary cognitive appraisal. *Psychology of Women Quarterly* 31:344-356.
- 22 Hedtke KA, Riggiero KJ, Fitzgerald MM, Zinzow HM, Saunders BE, et al. (2008) A longitudinal investigation of interpersonal violence in relation to mental health and substance use. *Journal of Consulting and Clinical Psychology* 76:633-647.
- 23 Resick PA (1993) The psychological impact of rape. *Journal of Interpersonal Violence* 8:223-255.
- 24 White DA, Myerson J, Hale S (1997) How cognitive is psychomotor slowing in depression? Evidence from a meta-analysis. *Aging, Neuropsychology, and Cognition. Special Issue: Comparative Adult Cognition* 4:166-174.
- 25 Favre T, Hughes C, Emslie G, Stavinoha P, Kennard B, et al. (2009) Executive functioning in children and adolescents with major depressive disorder. *Child Neuropsychology* 15:85-98.
- 26 Walsh K, DiLillo D, Messman-Moore T (2012) Lifetime sexual victimization and poor risk perception: Does emotion dysregulation account for the links? *Journal of Interpersonal Violence* 27: 3054-3071.
- 27 Walsh K, Messman-Moore T, Zerubavel N, Chandley RB, DeNardi K, et al. (2013) Perceived sexual control, sex-related alcohol expectancies and behavior predict substance-related sexual revictimization. *Child Abuse & Neglect* 37:353-359.
- 28 Nurius PS, Norris J, Macy RJ and Huang B (2004) Women's situational coping with acquaintance sexual assault: Applying an appraisal-based model. *Violence Against Women* 10:450-477.
- 29 Koss MP, Gidycz CA (1985) Sexual experiences survey: Reliability and validity. *Journal of Consulting and Clinical Psychology* 53:422-423.
- 30 Koss MP, Oros CJ (1982) Sexual experiences survey: A research instrument investigating sexual aggression and victimization. *Journal of Consulting and Clinical Psychology* 50:455-457.
- 31 Gidycz CA, Hanson K, Layman M (1995) A prospective analysis of the relationships among sexual assault experiences. *Psychology of Women Quarterly* 19:5-29.
- 32 Leserman J, Drossman DA, Li Z (1995) The reliability and validity of a sexual and physical abuse history questionnaire in female patients with gastrointestinal disorders. *Behavioral Medicine* 21:141-150.
- 33 Kroenke K, Spitzer RL, Williams JBW (2001) The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine* 16:606-613.
- 34 Bernstein EM, Putnam FW (1986) Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease* 174:727-735.
- 35 Finkelhor D, Browne A (1985) The traumatic impact of child sexual abuse: A conceptualization. *American Journal of Orthopsychiatry* 55:530-541.