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The Impact of PTSD Symptoms on Women's Safer-Sex Negotiation: Influence of Ethnicity

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Abstract

PTSD has been shown to predict later self reported sexual risk behavior, yet behavioral research is lacking in this area. The present study investigated the impact of PTSD severity on negotiation and interpersonal skills effectiveness in simulated high-risk sexual situations among 368 inner-city women. Participants engaged in role-play scenarios involving 1) refusing sex without a condom, 2) abstaining from drinking prior to sex, and 3) refusing sex until both partners were tested for HIV. Interviews were audio taped and rated along dimensions of negotiation effectiveness by blind raters. Hierarchical linear regression analyses were conducted to investigate the impact of PTSD and ethnicity on 4 theoretically derived skill sets 1) assertiveness, 2) using health and preparedness skills 3) social joining skills and 4) higher order negotiation skills. Generally, results indicated that PTSD severity predicted poorer rated negotiation effectiveness among European Americans, but not African Americans. African Americans' expectations that may prepare them for facing more hardship may help explain ethnic differences.

Keywords

Sexual Risk; Ethnicity; PTSD; Negotiation; Inner-city Women

Posttraumatic Stress Disorder (PTSD) negatively impacts health related behaviors such as drinking, smoking, and use and abuse of substances, making women with PTSD more susceptible to a host of health problems (Brief, et al. 2004; Lang et al. 2003; Zierler, et al. 1991). In particular, risky sexual behaviors that may lead to transmission of human immunodeficiency virus (HIV) and other sexually transmitted diseases (STDs) have been linked to PTSD (Green et al., 2005; Rosenberg et al., 2001). Yet, the way in which PTSD translates to unsafe sexual behavior, and specifically safer-sex negotiation, is unknown. The current study is among the first to investigate the influence of PTSD on sexual risk negotiation using behavioral observation methods.

Interpersonal violence and resultant PTSD have been suggested to be especially salient predictors of risky sexual behavior. Victims of child abuse (Testa, 2005; Van Dorn et al.,

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2005; Zierler et al., 1991), sexual assault and re-victimization (Miner, Flitter, & Robinson, 2006), and female prisoners have higher rates of substance use (Lang et al., 2003), have more partners and sexual activity overall, often have risky sexual partners, and are more likely to engage in especially risky behaviors such as receptive anal sex and prostitution (Hutton et al., 2001). The combination of child sexual and child physical abuse has been shown to produce an even stronger link to risky behaviors, suggesting that degree rather than type of trauma may be significant (Green et al, 2005).

PTSD Symptoms and Risk Behavior

PTSD and risky behaviors may be linked through women's decreased ability to verbally communicate and negotiate with their partners, as PTSD is associated with impaired communication in intimate relationships (McFarlane & Bookless, 2001). Further, in samples of women who have been victimized by men, not being able to discuss healthier sexual behavior with partners may be due to fear of being abused or assaulted even for suggesting it (Hobfoll et al., 2002; Ickovics & Rodin, 1992; Jemmott, Catan, Nyamathi, & Anastasia, 1995). A disproportionately high number of inner-city women are subjected to sexual, physical and emotional abuse during childhood and into adulthood, and thus may fear future abuse, or triggers to previous trauma, if they challenge male partners (Ickovics & Rodin, 1992; Kalichman, Williams, Cherry, Belcher, & Nachimson, 1998; St. Lawrence, Wilson, Eldridge, Brasfield, & O'Bannon, 2001; Wingood & DiClemente, 1997; Wyatt et al., 2004).

Women victims may also fear intimacy itself, making communication during intimacy particularly challenging (Davis, Petric-Jackson, & Ting, 2001). Some evidence suggests that specific symptoms of PTSD may uniquely impair communication. Riggs, Byrne, Weathers, and Litz (1998) proposed that symptoms of emotional numbing of PTSD would be especially predictive of conflict and detachment because of a lack of meaningful interactions between partners, setting a relationship environment where safer-sex discussions are unlikely. Alternatively, Davis, Petretic-Jackson, and Ting (2001) suggested that the experiential avoidance symptoms would be most detrimental in interpersonal relationships by diminishing interpersonal communication through avoidance behavior.

Theory-driven predictions about specific symptoms being uniquely influential in the relationship between PTSD symptoms and communication suggest that symptom levels may be more important in predicting safer-sex negotiation effectiveness than diagnostic criteria. In addition to specific symptoms interfering with communication, other symptoms have been associated with key health behaviors related to safer-sex as well. For example, hyperarousal and re-experiencing symptoms have been connected to later alcohol use (Back, Sonne, Killeen, Dansky, & Brady, 2003). This further suggests that sub-threshold, yet significant levels of symptoms may be important risk factors for impaired behavior.

Influence of Ethnicity

Ethnicity may also play an important role in women's ability to negotiate safer-sex behaviors, including condom negotiation. Kline, Kline and Oken (1992) found evidence from a sample of minority women that minority status seemed to be beneficial in terms of successful self-reported negotiations with partners. Theories about the way that culture imbues the experience of hardship and resilience may also impact negotiation. For example, the "Strong Black Woman" phenomenon presents an idealized image of black women as strong, self-reliant and protective of their family (Romero, 2000). Such traits may enable black women to engage in necessary health behavior even in the face of symptoms and ongoing hardship. Further, because of additional struggles minority women face, their cultural worldviews may provide expectations about the experience of trauma as well as subsequent behavioral resilience.

Further, with respect to trauma exposure, it has been documented that affective responses to trauma are similar with respect to severity for Blacks and Whites (Ndao-Brumblay & Green, 2005). Yet, it has been suggested that African Americans and European Americans have divergent behavioral coping styles in response to traumatic events. For example, African American women are more likely to use religious based coping methods (Bradley, Schwartz, & Kaslow, 2005). Further, research has suggested that differences in family structure, which are often related to ethnicity, may have implications for long-term coping with trauma (Amodeo, Griffin, Fassler, Cassandra, & Ellis, 2006). Similarly, one study suggested that European Americans were more likely than African Americans to experience hyperarousal symptoms and subsequent behavioral reactions in response to nonphysical trauma (Mainous, Smith, Acierno, & Geesey, 2005). Although little is known about how Blacks versus Whites experience and respond to trauma, especially within high-risk and potentially triggering sexual situations, we hypothesized that African American women may be better able to negotiate in the face of symptoms of PTSD.

The Present Study

The present study aimed to investigate the relationship of PTSD symptom severity with ratings of negotiation ability in behavioral scenarios that mimic real-world, stressful sexual situations in a sample of inner-city women, a group at high risk for sexual risk and victimization. Several studies have looked at the relationships between trauma and self-reported sexual risk behavior, but little research has been conducted on observed negotiation behavior. Research on sexual risk behavior typically involves self-reporting methods that may not necessarily represent what will happen when participants face actual partners under stress and need to act and think quickly (Brody, 1995). Thus, the present study employed behavioral observation, an important next step in this line of research. Because PTSD is believed to interfere with women's abilities to negotiate high-risk situations, it is hypothesized that women with higher levels of PTSD symptoms will demonstrate poorer performance in negotiating high risk sexual situations than those with lower symptom levels or no symptoms. Further, the present study will evaluate the differences between African American and European American lower-income, inner-city women screened for being at high risk of experiencing violence and contracting HIV. We hypothesize that due to the differences in behavioral coping, African American women may be better able to behaviorally cope with high-risk sexual situations.

Method

Participants

Data from a sample of 368 inner-city women was used for this study. Women were part of a larger ongoing project concerning HIV risk reduction. Average age of participants was 23 years; 66% were high school graduates or higher; 52% made less than \$10,000 a year. Eighty-six percent were single and 63% reported having at least 1 child. African American women represented 77% and European American women represented the rest of the sample. As ethnicity was part of our primary study question, sample sizes for other ethnicities were not large enough (Hispanic American, $n = 2$; Other, $n = 14$) to examine differences statistically and were thus omitted.

Design and Procedure

Data for the present study were obtained within a larger ongoing project on HIV risk reduction. For the larger study, participants were recruited at two women's clinics in a midsize, Midwestern city, as such clinics have been found to treat a broad, representative sample of inner-city women at risk for trauma (Horowitz, McKay & Marshall, 2005; Kanuha, 1994; Reid, 1993; Urquiza, Wyatt & Root, 1995). Women were eligible for the

study if they met at least 1 of the following sexual risk criteria: having had unprotected sex in the past 6 months, were single and sexually active, if they had a partner who was in prison in the past 5 years, or had a partner who was sexually active outside the relationship, or were using or being with someone who was using IV drugs. Women between 16 and 29 years of age were selected because it has been suggested that women of these ages engage in the most risky behavior (Hobfoll, Johnson, Ennis, & Jackson, 2003; Jemmott, Catan, Nyamathi, & Anastasia, 1995). Women were approached in the waiting area of two women's health clinics by trained interviewer staff and were asked if they were willing to participate in a study of women's health. If women agreed, they were screened for age and sexual risk criteria. If participants met criteria, they were informed about the nature of the study, and informed consent was obtained. Women were taken to a private interviewing room to complete the interviews. As part of the larger ongoing project, women were interviewed and assessed on various aspects of sexual health and risk factors as well as PTSD and other psychosocial measures at 4 time points across a span of 2 years. Data utilized in the present study was obtained at time 4, when women were asked to engage in behavioral role-plays.

Also as a part of the larger ongoing project, women were assigned to one of 3 treatment groups. Accelerating Capacity for Conflict Exposure Negotiation Training (ACCENT) was designed to help sexually-active women address conflict with their partners. This training addressed not only general negotiation skills, but also addressed women's fear of conflict potentially due to a gender power differential often noted as one of the primary difficulties for initiating safer-sex negotiation. In this group women were taught to utilize negotiation skills and both observed and practiced role-play with other women in the group involving various conflict situations. A second intervention group, General AIDS Competency (GAC) was designed to reflect standard HIV reduction interventions that aim to improve safer-sex negotiation skills, but do not focus on the important fears faced by victims of interpersonal violence, for which these negotiations may be challenging in characteristically different ways. GAC involved some basic negotiation skills training, but did not involve higher-order negotiation training or training in approaching and handling conflict. In the standard care group, women were informed on basic AIDS information and prevention methods.

The behavioral role-play scenarios involved situations in which women were instructed to 1) abstain from drinking prior to sex, 2) refuse sex without a condom, and 3) refuse sex until both partners were tested for HIV. Each scenario was designed to examine participants' negotiation and interpersonal abilities to engage in safer sex behavior in high-risk, high-conflict, sexual situations. These scenarios reflect 3 frequently occurring situations in the lives of high-risk inner-city women where there is opportunity for women to engage in safer sex behaviors that are often associated with HIV prevention (Kelly & Kalichman, 2002). Participants were read a standardized script that instructed them to attempt to achieve the safer-sex goal in each of the scenarios.

Interviewers were trained to utilize highly coercive techniques, and specifically were trained to be persuasive, confrontational, and mimic real responses that women face in relationships. Interviewers followed a general script of responses to common objections to minimize variation (e.g., "Well then I'm leaving!"; "Then our relationship is over!"). Such scripts of frequent responses and challenges were derived from reviews of negotiation and intervention literature, as well as previous studies by the authors for each scenario. Interviewers were trained by first observing role-plays by senior-level psychologists, themselves women of color who had helped develop the script, and then role-playing with trained interviewers. In each scenario, interviewers made at least 4 attempts of several options listed for each scenario to entice, cajole, or threaten the participant to agree to engage in risky sexual behavior. Interviewers received ongoing supervision and practiced role-plays throughout data collection to ensure continued accuracy and minimize variation.

Role-plays were audio-taped and assigned to blind raters. Raters were blind to ethnicity of each participant and represented multiple ethnicities themselves. Participants were rated along 11 dimensions of performance for each scenario by independent raters. Ratings were made based on how effective participants were at using each technique to meet the instructed goal for each scenario (e.g., to not have sex prior to being tested for HIV). Raters were trained by two senior clinical supervisors and were involved in frequent group supervision to ensure accuracy of ratings. Raters also followed a standardized rating sheet with example responses by interviewees for each rating on each dimension. Two independent raters rated each tape. The average rating was used in the analyses. Gamma was used to calculate inter-rater reliability among tape ratings. Tapes that were especially discrepant were also used for additional training and refinement of rating criteria.

Measures

Demographic information was gathered via self-report to gather information such as age, ethnicity, education, income, and pregnancy status.

Post-Traumatic Symptom Scale-Interview version (PSS-I; Foa, Riggs, Dancu & Rothbaum, 1993)—PTSD symptoms were indexed to the worst abuse or assault-related event individuals had experienced. If participants denied ever experiencing abuse/assault or being “troubled or upset” by the abuse or assault, they were assigned a 0 severity score for PTSD symptoms related to these traumas. The PSS-I is a severity scale that contains 17 items relating to the symptom criteria for PTSD (Diagnostic and Statistical Manual, 4th ed., APA, 1994). Items were rated in severity from 0 (not at all) to 3 (very much). Reliability for total PSS-I scores has been shown to be high in a sample of rape victims and non-sexual assault victims, with Cronbach's $\alpha = .91$ and 1 month test-retest reliability = .74 (Foa et al., 1993). Full-scale internal consistency reliability for the present study was high ($\alpha = .96$).

Behavioral role-play negotiation and interpersonal strategies—Role plays were rated along 11 dimensions of behavioral effectiveness on a 5-point Likert-type scale from 0 ‘not at all effective’ to 5 ‘very much effective’ based on previous research in this area (Kelly, St. Lawrence, Hood, & Brasfield, 1989). Dimensions included the following: “maintains a clear, consistent message”, “resists backing down”, “assertiveness”, “provides health explanation”, “demonstrates preparedness/provides alternatives”, “shows mutual understanding”, “seeks preferences”, “demonstrates foot in the door technique”, “utilizes horse trading”, “makes attempts to maintain the relationship”, and “overall negotiation”. The 11 measures were averaged across scenarios. Next, these dimensions were collapsed into four theoretically driven higher-order constructs: assertive behavior; knowledge about health-related concerns and preparation for such interactions; social joining techniques, in which individuals foster their relationships; and higher-order negotiation skills such as horse trading. The 11 dimensions and 4 higher-order constructs were chosen to assess a range of assertive negotiation skills often emphasized in assertiveness skills training interventions, as well as HIV risk reduction interventions. Inter-rater reliability was estimated using gamma, a statistic for continuous variables that accounts for chance agreement (Norusis, 1987; Siegel & Castellan, 1988). Gamma statistics fell between .58 and .97, with the majority falling above .80. Interpretation of these statistics suggests acceptable levels of inter-rater reliability for the tape ratings.

Results

Regression Analyses of PTSD Severity Predicting Performance Across Scenarios

Means and standard deviations of PTSD severity and of negotiation and interpersonal strategies appear in Table 1. Overall PTSD severity was low. One hundred eleven women

(30.2%) reported having been raped or had been a victim of an attempted rape. Further, 128 (34.8%) of the sample reported being the victim of at least 1 kind of child sexual abuse. Finally, 342 (92.9%) of women endorsed at least one kind of physical or emotional abuse as a child. Although women reported trauma exposure, many women denied that it caused them distress, and thus received a 0 on the PSS (accounting for 215 women or 58.4%).

Hierarchical linear regression analyses were conducted to investigate the effects of PTSD severity on (1) assertiveness, (2) health explanations and preparedness, (3) social joining, and (4) higher order negotiation skills. As part of the larger ongoing project, participants were assigned to one of 3 conditions, ACCENT, GAC, and a standard care group. As we were interested in the effects of PTSD severity and ethnicity beyond the effect of group membership, we controlled for it in the data analyses by entering 2 intervention group variables into the first step of regression models along with age and education. PTSD severity and ethnicity were entered in the second step, with the PTSD $\times$ ethnicity interaction in the final step. Significant interactions were mapped by entering -1 , 0 , and 1 standard deviations into each regression equation for levels of PTSD severity and are represented by “low,” “medium,” and “high” levels of PTSD in the figures. These labels are relative and do not denote diagnostic levels of PTSD symptoms.

For the regression predicting ratings of assertiveness skills, older age ($\beta = .13, p < .05$) and higher levels of education ($\beta = .14, p < .01$) significantly predicted higher ratings of assertiveness in the final model. Group membership in the ACCENT intervention group was predictive ($\beta = .12, p < .05$) of increased assertiveness, yet membership in the GAC intervention group was not significantly predictive. After controlling for their effects, analyses indicated that there was a significant main effect of ethnicity on assertiveness skills ($\beta = .12, p < .05$), with African Americans performing more assertiveness-based techniques overall. There was no main effect for PTSD severity. The interaction was a trend ($\beta = .29, p < .10$). African American women and European American women were similarly highly assertive at the lowest levels of PTSD. However, as can be seen in Figure 1, African Americans were unaffected by their PTSD levels ($\beta = .01, ns$). In contrast, among European Americans, as PTSD increased, their levels of assertiveness decreased marginally ($\beta = -.30, p < .10$).

Older age ($\beta = .12, p < .05$) and higher levels of education ($\beta = .15, p < .01$) significantly predicted more effective use of health explanations and preparedness skills. Further, having been assigned to either of the enhanced intervention groups, ($\beta = .23, p < .001$ for ACCENT; $\beta = .22, p < .001$ for GAC), as opposed to a standard care group, predicted better use of these skills. After controlling for their effects, there was a significant main effect of ethnicity on providing health explanations ($\beta = .14, p < .01$), with African Americans having higher levels of this technique overall than European Americans. There was also a significant main effect of PTSD severity, ($\beta = .10, p < .05$), reflecting that as PTSD rose, levels of health explanations and preparedness skills changed for both races. Yet, of main importance was the significant interaction of ethnicity $\times$ PTSD severity ($\beta = .40, p < .01$). The interaction was such that as levels of PTSD increased, European American women's use of preparedness and provision of health explanations marginally decreased ($\beta = -.28, p < .10$) (see Figure 2). Yet, African American women's use of health explanations and preparedness marginally increased as levels of PTSD increased ($\beta = .15, p < .01$), such that at higher levels of PTSD, African American and European American women's use of these items were significantly different.

Older age ($\beta = .13, p < .01$) and higher levels of education ($\beta = .13, p < .001$) significantly predicted utilizing more social joining techniques. Group membership was also predictive of utilizing more social joining techniques for both intervention groups ($\beta = .30, p < .001$ for

ACCENT; $\beta = .36, p < .001$ for GAC). After controlling for these effects, there were no main effects for PTSD severity or ethnicity on the amount of social joining that individuals engaged in. The interaction of ethnicity $\times$ PTSD severity ($\beta = .38, p < .001$) was significant. For African Americans, as levels of PTSD increased, social joining remained stable, whereas for European Americans, as levels of PTSD increased, levels of social joining decreased ($\beta = .11, p < .05$) (see Figure 3).

In the final regression analysis, higher levels of education ($\beta = .17, p < .01$), as well as group membership in either intervention group ($\beta = .29, p < .001$ for ACCENT; $\beta = .28, p < .001$ for GAC) were significantly predictive of utilizing higher-order negotiation skills. After controlling for their effects, there were no significant main effects for ethnicity or PTSD severity on higher-order negotiation skills. However, the interaction of ethnicity $\times$ PTSD was significant ($\beta = .35, p < .05$). Mapping this interaction (see Figure 4), it can be seen that European Americans again performed slightly though not significantly worse as levels of severity rose ($\beta = -.18, p < .10$), but African Americans tended to perform better as severity increased ($\beta = .11, p < .05$).

Discussion

The present study investigated the impact of PTSD severity on women's ability to negotiate high-risk sexual situations, and the moderating role that ethnicity plays in this relationship. With respect to the regression results, across the 4 analyses, results generally indicated that European American women's interviewer-rated ability to negotiate high-risk sexual situations was negatively impacted by higher levels of PTSD symptoms, whereas African American women were rated as able to negotiate in high-risk situations just as well, and in some cases better, at higher levels of PTSD symptoms. Interactions were significant across 3 (Health and Preparedness, Social Joining, and Higher-order Negotiation skills) of the 4 constructs. It is possible that we failed to reach statistical significance for the assertiveness variable due to high ratings for assertiveness overall, and limited variability.

Although tentative, this finding is unique and important because it may counter traditional views that high levels of PTSD symptoms interfere with one's overall ability to negotiate in relationships, as found in previous literature on relationship functioning and PTSD (McFarlane & Bookless, 2001). The present study also speaks to potential resilience of African American women, who may be better able to negotiate in a sophisticated manner, even when reporting experiencing mild to severe mental and emotional disturbance. Such findings indicate that there may be a fundamental difference in the way that European and African American women are able to function with symptoms of PTSD.

The vast amount of literature on the experience of African American women highlights the challenges and disadvantages that exist for them, including higher rates of psychopathology, poverty, worse physical health and higher incidence of violence and trauma exposure (Breslau, Davis, Andreski, & Peterson, 1991; Bulhan, 1985; Ng-Mak, Salzinger, Feldman, & Stueve, 2002) among many others. However, the present study counters the repeated emphasis on ethnic minority disadvantage and suggests that low-income African American women may actually be better able to handle complex interpersonal negotiations with intimate partners at higher levels of PTSD symptoms despite, or in part because of, their often disadvantaged life circumstances. Further, the results potentially support the findings of Kline, Kline and Oken (1992) that minority status may actually serve to support women's negotiation abilities in these kinds of situations. There are a few important theories that may explain this difference.

A difference in worldview, or core beliefs about how the world works (Greenberg, Solomon, & Pyszczynski, 1997; Janoff-Bulman, 1989; Koltko-Rivera, 2004) that incorporates social disadvantage and prejudice may prepare individuals to deal with injustice and hardship (Major, Kaiser, O'Brien, & McCoy, 2007). Lifetime higher levels of exposure to traumatic events and lifetime hardship, especially discrimination (Major, Kaiser, O'Brien, & McCoy, 2007) may lead African American women to incorporate a worldview in which trauma and hardship happen, and therefore they may continue on in their normal functioning. This is consistent with research that suggests that there is a normalization of violence demonstrated by less affective behavioral responses to violence among an inner-city population (Ng-Mak, Salzinger, Feldman, & Stueve, 2002).

The “Strong Black Woman” (SBW) phenomenon, presenting black women as strong and self-reliant may also provide theoretical support for difference in worldview and behavior. Traits associated with SBW become especially important in the face of hardship and triggers of trauma. Given the high rates of trauma exposure and owing to the history of trauma that African American women have experienced, inner-city African American women likely have family and friends who have similarly experienced trauma. These SBW serve as models for behavior in the face of violence, propagating skills to enable them to deal with tragic, yet likely common, life circumstances. Such skills may translate to a significant resilience that may be culturally imbued due to historical violence and victimization that Black women face (Bent-Goodley, 2007). Future studies should explore this theory by utilizing measures aimed at addressing these important theoretical questions.

This study is one of the first to highlight the importance of worldview and culture in behavioral negotiation of high risk situations in the face of symptoms of PTSD. Previous literature on the intersection of worldview and ethnicity is lacking with respect to post-trauma behavioral data, specifically in the context of high-risk sexual situations. Future research in this area should include measures of worldview, and specifically investigate how it may play a role in women's abilities to negotiate post-trauma. More specifically, research should investigate how worldview and the SBW ideology may be a resilience factor for African American women.

This study has several strengths. It is one of few studies in the literature to assess sexual risk through behavioral role-plays that mimicked real-life challenges many low-income, inner-city women face. Most research based on sexual risk is conducted through self-reports that may not necessarily reflect actual behavior (Brody, 1995). Utilizing behavioral role-plays allowed a more confident generalization to real sexual risk interactions with intimate partners. Other strengths include the large sample size, including enough European American and African American women to make comparison possible. Further, our low-income, inner-city female sample reflects some of those at most risk for both PTSD and unhealthy sexual behavior. Using this sample allows us to make stronger generalizations to inner-city at risk populations.

Several limitations were also notable. First, our PTSD severity overall was relatively low. Thus results should be considered carefully within the context of relatively low symptom levels. Evaluating negotiation behavior in higher and clinical-level symptoms would enable us to speak more confidently about the way that symptoms of PTSD interfere in such interpersonal situations. Second, we instructed women to engage in the behavioral role-plays and to attempt to avoid giving in to unsafe sex. It is an interesting future question, however, how much PTSD symptom severity would impact a woman's willingness to bring up such a conversation without being instructed to do so. Third, our use of female interviewers may limit the generalization of our findings. High levels of distress secondary to triggers by male partners are likely to significantly alter negotiation ability. It is also likely that although our

scenarios and scripts for role-plays were based in prior research and theory, they do not completely capture the behavioral and verbal pressures women face in heterosexual real life risk situations our role-plays intended to mimic. Finally, the present study looked at women at moderate and high risk for HIV and interpersonal violence, so findings may not generalize to lower risk groups.

The present study highlights an important area of future research in the identification of behavioral resilience for African American women. By demonstrating the resilience that women show in the face of symptoms of trauma, new insights into how to teach and foster resiliency may be gained. In this way, research on understanding African American women's resilience to behavioral decrements could aid other women by yielding new and innovative ways to promote behavioral and negotiation success in the face of severe PTSD. Although preliminary, this study provides a base for future studies to examine the roles of worldview and ethnicity on the impact of PTSD on negotiating high-risk sexual situations.

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Figure 1.
Regression Results Comparing African Americans' and European Americans' Assertiveness Techniques by PTSD Severity

Figure 2.
Regression Results Comparing African Americans' and European Americans' Health and Preparedness Techniques by PTSD Severity

Figure 3.
Regression Results Comparing African Americans' and European Americans' Social Joining Techniques by PTSD Severity

Figure 4. Regression Results Comparing African Americans' and European Americans' Negotiation Skills by PTSD Severity

Table 1

Means and Standard Deviations of Study Variables by Ethnicity

	African Americans (n = 275)		European Americans (n = 93)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
PTSD Severity	4.88	9.75	4.37	9.00
Assertiveness	13.74	1.10	13.42	1.57
Health/Preparedness	5.89	1.24	5.46	1.24
Social Joining	7.39	1.87	7.12	1.98
Higher-order Negotiation	5.88	1.74	5.55	1.84