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Sexual Risk Among African American Women: Psychological Factors and the Mediating Role of Social Skills

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Abstract

Prior research demonstrates a positive association between mental health problems and sexual risk for African American women. Using the social skills deficit hypothesis, we proposed that social skills mediate this relationship. African American women ($n = 557$, M age = 20.58) completed measures of depression, stress, emotional dysregulation, sexual risk behaviors, and perceptions of their social skills with their primary sexual partner. Social skills mediated the link between the mental health assessments and a composite sexual risk index. Theoretical implications of extending the social skill deficit hypothesis are discussed as well as implications for interventions.

Keywords

African American Women; Depression; Emotional Dysregulation; Interpersonal Stress; Sexual Risk; Social Skills

According to the Centers for Disease Control and Prevention (CDC, 2015) African American women accounted for 29% of the diagnosed HIV/STI cases reported in 2010, despite accounting for less than 10% of the United States population. Of women infected during this time, African Americans represented 64% of the total, making them roughly 20 times more likely than Caucasian women to contract HIV (CDC, 2015). An important risk factor for risky sexual behavior is poor mental health (Meade & Sikkema, 2005). For example, prior research consistently demonstrates that for African American psychological distress is positively associated with risky sexual behaviors such as engaging in unprotected sex, having sex with multiple partners, and using condoms inconsistently (Seth et al., 2011).

Despite the strong empirical evidence associating these mental health problems with sexual risk, factors that mediate this relationship for African American women are currently under explored. We propose that social skills, defined as the “ability of an individual to achieve his or her interpersonal goals in a manner that is reasonably efficient and appropriate” (Segrin & Dillard, 1993, p. 76), may mediate the association between mental health problems and sexual risk. Specifically, using the social skills deficit hypothesis as a theoretical foundation (Lewinsohn, 1974), we examine how multiple psychological factors (operationalized as depression, interpersonal stress, and emotional dysregulation) predict sexual risk through two indicators of social skill with one’s main sexual partner (sexual communication self-efficacy and destructive conflict tactics).

Social Skills and Depression

Definitions of “social skills” are broad and multidimensional, yet most definitions highlight that social skills are abilities that facilitate rewarding interactions with others (Segrin, 1992). When considering safe-sex communication practices, two distinct aspects of social skills are likely relevant: safer sex communication self-efficacy and use of destructive conflict tactics with main sexual partners. Sexual communication self-efficacy is a mechanism of social skills whereas destructive conflict tactics are the expression of social skills in a specific setting. Thus, in the context of the current research, the construct social skills mirrors communication skills conceptually.

Lewinsohn’s (1974) social skills deficit theory of depression was originally based on the premise that poor social skills lead to depression. The social skills deficit hypothesis postulates that poor social skills are the mechanism by which individuals experience social isolation, low levels of social support, and negative life experiences, which in turn make them susceptible to depression (Segrin, 2000). Despite the theory’s original claim that social skills cause depression, empirical findings are mixed as some research demonstrate that depression may be the cause of poor social skills (see e.g., Lewinsohn, Hoberman, Teri, & Hautzinger, 1985), and there is a stronger theoretical rationale for why depression should predict poorer social skills (Bandura, 1993; Gotlib & Asarnow, 1979).

Perhaps the most compelling argument to date is that depression can reduce one’s ability and motivation to socialize and communicate appropriately and effectively (Segrin, 2000). People with depressive symptoms may possess a wide variety of social skills, however the symptoms associated with depression (e.g., fatigue, lack of focus, irritability; APA, 2010)

may result in depressed individuals communicating less efficaciously. The following sections expand on the relationship between depressive symptoms and two indicators of social skills relevant to sexual risk.

Safer Sex Communication Self-Efficacy

Communication self-efficacy is one's belief in one's ability to communicate effectively and appropriately during social interactions, whereas safer sex communication self-efficacy is confidence in one's ability to talk to a partner about sexually transmitted diseases and sexual history, as well as the ability to negotiate condom use. Communication self-efficacy is a fundamental dimension of social skills that affects decision making and behavioral motivations (Bandura, 1997). Research demonstrates that communication self-efficacy is negatively associated with depressive symptoms (Segrin, Hanzal, Donnerstein, Taylor, & Domschke, 2007). In a study conducted with African American women, psychological distress (i.e., recent depressive symptoms) negatively predicted self-efficacy to refuse sex in a number of social situations such that women who reported high depressive symptoms were less confident in their ability to effectively reject a potential sexual partner (Seth et al., 2011). This research is consistent with studies that show depressive symptoms as a predictor of low self-worth and low self-esteem (Coyne, Gallo, Klinkman, & Calarco, 1998; Hayes, Harris, & Carver, 2004). According to the scar hypothesis, depressive symptoms can negatively alter one's self-concept such that they experience low self-esteem and high amount of self-doubt (Rhode, Lewinson, & Seeley, 1990). Thus, if depressive symptoms negatively affect a woman's self-concept, it is likely that her safer sex communication self-efficacy would decrease.

Destructive Communication During Conflict

Depressive symptoms likely inhibit the ability to communicate skillfully, which is relevant in sexual communication situations, especially if such negotiations lead to conflict about condom use. Research on depression and relational conflict indicates that destructive conflict tactics are mechanisms through which depressive symptoms are maintained (Mackinnon et al., 2012). Specifically, Mackinnon et al. (2012) observed that reports of depressive symptoms predicted behaviors such as yelling and criticizing romantic partners during conflict in the following two weeks. Based on these results, researchers reasoned that symptoms of depression, such as irritability, likely foster an environment of increased conflict and hostility in romantic relationships. In fact, depressive symptoms have been linked to aggressive behaviors during conflict (Basco, Prager, Pita, Ramir, & Stephens, 1992). Additionally, in a study examining African American adolescent females, depressive symptoms were associated with increased family conflict (Constantine, 2006), further demonstrating that depressive symptoms are associated with conflict in close relationships. Put together, this research suggests that couples with a depressed individual tend to communicate with more negativity and use destructive tactics such as verbal aggressiveness during conflict interactions (Heene, Buysee, & Van Oost, 2007).

Furthermore, research conducted on depression and cognitive load posits that experiencing depressive symptoms is similar to multitasking insofar as they both reduce complex and

creative thinking (Bredemeier et al., 2012), which may directly impact conflict communication tactics. Depression is associated with perceptual biases when processing information such that depressed individuals focus predominately on negative information while showing minimal attention to positive information (Shane & Peterson, 2007). This perhaps explains why research shows that individuals who suffered ill mental health are more likely to lack confidence in solving social problems, view social problems more negatively, and engage in less cooperative problem-solving behaviors compared to participants with high levels of mental health (Anderson, Goddard, & Powell, 2009; Lemmens, Buysse, Heene, Eisler, & Demyttenaere, 2007). Overall, this prior research suggests that the drive to collaborate and resolve relational conflicts constructively is weakened due to depressive symptoms.

Interpersonal Stress and Emotional Dysregulation

Although the social skills deficit theory focuses particularly on depression, we suggest that these theoretical principles extend beyond depression and provide grounds to test the mediating role of social skills in the relationship between emotional dysregulation and interpersonal stress on sexual risk. *Emotional dysregulation*, or emotional hyperreactivity, refers an inability to control or regulation emotional responses coupled with emotional vulnerability and/or instability (Cole, Michel, & Teti, 1994). *Interpersonal stress* is conceptualized as the experience of distress due to undesirable social situations (Watts-Jones, 1990). Individuals who experience stress and/or emotional dysregulation are not necessarily depressed, however stress and depression both include symptoms such as difficulty concentrating, irritability, and fatigue (American Psychological Association, 2010). Moreover, depression and emotional dysregulation share symptoms such as rumination and reduced ability to identify emotional states as well as cope with negative emotions. Furthermore, research suggests that excessive life stressors may be a potential trigger for depression (Monroe & Harkness, 2005). For example, Hammen's (2003) review of the relationship between interpersonal stress and depression shows that women with depression are more likely to experience life stressors such as dysfunction in family and romantic relationships (Hammen, 2003). Indeed, longitudinal research indicates that stressful life events and increased vulnerability in interpersonal relationships are strong predictors of major depressive episodes (Vrshek-Schallhorn et al., 2015). Overall, this research illustrates the conceptual similarities among depression, interpersonal stress, and emotional regulation.

Social Skills and Sexual Risk

We contend that diminished social skills are mechanisms that account for why depressed women are more vulnerable to sexual risk and engage in more risky sexual behavior. As noted above, depressed women exhibit poorer social skills. In addition, other studies have observed that social skills with one's sexual partner are consistent predictors of safe sex behaviors, such as condom use (Noar, Cole, & Carlyle, 2006). In studies specific to African American women, women who are assertive when discussing sex with their partner are more likely to use condoms regularly, whereas inconsistent sexual communication with partners is linked to inconsistent condom use (St. Lawrence, Eldridge, Little, Shelby, & Brasfield,

1998; Wingood & DiClemente, 1998a). Moreover, communication self-efficacy is linked to risky sexual behavior (e.g., Caprara, Gerbino, Paciello, Di Giunta, & Pastorelli, 2010; Sales et al., 2008). For example, Sales et al. (2008) observed that safer sex communication self-efficacy mediated the relationship between sexual abuse history and condom use among African American women. If women do not believe safe sex talks with their partner will be successful, their motivation to discuss topics such as condom use and STIs will naturally diminish. Thus, poorer social skills may make these women particularly vulnerable to sexual risk.

While condom use is an important indicator of sexual risk, there is limited research examining measures other than condom use in conjunction with social skill deficits. With this in mind, we seek to build upon previous research by examining multiple dimensions of sexual risk.

We assess sexual risk by examining five dimensions of sexual risk: biological markers of sexually transmitted infections, which are measured using vaginal swabs; condom use at last sex act; number of sexual partners in the past 90 days; alcohol consumption before sex in the past 90 days; and trading sex for monetary incentives. The presence of STIs, which is measured using vaginal swabs, and number of sexual partners are both commonly used as indicators of sexual risk (e.g., Prause, Steele, Staley, & Sabatinelli, 2015). Alcohol consumption before sex is included, as several studies find that drinking before sex is associated with less condom use (see e.g., Seth et al., 2011). Last, sex with risky partners, including men who provide monetary incentives such as food or money, is related to exposure to HIV and, thus, also a valid measure of sexual risk (Tillerson, 2008). Overall, these multiple aspects provide a more holistic assessment of sexual risk vulnerability in relation to depression and social skills.

To summarize, based on the social skills deficit hypothesis we anticipate that social skills are key mechanisms by which depression and sexual risk are related and thus:

H1 Sexual communication self-efficacy (H1a) and destructive conflict tactics (H1b) mediate the relationship between depressive symptoms and sexual risk.

Last, we extend the social skills deficit hypothesis beyond depression and test it using emotional dysregulation and interpersonal stress as exogenous variables.

H2 Sexual communication self-efficacy (H2a) and destructive conflict tactics (H2b) mediate the relationship between interpersonal stress and sexual risk.

H3 Sexual communication self-efficacy (H3a) and destructive conflict tactics (H3b) mediate the relationship between emotional dysregulation and sexual risk.

Methods

These data were collected at the baseline of a randomized controlled comparative efficacy trial of an intervention to decrease alcohol-related sexual risk among young at risk African American women. Participants completed an audio computer-assisted self-interviewing (ACASI) survey and provided a vaginal swab specimen for STI analysis.

Participants

Participants ($n = 557$) were African American women ($M_{age} = 20.58$, $SD = 1.89$). Participants were primarily recruited in person from various locations throughout the Atlanta, GA area (e.g., malls, clubs, bars), work placement programs, and by referral from past participants. Interested individuals provided contact information so eligibility screening could be done over the phone if they were recruited from a location where they could not be screened confidentially (most completed eligibility screening via the phone). Criteria for inclusion were that women were between 18–24 years of age, had three or more alcoholic drinks in the past 90 days, were not currently pregnant or married, and had unprotected vaginal or anal sex within the past 90 days. Participants received monetary compensation for their completion of the baseline measures (\$60).

Procedure

Participants were recruited from January 2012 to February 2014. Procedures were approved by a federally accredited institutional review board. Because this study was particularly involved, IRB-approved recruitment materials made clear the time commitment, the activities, and the topic of the intervention, as well as the monetary incentive for their participation.

After signing consent forms, participants provided a urine sample to detect pregnancy. Individuals who tested positive at baseline for pregnancy were not eligible. Staff next instructed participants how to self-collect a vaginal swab specimen using an anatomical model of a vagina (Smith et al., 2001). Specimens were delivered to a Pathology Research Laboratory and assayed for two bacterial pathogens, *C. trachomatis* and *N. gonorrhoeae* using the BDProbeTec ET *C. trachomatis* and *N. gonorrhoeae* amplified DNA assay (Becton Dickinson and Company, Sparks, MD; Van Der Pol et al., 2001). The study nurse provided directly observed single-dose antimicrobial treatment and risk-reduction counseling per CDC recommendations to all participants with a positive STI test (Workowski, & Berman, 2010). Participants who tested positive for any of the STIs also were encouraged to refer sex partners for treatment. The County Health Department was notified of reportable STIs.

Following collection of the vaginal swab, participants completed an audio computer-assisted self-interview (ACASI) survey, providing information on demographics, alcohol and drug use, personality, and sexual risk behavior. The ACASI survey on average took 90 minutes to complete. Participants completed the ACASI at a local Atlanta university.

Measures

Depressive Symptoms—Santor and Coyne's (1997) Revised Center for Epidemiologic Studies Depression (CES-D) scale measured depressive symptoms. Participants rated how they felt during the past week in reference to eight items (e.g., "I felt depressed."). Items were rated on a 4-point scale (1 = *less than 1 day* to 4 = *5–7 days*). Higher scores indicated the presence of more depressive symptoms ($\alpha = 0.91$; $M = 13.36$; $SD = 5.85$).

Emotional Dysregulation—The emotional regulation subscale of the SWAP-200 (Shedler & Weston, 2004) assessed emotional dysregulation. The 18-item scale asked

participants to rate the degree to which they felt they managed and controlled their emotions (e.g., “I have trouble soothing myself when I’m upset”) on a 5-point scale (1 = *Not true*, 5 = *Very true*). Higher scores indicated more emotional dysregulation ($\alpha = 0.93$; $M = 41.37$; $SD = 17.39$).

Interpersonal Stress—Watt-Jones (1990) Interpersonal Stress scale was used to measure interpersonal stress. These 14 items (e.g., “I find the following things stressful: Being in a relationship.”) were developed specifically for African American women and assess stress in various contexts on a 6-point scale (0 = *Does not apply* to 6 = *Extreme stress*). Higher scores indicate more perceived interpersonal stress ($\alpha = 0.91$; $M = 37.78$; $SD = 15.25$).

Sexual Communication Self-Efficacy—Wingood and DiClemente’s (1998b) Partner Communication Self-Efficacy scale assessed sexual communication self-efficacy. The 6-item scale measured how challenging it would be to talk about sexual health topics (e.g., how hard is it for you to ask if he has an STD?) and condom use (e.g., how hard is it to ask if he would use a condom?) with a main sex partner on a 4-point response scale (1 = *Very hard* to 4 = *Very easy*). Higher scores indicated greater self-efficacy ($\alpha = 0.86$; $M = 19.32$; $SD = 4.23$).

Destructive Conflict Tactics—To measure destructive conflict tactics, six items from the physical and psychological aggression subscales of the Revised Conflict Tactics scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) were used. An exploratory factor analysis found two items had poor loadings and, thus, were eliminated. The final factor consisting of four items that asked participants to rate how often they engaged in a particular behavior with their sexual partner during conflict within the past year. The four items are (a) avoided him, (b) tried to put him down, (c) refused to talk about it, and (d) hit (or tried to hit) him with something hard. We suggest these items are reflective of maladaptive behaviors during conflict with an intimate partner more broadly. These items showed good reliability, $\alpha = 0.82$, as well as face validity for destructive conflict tactics ($M = 2.24$; $SD = 1.23$).

Sexual Risk Index—An index of sexual risk was created using five assessments. The tests for presence of biological markers of Chlamydia, Gonorrhea, and Trichomoniasis were summed such that a score of 1 = no STI; 2 = one STI; 3 = two or more STIs. The final four assessments in the sexual index were all self-report. Participants indicated their number of sexual partners in the past 90 days. Number of sexual partners was recoded such that 1 = one sexual partner; 2 = two sexual partners, and 3 = three or more sexual partners. In addition, participants indicated whether in the past 90 days they had consumed alcohol prior to sexual intercourse, and exchanged or traded vaginal, anal, or oral sex for drugs, money, food, or a place to stay. The fifth measure assessed if they had used a condom during their last sexual encounter. These three items (consumed alcohol prior to sex, traded sex, condom use at last sex act) were all coded such that 1 = no and 2 = yes. The index was constructed by summarizing scores for the five indicators of risky sexual behavior ($M = 7.33$; $SD = 1.42$); higher scores indicate more sexual risk.

Results

Table 1 presents the zero-order correlations. The sexual risk index was positively associated with interpersonal stress and depression and negatively associated with lower emotional regulation. Sexual communication self-efficacy and destructive conflict tactics were both significantly associated with sexual risk as well as with depression, interpersonal stress, and emotional regulation.

Hypothesis Testing

To test Hypotheses 1–3, we conducted a mediation analysis using Hayes' (2013) PROCESS Macro for SPSS. This analysis uses bootstrapping to test for indirect effects in a mediation model. Direct and indirect effects were calculated based on 5,000 bootstrap samples and a 95% confidence interval. This method generates regression coefficients between four paths: the exogenous variable to the mediator variables (*a* paths); the mediator variables to the dependent variable (*b* paths); the exogenous variable to the dependent variable while controlling for the mediators (*c'* path); and the exogenous variable to the dependent variable through the mediators, also known as the indirect effect (*ab* paths). Separate models were conducted for each exogenous variable. The two mediators were run simultaneously in all three models, allowing the mediating variables to control for one another. Significant indirect effects are indicated by confidence intervals that do not include zero.

Depression

H1 stated that sexual communication self-efficacy and destructive conflict tactics would mediate the relationship between depression and sexual risk. A significant positive direct effect from depressive symptoms to the sexual risk index (SRI) was observed (effect = 0.04, SE = 0.01, 95% CI = 0.02 to 0.06). The effect size for the direct effect was computed through a partial correlation of depression on sexual risk while controlling for the effect of both mediators, $r = 0.16$. There was also a significant negative association between depressive symptoms and sexual communication self-efficacy ($B = -0.22$, SE = 0.03, $p < 0.001$) and a significant negative association between sexual communication self-efficacy and the SRI ($B = -0.04$, SE = 0.01, $p < 0.01$). The mediation test showed a significant indirect effect from depressive symptoms to sexual risk through sexual communication self-efficacy (effect = 0.01, SE = 0.004, 95% CI = 0.003 to 0.02), supporting H1a. The effect size estimate of the indirect effect was $\kappa^2 = 0.04$ (Preacher & Kelley, 2011).

There was a significant positive association between depressive symptoms and destructive conflict tactics ($B = 0.08$, SE = 0.01, $p < 0.001$), and between destructive conflict tactics and sexual risk ($B = 0.22$, SE = 0.05, $p < 0.001$). The mediation test found a significant indirect effect from depressive symptoms to sexual risk through destructive conflict tactics (effect = 0.02, SE = 0.01, 95% CI = 0.01 to 0.03), supporting H1b. The indirect effect size was $\kappa^2 = 0.02$. Thus, H1 was fully supported.

Interpersonal Stress

H2 stated that sexual communication self-efficacy and destructive conflict tactics would mediate the relationship between interpersonal stress and sexual risk. Results showed a

significant positive direct effect from interpersonal stress to the sexual risk index (effect = 0.01, SE = 0.01, 95% CI = 0.002 to 0.02). The direct effect size was $r = 0.14$. There was a significant negative association between interpersonal stress and sexual communication self-efficacy ($B = -0.07$, SE = 0.01, $p < 0.001$) and between sexual communication self-efficacy and sexual risk ($B = -0.05$, SE = 0.01, $p < 0.001$). The mediation test showed a significant indirect effect from interpersonal stress to sexual risk through sexual communication self-efficacy (effect = 0.003, SE = 0.001, 95% CI = 0.001 to 0.01), supporting H2a. The indirect effect size was $\kappa^2 = 0.04$.

There was a significant positive association between interpersonal stress and destructive conflict tactics ($B = 0.03$, SE = 0.004, $p < 0.001$), and between destructive conflict tactics and sexual risk ($B = 0.25$, SE = 0.05, $p < 0.001$). The mediation test revealed a significant indirect effect from interpersonal stress to sexual risk through destructive conflict tactics (effect = 0.01, SE = 0.002, 95% CI = 0.005 to 0.01), supporting H2b. The indirect effect size was $\kappa^2 = 0.10$. H2 received full support.

Emotional Dysregulation

H3 stated that sexual communication self-efficacy and destructive conflict tactics mediate the relationship between emotional dysregulation and sexual risk. Results revealed a significant positive direct effect from emotional dysregulation to sexual risk (effect = 0.01, SE = 0.004, 95% CI = 0.01 to 0.03). The direct effect size was $r = 0.12$. There was a significant negative association between emotional dysregulation and sexual communication self-efficacy ($B = -0.07$, SE = 0.01, $p < 0.001$) and a significant negative association between sexual communication self-efficacy and sexual risk ($B = -0.05$, SE = 0.02, $p < 0.01$). The mediation test showed a significant indirect effect from emotional dysregulation to sexual risk through sexual communication self-efficacy (effect = 0.003, SE = 0.001, 95% CI = 0.001 to 0.01), supporting H3a. The indirect effect size was $\kappa^2 = 0.04$.

Finally, there was a significant positive association between emotional dysregulation and destructive conflict tactics ($B = 0.03$, SE = 0.003, $p < 0.001$), and a significant positive association between destructive conflict tactics and sexual risk ($B = 0.23$, SE = 0.06, $p < 0.001$). The mediation test revealed a significant indirect effect from emotional dysregulation to sexual risk through destructive conflict tactics as the confidence intervals included zero (effect = 0.01, SE = 0.002, 95% CI = 0.003 to 0.01), supporting H3b. The indirect effect size was $\kappa^2 = 0.10$. H3 was fully supported.

Discussion

Given that young African American women are at such an elevated risk for HIV/STIs, researchers have sought to explain factors that contribute to sexual risk. Prior work demonstrated that depression, stress, and emotional dysregulation are all positively associated with risky sexual behavior. We extended this prior work by hypothesizing that a social skill deficit may mediate associations between these psychological variables and sexual risk outcomes. As predicted, depression, interpersonal stress, and emotional dysregulation were all positively associated with sexual risk through two social skills mediators: sexual communication self-efficacy and use of destructive conflict tactics. The

findings indicated that certain social skills may act as a behavioral mechanism that links psychological states and sexual risk. Below, we elaborate on the theoretical and practical implications of these results.

Communication Self-Efficacy

Consistent with the social skills deficit hypothesis, increased symptoms of depression, stress, and emotional dysregulation were associated with reduced social skills, indicated by a lack confidence in the ability to talk about sexually related topics. One of the significant observations from this study was that communication self-efficacy significantly mediated the relationship between all three psychological factors and sexual risk. These results suggest that the degree to which these women believe they have the ability to effectively communicate with their main sexual partners is crucially related to sexual risk vulnerability. All three psychological factors involve symptoms that reduce ability and motivation to interact effectively in interpersonal relationships (Motoyoshi & Hosono, 2014; Segrin et al., 2007). For example, Caprara and colleagues (2010) found that interpersonal and social self-efficacy predicted one's ability to resist peer pressure. Moreover, these researchers observed that low self-efficacy was related to depressive symptoms and delinquent behaviors, including alcohol and drug use and aggressiveness. Just as Caprara et al. (2010) found low social and interpersonal self-efficacy affected the ability to resist peer pressure, women who experience low sexual communication self-efficacy may experience difficulties if and when their sexual partner pressures them to engage in sexual activity, making them vulnerable to sexual risk. Applied to the current results, we reason that low sexual communication self-efficacy leads to less open and effective conversations with main sexual partners about past sexual history, condom use, and STIs.

Destructive Conflict Tactics

Another important finding was that destructive conflict tactics with a main sexual partner was also a significant mediator between all three psychological factors and sexual risk. Because interpersonal conflict is inherently dyadic, women's use of destructive conflict tactics may be in response to their partner's behavior and thus serve as an indication of their partner's destructive tendencies. Prior studies indicate that goals and communication behaviors during conflict discussions shift in reaction to partner behaviors (Keck & Samp, 2007). Moreover, during conflict, individuals tend to react to partner negativity with increased hostility (Gottman, 1994). On the other hand, research demonstrates that psychological factors such as stress and emotional dysregulation cause self-ruminating thoughts which are associated with less problem-solving skills, decreased motivation to collaborate during conflict, and verbal aggression (Lyubomirsky & Nolen-Hoeksema, 1995). For example, Miller and Roloff (2014) observed that rumination is related to taking conflict personally and revenge seeking motivations. Our results extend this work and suggest that less problem-solving skills increase one's vulnerability to sexual risk. The findings observed here align with previous research showing that among young women, negativity during conflict and conflict avoidance are both positively associated with sexual assault (Chang & Hirsch, 2015). More broadly, it seems communication that suppresses collaboration and potentially escalates conflict may leave women susceptible to increased sexual risk. Thus,

past literature and the current results suggest that conflict communication with sexual partners is a key mechanism through which women experience increased sexual risk.

Expanding Social Skills Deficit Hypothesis

The results expand the theoretical scope of the social skills deficit hypothesis beyond depression. The social skills deficit hypothesis claims that depression affects one's ability to maintain and experience positive interpersonal relationships. For example, Kingstone and Endler (1997) found that depressed people use significantly less supportive communication and more defensive communication with intimate partners. We suggested that because emotional dysregulation and interpersonal stress share similar symptoms with depression, they may have similar negative effects on social skills. Analyzing depression, stress, and emotional dysregulation in separate models allowed us to observe that these similar, yet distinct psychological issues shared very similar relationships with social skills and sexual risk. Thus, not only are reduced social skills linked to depressive symptoms, they also occur in people who have difficulty managing stress and emotions. This finding is consistent with past research suggesting that emotional management is a fundamental component of social competence (Blair et al., 2015). In other words, the many symptoms associated with emotion emotional dysregulation are communicative in nature (e.g., expressing emotions appropriately) (Blair et al., 2015). Therefore, when theorizing about the relationship between social skills deficits and psychological factors, we suggest that any psychological conditions that include symptoms that are inherently emotional or social (e.g., irritability, difficulty concentrating) may put people at increased risk of diminished social skills. Moving forward, researchers could test this speculation by examining the link between social skills and various types of psychological factors. For example, future research could investigate the relationship between social skills deficits and psychological conditions such as post-traumatic stress disorders, obsessive compulsive disorders, and eating disorders.

Applied Implications

Prior research with high risk African American samples suggests many women who engage in sexually risky behavior are at elevated risk for mental health problems. Thus, interventions to reduce sexually risky behavior may first address root causes of sexual risk such as depression and emotional dysregulation via culturally specific cognitive behavioral counseling (see e.g., Ward & Brown, 2015). The findings reported here highlight the need to address social skills with main sexual partners in sexual health promotion interventions. In past work, interventions that target self-esteem and communication self-efficacy have proven successful at increasing condom use and decreasing the presence of sexually transmitted infections among at-risk African American women (see e.g., Salazar et al., 2005). The present findings indicate that another pathway to reducing sexual risk may be to target social skills in conflict situations. For example, an interventionist may work with women to decrease their use of stonewalling and aggressive behavior during conflict while training women to use constructive communication strategies such as assertive and collaborative communication behaviors. This type of training may serve to simultaneously improve mental health and decrease sexual risk as social skills, psychological factors, and sexual risk are closely intertwined. Overall, providing at-risk women with training in social skills may improve their self-efficacy to communicate with their sexual partners, as well as decrease

negative conflict interactions—both of which may serve to decrease their sexual risk and risk behaviors.

Study Contributions, Limitations, and Future Research

Because risky behaviors other than condom use are generally understudied, these results expand our understanding of the total effect that depressive symptoms, emotional dysregulation, stress, and poor social skills have on one's sexual risk. In addition, it is important to note that although the observed effects were small, they may result in significant impacts over time. Abelson (1985) claimed that small effect sizes from cross-sectional data can result in considerable influence when the variables of interest are cumulative. Because we examined social skills with a sexual partner, it is likely that the effects of their interactions develop over time, indicating that small effects are still, nonetheless, key over the course of one's relationship with their main sexual partner. Another strength of this research was operationalizing social skills in two distinct ways: women's belief in their ability to communicate and their communication skills during conflict. Future research should explore additional aspects of social skills such as emotional expressivity and social control in their relation to sexual risk and mental health for a more comprehensive understanding of the links between communication skills, mental health, and sexual risk.

The data presented here are cross-sectional and thus inhibit the ability to make causal inferences. Although the models yielded significant results, future research should gather data longitudinally to test whether depressive symptoms at Time 1 predict reduced social skills and sexual risk at Time 2. In line with this, the results showing social skills as a mediator between psychological factors and sexual risk should be interpreted tentatively due to the fact that all variables were collected at one time. Additionally, although STIs were measured with a self-collected vaginal swab specimen, other risky sexual behaviors such as consuming alcohol before sex and sex with risky partners were assessed via self-report measures and may not accurately reflect actual behaviors. Last, results reported here may not be generalizable to African American women across the United States as participants were recruited from Atlanta.

Evidence suggests that African American women's experiences with oppression, racism, and disparities put them at higher risk for mental health problems (Cokley, McClain, Enciso, & Martinez, 2013; Greer & Chwalisz, 2007). The findings reported here highlight the important role social skills play in connection between depressive symptoms, stress, emotional dysregulation, and sexual risk among African American females. While depression, stress, and emotional dysregulation are distinct psychological factors, the results showed that all three factors are associated with poorer safer sex communication self-efficacy and elevated use of destructive conflict tactics. Based on this, future research should continue to explore symptoms that are common to numerous psychological states in order to more fully understand the relationship between mental health and communication skills. Ultimately, this line of research can further expand the social skills deficit hypothesis, as well as help prevent risky sexual behaviors in vulnerable populations.

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Table 1

Zero Order Correlations

Variable	1	2	3	4	5	6
1. Depression	-					
2. Interpersonal Stress	0.43**	-				
3. Emotional Dysregulation	0.43**	0.39**	-			
4. Sexual Communication Self-Efficacy	-0.30*	-0.25**	-0.29**	-		
5. Destructive Conflict Tactics	0.41**	0.40**	0.37**	-0.20**	-	
6. Sexual Risk Index	0.28**	0.22**	0.29**	-0.21**	0.28**	-

* $p < 0.05$,** $p < 0.001$ level.