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An Exploratory Study of Trauma and Religious Factors in Predicting Drinking Outcomes in African American Sexual Assault Survivors

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Abstract

This exploratory study examined the relationships between religious factors, trauma histories and life satisfaction to alcohol-related outcomes in adult sexual assault survivors. A mail survey was administered to a community sample of African American survivors (N = 836) in the Chicago metropolitan area. Hierarchical regression analyses showed that for non-religious women, interpersonal trauma was related to greater frequency of heavy drinking. For moderately religious women, interpersonal and contextual traumas were related to more frequent heavy drinking. For highly religious women, religious coping was related to less frequent heavy drinking. Implications are drawn for research and treatment of female survivors.

Trauma is a significant part of African American women's lives, yet little attention has been paid to how such women cope with their experiences of trauma and whether religion, a common source of strength in the African American community, helps such women recover. Spirituality and religiosity have been identified as key components of women's overall physical health and mental health. A recent U.S. Gallup Poll indicated that Americans described themselves as 50% "religious," while another 33% voiced they are "spiritual but not religious" (11% said neither and 4% said both, Gallup Jr., 2003). The 2013 U.S. Gallup reported that 87% of people believed in God—with 90% believing in God or a universal spirit. Many researchers have tried to define spirituality and religiosity and their relationships to well-being. Krentzman, Farkas, and Townsend (2010) defined religiousness as "nondenominationally as those public and private practices traditionally associated with institutional worship" (p.131). These practices can include service, prayer, meditation, reading scripture and other similar activities. Smith (2004) notes that spirituality is "a broader parameter, which has less to do with the worship of one particular God and more to do with our perceived relationship and understanding of those forces considered higher than ourselves" (p. 232).

Religious coping after sexual assault has been an emerging topic specifically with African American Women (AA) sexual assault survivors. The growing literature has mostly focused on religiosity as a protective factor against post-assault psychological symptoms, but not necessarily in relationship to alcohol outcomes in African American victims. Bryant-Davis

et al. (2011) found that African American sexual assault survivors with greater social support were less likely to endorse the symptoms of depression and PTSD. Conversely, increased use of religious coping was related to greater endorsement of depression and PTSD symptoms. Ahrens et al. (2010) found that African American sexual assault survivors were more likely than survivors of other ethnicities to use both of positive and negative religious coping. Positive religious coping was related to greater psychological well-being and lower levels of depression, whereas negative religious coping was related to greater depression regardless of ethnicity. Even though a few studies have investigated sexual assault and spirituality of African American women, multiple studies have explored intimate partner violence and spirituality in African American women. We now review these studies.

Religion, alcohol use and substance use

In the arena of intervention, prevention, substance abuse, and alcohol—research has shown an inverse relationship between spirituality and religiousness and drinking and using drugs (Kendler, Garder, & Prescott, 1997). The literature has shown that spirituality and religiosity tend to increase with substance abuse treatment (Piedmont, 2004). Also, specific spirituality intervention programs have positive effects on substance abuse outcomes (Arnold, Avant, Margolin, 2005; Sterling et al., 2006). Lastly, participants in these programs have expressed concerns about spirituality/religiousness and favor spiritual interventions (Galanter, Goldfarb, McGowell, Lifeshutz, 1996; Farkas, Krentzman, Townsend, 2010).

Bazargan, Sherkat, and Bazargan (2004) investigated the relationship between both religious beliefs and religious participation on a variety of indicators of alcohol use and misuse among inner city Hispanics and African Americans in Los Angeles. Religious factors like church attendance with a single item indicating the frequency of attendance. First, bivariate results showed that religious participation was significantly higher among subjects who do not drink before treatment at the emergency room. Religious participation also had a significant impact on the relationships between spirituality, personal religiosity, and religious coping styles with alcohol use or abuse

Spirituality, Victimization and African Americans

Spirituality and religiosity have been deemed as a burning torch for the African American community. Research cannot examine these issues without considering the importance of African American culture. The basis of survival for many African Americans intertwines with their spirituality. Potter et al. (2007; 1991) states that spirituality and practice are important tools for African American in coping with adversities. Religious Black institutions are not only for devout enrichment but for “bonding” as well (Potter, 2001). Using the National Survey of Black Americans (NSBA), Taylor et al (2004), reported that fewer than 10% of Black Americans reported that they have not attend religious services as an adult except for wedding and funerals. However, even without non-religious participation, about 80% of black Americans report that they pray almost every day. Over two-thirds (69.9%) of African Americans indicate that they were both spiritual and religious, 3.1% were spiritual only, 6.7% were religious only, and 20.6% indicated that they were neither spiritual nor religious (Taylor et al., 2004).

Provision of religious/spiritual resources may be essential for some sexually assaulted African American women to have a successful recovery after being victimized. In a study of 48 urban African American, 39 rural African American, 43 urban White, and 39 rural White women in five U.S regions, Short et al., (2004) showed that in comparison to battered White women, battered Black women tend to rely on prayer and religion (in addition to family and friend support) as a primary support in coping with the abusive relationship. The lack of communication between violence against women prevention services and faith-based communities/services can lead to a less constructive healing process for survivors. According to Taylor et al. (2004) African American religious traditions and spirituality are significant coping mechanisms for African Americans in dealing with traumatic experiences and during mourning periods. Therapists do not necessarily need to become experts in bible studies but “it is sufficient to know to ask what messages of hope clients have received through their faith or spirituality” (Franklin, 2010, p. 989).

Gillum, Sullivan and Bybee (2006) used a community sample of 151 battered women to investigate the extent to which battered women’s involvement with spirituality and faith communities positively affected their depression, quality of life, social support, and self-esteem. The majority of the women were non-Hispanic White women (45% of the sample), followed by African American women (38% of the sample). The results of this study indicated that religious involvement appears to promote greater psychological well-being for domestic violence survivors, including greater quality of life and decreased depression.

Trauma history and drinking outcomes

Studies have shown that trauma history is associated with greater risk of drinking for sexual assault survivors—thus it is important to include trauma variables when investigating African American women's drinking (Ullman et al., 2005; Kaysen et al., 2007). Existing research on alcohol and religiosity may not generalize to African American women victims. In terms of trauma and problem drinking, a recent study examined the relationship between trauma history, substance-related coping, posttraumatic stress disorder (PTSD), problem drinking, and substance abuse in adult female sexual assault survivors. Structural equation modeling was used to examine the associations of childhood sexual abuse and other traumatic life events with problem drinking and drug abuse and mediators of victims’ use of substances to cope and PTSD symptoms following assault (Ullman, Relyea, Peter-Hagene, & Vasquez, 2013). The study showed that PTSD and substance use coping completely mediated the effects of traumatic events on problem drinking and partially mediated the trauma - drug use relationship. The results also indicated that separating trauma types is important to comprehend the pathways through which trauma histories are associated with problem drinking and drug use.

Current Study

Bryant-Davis (2011) and Ahrens et al.'s (2010) studies showed the importance of religious coping in predicting PTSD in sexual assault victims, but did not examine problem drinking. Thus, the current study builds on past work by examining religious coping, core beliefs, and trauma history variables in relationship to African American women's problem drinking

outcomes, and examines these relationships within survivor subgroups varying in religiosity. The current study aims to expand knowledge by examining how trauma and religious constructs predict differences in frequency of heavy drinking and drinking to cope with distress in African American women sexual assault survivors. Measures of interpersonal trauma and contextual trauma were examined in relationship to frequency of drinking and drinking to cope with distress due to sexual assault. The present study is significant in filling a gap in the literature regarding African American women sexual assault survivors' recovery. While research has been conducted on African American women and intimate partner violence, little work has examined sexual assault survivors, religious coping, and drinking. Thus, this study expands the literature by creating subgroups of religious women and examining trauma exposure, religious coping, and life satisfaction in relationship to drinking. Although, research has been done on African Americans and religiosity/spirituality, coping mechanisms, substance abuse, and prevention and intervention (Porter et al., 2007, 1991; Franklin, 2010; Gillum, Sullivan, & Bybee, 2006), little research has examined African American women sexual assault survivors and heavy drinking and use of alcohol as a coping mechanism. Previous research has explored various aspects of spirituality/religiosity and alcohol use, but there is a gap in understanding how trauma and other religious constructs relate to alcohol use in African American sexual assault survivors. The current study is exploratory in nature and examines constructs of spirituality/religiosity that have not been previously explored in African American sexual assault survivors and how they relate to alcohol outcomes. Based on past research, we expect that African American women sexual assault survivors who rely more on spirituality/religiosity as coping mechanisms will drink less heavily and be less likely to use alcohol as a coping mechanism. We also expect women with interpersonal and contextual traumas to drink heavily more frequently and rely more on drinking to cope. Finally, we expect survivors with strong religious core beliefs and greater life satisfaction will have better alcohol outcomes (e.g., less frequent heavy drinking, less use of drinking to cope).

Method

Sample

The participants in this study were a volunteer sample of 836 African American women from the Chicago metropolitan area who had an unwanted sexual experience at the age of 14 or older. Women ranged in age from 18 to 71 at the time of the survey ($M = 31.1$, $SD = 12.2$). Most assaults were by known perpetrators (71%), whereas 29% were by strangers. The sample was well-educated (44.5% some college; 21.7 % college graduate or beyond, 19.9% high school or GED, 13.6% less than 12th grade). In terms of religious affiliation, 34.2% of women identified as Christian, 24.5 % Other, 23.3% Spiritual, 6.7% Catholic, 4.6% multiple religions, 4.3 % Protestant, .9% Buddhist, .5% Muslim, .5% Agnostic, .4% Jewish, and .2% Atheist.

Procedure

Data were collected over one year from a sample of women volunteers recruited from the community through advertisements (both online and print), fliers posted at community agencies serving women and survivors of violence, and fliers at local colleges, universities,

businesses catering to women (e.g., women's bookstores, nail and hair salons), and/or referrals from other participants. In order to participate, the women were screened for eligibility during an initial phone call to the study office using the following criteria: a) they had an unwanted sexual experience at the age of 14 or older, b) were 18 or older at the time of participation and c) had told someone previously about their unwanted sexual experience. Even, if they were not eligible to participate, women were sent a list of community resources. For those who qualified and were interested, we sent out packets containing the survey, an informed consent document, a list of community resources, and a stamped return envelope for the completed survey. Women were then sent \$25 after returning their completed survey. The response rate for the study was 85%. All documentation and procedures were approved by the University of Illinois at Chicago's Institutional Review Board.

Measures

Traumatic life events—Traumatic event history was measured with a revised version of Goodman et al.'s (1998) Stressful Life Events Screening Questionnaire, the SLESQ-Revised, which was developed as a brief self-report measure of various traumatic events. Green et al.'s (2006) revision included child abuse and adult violence experiences, stalking (Logan, 2007) and a question was regards to neighborhood/community. “Have you ever lived in a neighborhood or community where you felt threatened or your life was in danger?” This measure is scored as the sum of events experienced by each participant (excluding child and adult sexual assault both assessed by revised SES). This instrument had a good test-retest reliability (median Kappa=.73), and an adequate convergent validity (with a lengthier interview) with a median Kappa of .64. Interpersonal and contextual traumas have been deemed as unique and may have different effects (Ehring & Quack, 2010; Green et al., 2000). Based on a principal components factor analysis with promax rotation, we disaggregated traumas into *interpersonal trauma* (e.g., stalking, child abuse, abuse by a romantic partner, abuse by someone else, emotional abuse), and *contextual trauma* (e.g. military war zones, dangerous neighborhood, being threatened with a weapon, been in other frightening situations, force used against you in robbery, close friends died from homicide, witnessed death)” (Ullman et al., 2012). Descriptives were as follows for contextual traumas: $M = 2.36$, $SD = 1.55$ and interpersonal traumas: $M = 2.98$, $SD = 1.50$.

Religious coping—The COPE has been a popular measure in studies of stressed populations and has adequate internal consistency reliability (all subscale alphas .60 except one) and test-retest reliability ($rs = .46$ -.60) (Carver, 1997). Two items were chosen from Brief Cope (Carver, 1997), a shortened version of the original COPE (Carver, Scheier & Weintraub, 1989), to assess participants' use of religion in coping (i.e., I tried to find comfort in my religion or spiritual belief; I prayed or mediated). Subjects responded on a scale ranging from 0 (I didn't do this at all) to 4 (I do this a lot). Each 4-point Likert scale is computed as an unweighted sum of responses to the two items that make up each subscale. The religious coping subscale has an internal consistency reliability Cronbach's $\alpha = .78$ (Carver, 1997), and .93 for this sample. While the items are labeled as religious measures, the inclusion of spiritual belief and meditation within the scale broadens the assessment to

spiritual coping as well. Religious coping had descriptives as follows in this sample: $M = 5.69$, $SD = 2.11$.

Religious core beliefs—The Core Beliefs Inventory (CBI; Cann et al., 2010) is a 9-item inventory designed to assess the extent to which a specific event leads people to examine core assumptions about their world. Respondents indicate the degree to which they examined that core belief using a 6-point scale from 0 (not at all) to 5 (to a very great degree), and scores are reported as mean of the 9 items. This scale has been found to have good internal reliability, with Cronbach's alphas ranging from .82 to .90 across three studies (Cann et al., 2010) and a test-retest reliability across 2 months of .69 (Cann et al., 2009). In the current study, we selected the 1 item from the CBI that assesses religious core beliefs (e.g., this experience has caused me to seriously examine my beliefs about my spiritual or religious beliefs). This question was used to assess how the experience of belief about spirituality or religiosity has impacted the core belief system. The present sample had descriptives for this item of: $M = 3.0$, $SD = 1.89$.

Life satisfaction—Life satisfaction was assessed with a widely used 5-item Satisfaction with Life Scale (SWLS) which has good reliability and validity (Diener et al., 1985), including internal consistency of .87, two month test-retest reliability of .82, evidence of construct validity shown by correlations with other subjective well-being measures, and expected correlations with personality characteristics (Pavot & Diener, 1993). In this section of the questionnaire, participants were asked how they felt recently (e.g. In the past 12 months, I am satisfied with my life). Internal consistency reliability for our sample was Cronbach's α of .84; $M = 3.10$, $SD = 1.42$.

Frequent heavy drinking—A question from Wilsnack et al. (1991) assesses frequency of heavy episodic drinking: 1) "During the last 12 months, how often did you have 4 or more drinks of wine, beer, or liquor in a single day? (That would be a bottle or more of wine, more than 2 quarts of beer or a half a pint or more of liquor). The question had 5 response categories ranging one to three times a month to everyday and descriptives were: $M = 2.49$, $SD = 1.32$.

Drinking to cope—Cooper et al.'s (1995) drinking to cope with distress 5-item subscale from their Coping and Enhancement Motive subscales (Cooper, 1994) was used to assess this particular form of avoidance coping, which is central to this study. Respondents had to rate the relative frequency of drinking to manage or cope with negative emotions on the same 4-point scale ranging from 1 (I didn't do this at all) to 4 (I did this a lot) for each item. This measure had descriptives of: $M = 1.18$, $SD = .99$ and internal consistency reliability was Cronbach's $\alpha = .77$.

Results

First, we ran correlations between all study variables: interpersonal trauma, contextual trauma, religion to cope, religious core beliefs, life satisfaction and the dependent variables: frequent heavy drinking, and drinking to cope to see how they were all related (see Table 1). As we expected, interpersonal and contextual traumas were related to greater frequency of

heavy drinking and drinking to cope. Contrary to expectation, neither religious coping nor core religious beliefs were related to drinking outcomes, except core religious beliefs had a small significant relationship with more use of alcohol to cope. As predicted, life satisfaction was related to less frequency of heavy drinking and less drinking to cope.

Stepwise regression analyses

To examine the combined influence of the independent variables on the dependent variables, we first ran stepwise multiple regression analyses on the full sample of Black women. In step 1, contextual and interpersonal traumas were entered. In step 2, religious coping and core religious beliefs were entered. In step 3, life satisfaction was entered. Dependent variables were frequency of heavy drinking and use of alcohol to cope. In the first regression predicting frequency of heavy drinking, interpersonal and contextual traumas were related to more frequent heavy drinking. Religious core beliefs and religious coping were not significant, whereas, life satisfaction was related to less drinking to cope (results not shown). In the second regression predicting drinking to cope, interpersonal trauma was related to more drinking to cope, but contextual trauma, was not significant. Religious core beliefs were related to greater use of alcohol to cope, whereas religious coping was not significant. Greater life satisfaction was related to less drinking to cope (results not shown).

Regressions by religiosity subgroups

Previous literature has shown level of religiosity influences how women cope with traumatic events (Parks, 2010). Therefore, we ran parallel stepwise regression models to those run for the full sample separately for women who said they were: 1) not religious ($N = 111$, 13.4%), 2) moderately religious ($N = 462$, 55.7%) and 3) very religious ($N = 257$, 33.1%). Results from the third step with all predictors entered into models are shown in Tables 2 and 3.

Frequency of heavy drinking—First, three models with the same 3 blocks of predictors entered stepwise were run predicting frequency of heavy drinking (see Table 2). For non-religious women, as expected, interpersonal trauma was significantly related to greater frequency of drinking, $\beta = .02$, ($p = .03$), but contextual trauma was not significant, $\beta = .31$, ($p = .94$). However, for non-religious women, religious core beliefs and religion to cope were not significant. Life satisfaction was also not significantly related to drinking. For moderately religious women, interpersonal $\beta = .17$, ($p = .04$) and contextual $\beta = .15$, ($p = .05$) traumas were related to greater frequency of heavy drinking. Religious core beliefs and religious coping were nonsignificant. Life satisfaction was related to less frequent heavy drinking, $\beta = -.163$, ($p = .019$). For very religious women, contrary to expectation, interpersonal and contextual traumas were unrelated to frequency of heavy drinking. However, use of religion to cope was related to less frequent heavy drinking, $\beta = -.25$, ($p = .023$), and religious core beliefs and life satisfaction were unrelated to drinking.

Drinking to cope—Second, three parallel models with the same 3 blocks of predictors entered stepwise were run predicting drinking to cope (see Table 3). For nonreligious women, contrary to expectation, interpersonal, $\beta = 0.16$, ($p = .92$) and contextual traumas $\beta = .26$, ($p = .09$) were unrelated to drinking to cope. Religious core beliefs, religious coping, and life satisfaction were nonsignificant. For moderately religious women, interpersonal

trauma was related to greater drinking to cope $\beta = .27$, $p < .001$, whereas, contextual trauma was nonsignificant. Religious core beliefs and religious coping were also nonsignificant. Life satisfaction was related to less drinking to cope $\beta = -.23$, $p < .001$. For very religious women, as expected, interpersonal trauma was related to greater drinking to cope, $\beta = .22$, ($p = .01$), but contextual trauma was nonsignificant. Religious core beliefs were related to greater drinking to cope $\beta = .19$, ($p = .01$), but religious coping was nonsignificant. Life satisfaction was related to less drinking to cope, $\beta = -.16$, ($p = .031$).

Control variables—Finally, in order to assess the impact of demographics on relationships studied, we ran regression analyses with covariates. Adding covariates of age, education, and income into the original regression analyses showed little to no differences in the results. However, we noticed the sample size of the non-religious women was too small especially for frequency of drinking. For very religious women, the small sample size only pertained to frequency of heavy drinking and not alcohol to cope. The subsample large enough for use of covariates was somewhat religious women versus very religious women. Based upon these observations, we decided to report the demographic differences between the three groups by running Chi square and one-way Anova. Chi square tests revealed no differences between the groups in income. Chi square tests also revealed some complicated results indicating that somewhat religious women tended to have either more high school or some college, whereas, very religious and not all religious women tended to have some college or be college graduates. A one-way Anova showed religiousness increases with older age.

Discussion

This study was the first to examine the role of trauma histories, religious factors and life satisfaction in relationship to African American women's drinking outcomes following sexual assault. Building on past research (Ahrens et al., 2010; Bryant-Davis et al., 2011) showing positive effects of religious coping on mental health outcomes post-assault, we found that positive religious coping was related to less frequent drinking in African American sexual assault victims. By examining religious subgroups of survivors, we found that very religious women tended to drink less frequently and that their religious core beliefs were related greater drinking to cope. Thus, our study went beyond prior work on sexual assault recovery by examining correlates of various drinking-related outcomes in different religious subgroups of women. Consistent with previous studies (Parks & Levenson, 2002), our study indicated that religious coping was related to less drinking to cope in survivors, while past studies showed that greater use of religious coping was negatively related to depression in survivors (Ahrens et al., 2010; Bryant-Davis et al., 2011). Our findings highlight the need for more research on African American women and negative religious coping, as our study assessed positive forms of religious coping only. Very religious women did less drinking to cope, consistent with Ahrens et al.'s (2010) findings showing that positive religious coping was associated with better psychological well-being and less depression.

Past research has shown that trauma histories are related to drinking in sexual assaults survivors (Ullman et al., 2005). African American women often rely on religious traditions,

spirituality, and core values as coping mechanisms (Adebimpe, 2004; Bryant Davis et al., 2012, Franklin, 2010; Short et al., 2004; Taylor et al., 2004). In order to build on a growing body of literature, this study sought to examine trauma histories and religious factors in relationship to drinking outcomes in African American sexual assault survivors.

Relationships between interpersonal and contextual traumatic events, religious constructs (e.g., religious core belief, religious coping) and life satisfaction were examined in a sample of 836 African American sexual assault survivors from a larger study of recovery from sexual assault. Based on past findings of the relation of traumatic events to drinking in African American women (Davis, 1997; Johnson, 2006; Ullman et al., 2011; Ullman, Relyea, Peter-Hagene, & Vasquez, 2012), we expected that women with more interpersonal trauma and contextual trauma would drink heavily more frequently and rely more on drinking to cope. Results indicated interpersonal and contextual traumas were significant for somewhat religious women in relation to frequent heavy drinking and interpersonal was significant very religious women in relation to drinking more to cope women and nonsignificant for not religious women. Little past research exists on the impact of level of religiosity in relation to interpersonal trauma, contextual, and alcohol use in African American sexual assault victims, so research is needed to investigate these constructs and replicate these results. Past research has indicated that the degree of spirituality/religiosity is an important tool for dealing with adversities for African Americans (Potter et al., 2007; 1991) and that prayer and religion were very important to African American women (Potter et al., 2007). Though the literature speaks of the importance of religiosity/spirituality to African women, it does not specifically address the coping styles of non-religious women. Importantly, our findings varied across non-religious, somewhat religious, and religious women. Based on past research, it makes sense for women to respond differently to sexual assault based on their religious background and for more religious women to use religious coping more than other survivors. Thus, our study analyzed these three groups separately.

Key Findings

For non-religious, as we hypothesized, interpersonal trauma was the only predictor of frequency of heavy drinking, whereas other variable were all unrelated to both drinking outcomes. Tonigan et al.'s (2002) analyzed longitudinal data from Project MATCH outpatient (n = 952) and aftercare (n = 774) samples and found that abstinence and reduction of drinking via Alcoholics Anonymous were successful, regardless of participants' belief in God for both men and women. Given that religious variables did not predict drinking outcomes for this group, nonreligious women must have other ways of coping not involving religious practices.

For somewhat religious women, the results were mixed for frequency of heavy drinking and drinking to cope dependent variables. Interestingly, interpersonal and contextual traumas were both related to greater frequency of heavy drinking, but not to drinking to cope with distress following sexual assault. Given that past research indicates that level of religiosity plays a role in how sexually assaulted women cope (Bryant-Davis et al., 2011), we expected that somewhat religious women might show some effects of religious beliefs and coping on drinking outcomes. However, religious core beliefs and use of religion to cope were both

nonsignificant in predicting drinking outcomes. The nonsignificant results could also be due to the low number of women in the somewhat religious group. Although there was nonsignificance for the religious constructs in the present study, future research should explore other religious constructs with a larger sample of women varying in religiosity and religious practices. Life satisfaction was significant as predicted with women drinking heavily less frequently and using less drinking to cope when they were satisfied with their lives. Consistent with our finding, Swain et al. (2012) indicated that alcohol and cannabis abuse/dependence symptoms were significantly related to lower levels of life satisfaction. Their results also showed a reduced association with substance abuse and life satisfaction, when concurrent factors such as sexual victimization, relationship problems, depression and work hours were added to analyses. Typically life satisfaction is assessed as an outcome, but it is possible that drinking could also contribute to life satisfaction, a possibility that should be explored with longitudinal data.

Past work has shown that in comparison to battered white women, battered African American women tend to rely on prayer and religion more as a primary support in coping with abusive relationships (Short et al., 2004). For religious women in the present study, greater religious core beliefs were related to less frequency of heavy drinking, but not to drinking to cope following sexual assault. Conversely religious coping was related to less drinking to cope, but not to frequency of heavy drinking. Very religious women were still using both religious resources, but they impacted different drinking outcomes, suggesting the importance of considering multiple unique religious constructs and multiple drinking constructs in future research aimed at understanding how these two factors are related.

Consistent with our results, Gillum, Sullivan and Bybee (2006) found that religious involvement appears to promote greater psychological well-being for domestic violence survivors, including greater quality of life and decreased depression. Our study indicated that life satisfaction was related to less drinking to cope, whereas Krentzman et al (2010) found that religiousness and purpose in life were both related to favorable drinking outcomes for Whites and Blacks. For religious women, social support could also be a primary factor in coping with sexual assault experiences. The Black church has had a significant impact on well-being of Blacks dealing with adversities. For example, past research has indicated that church involvement is related to greater social support for members of the African American community (Franklin, 2010); perhaps because the church has often been considered to be an extended family, providing support and help in times of trouble (Lincoln & Mamiya 1990; Taylor et al., 2004). In support of our findings, African American religious tradition and spirituality are significant coping mechanisms for African Americans in dealing with traumatic experiences and mourning periods (Taylor et al., 2004). This suggests that researchers and therapists should consider the church when developing and evaluating prevention and treatment/intervention programs.

One of the major strengths of this study was the large sample of women that participated all of whom had an unwanted adult sexual assault experience. The sample was not representative, however, and thus findings cannot be generalized to African American women victims. Although, our study included various religious constructs, the measures were limited single or only a few-item measures of religiosity and spirituality constructs.

Future research should use comprehensive measures of religion-related constructs like religious coping, religious core beliefs, and religion-related support (Bryant-Davis et al., 2011; Krentzman et al, 2010).

Our findings build upon previous studies of religiosity and recovery of African American sexual assault survivors. Despite study limitations, these results go beyond past research to enhance our understanding of the relationships between trauma, satisfaction, and alcohol outcomes in different religious subgroups of female African American sexual assault survivors. Future research should explore different constructs of relevance to non-religious women to determine which forms of coping and beliefs impact their drinking outcomes. Past research has shown that African Americans without a religious affiliation have lower spirituality and religiosity than those who identify themselves as religious and are associated with specific denominations (Taylor, Chatters, and Jackson, 2007).

Therefore future studies should also take into consideration religious participation and religious denomination. Past work has shown that religious participation, affiliation, denomination, has significant and important impacts on the relationships of spirituality, personal religiosity, and religious coping styles with alcohol use or abuse (Bazargan, Sherkat, and Bazargan, 2004). Further research could explore more comprehensive religious coping constructs with African American women sexual assault survivors, because past research shows that religious coping relates to PTSD in African American sexual assault survivors (Bryant-Davis et al., 2011). This study shows the important role of level of religiosity in understanding how trauma histories and other religion-related constructs relate to drinking outcomes in an understudied group of survivors. Future work is needed to replicate these findings and to explore variation among African American survivors in their recovery from sexual assault. These results should be incorporated into counseling and other programmatic interventions to help African American women survivors of sexual assault in several ways. Assessing victims' trauma histories and providing appropriate support for those who are religious/spiritual to use that resource to cope adaptively is indicated, as well as providing referrals to substance abuse treatment and community resources (e.g., treatment programs, AA etc.).

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Table 1

Correlations among study variable

<i>Measure</i>	1	2	3	4	5	6	7
1. Interpersonal trauma	-	*.51	*.10	*.15	*-.23	*.25	*.31
2. Contextual trauma		-	.07	.07	*-.21	*.23	*.20
3. Religious coping			-	*.21	*.05	*.04	*-.05
4. Core religious beliefs				-	-.07	*.00	*.11
5. Life satisfaction					- - -	*-.17	*-.26
6. Frequency of heavy drinking						---	*.51
7. Drinking to cope							---

Note.

*
 $p < .05$

Table 2

Predicting Frequency of Heavy Drinking for African American Sexual Assault Survivors Religiosity Subgroups

Subscales	β Not at religious	p	β Somewhat religious	p	β Veryreligious	p
Interpersonal trauma	.02	.03	.17	.04	.19	.10
Contextual trauma	.31	.17	.15	.05	.13	.27
Religion to cope	-.07	.66	-.01	.89	-.25	.02
Religious core beliefs	.13	.47	-.06	.41	-.09	.39
Life satisfaction	-.14	.44	-.16	.02	-.15	.18
F	1.45		6.04		2.99	
df	32		199		75	
p value	.23		.00		.02	
Adjusted R ²	.06		.11		.11	

Table 3

Predicting Drinking to Cope for African American Sexual Assault Survivors Religiosity Subgroups

Subscales	β Not at religious	p	β Somewhat religious	p	β Very religious	p
Interpersonal trauma	.02	.92	.27	.00	.22	.01
Contextual trauma	.26	.09	.03	.58	.01	.87
Religion to cope	-.16	-.19	.04	.43	-.04	.62
Religious core beliefs	.14	.27	.00	.95	.19	.01
Life satisfaction	-.21	.10	-.22	.00	-.16	.03
F	2.67		12.75		5.29	
Df	58		314		160	
P	.03		.00		.00	
Adj R ²	.12		.16		.12	