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Effects of a Culturally Informed Intervention on Abused, Suicidal African American Women

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Abstract

Background—This study examined 1) the relative efficacy of a culturally-sensitive empowerment group intervention (Nia) aimed at increasing three protective factors—self-esteem, hopefulness, and effectiveness of obtaining resources—versus treatment as usual (TAU) for low-income, abused African American women who recently had attempted suicide and 2) the impact of participants' readiness to change with regard to their abusive relationship and suicidal behavior on their levels of each protective factor in the two conditions.

Methods—The sample included 89 African American women who reported intimate partner violence (IPV) exposure and a recent suicide attempt.

Results—Multivariate general linear modeling revealed that those in Nia showed greater improvements in self-esteem, but not in hopefulness or effectiveness of obtaining resources. However, significant interactions emerged in which participants that were “less ready to change” (i.e., earlier in the stages of change process) their IPV situation and suicidal behavior endorsed

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greater levels of hopefulness and perceived effectiveness of obtaining resources, respectively, following Nia.

Conclusion—Findings suggest that abused, suicidal African American women who are more reluctant initially to changing their abusive situation and suicidal behavior may benefit from even a brief, culturally-informed intervention.

Keywords

Protective factors; African American women; suicide; intimate partner violence; hopefulness; self-esteem; effectiveness of obtaining resources; stages of change

Intimate partner violence (IPV), an epidemic in the United States (U.S.) and worldwide (Alhabib, Nur, & Jones, 2010), refers to sexual, psychological/emotional, and/or physical violence perpetrated by a current or former romantic partner. Although IPV cuts across race, socioeconomic status, and educational level (Cho, 2012), it is a major concern in certain communities. Epidemiological data indicate a lifetime prevalence rate of IPV at 29.1% among African American women. Compared to women from other racial/ethnic backgrounds, African American women are disproportionately exposed to IPV, particularly in its most severe forms (Cho, 2012; West, 2004), and are at greater risk of dying from IPV-related incidents (Azziz-Baumgartner, McKeown, Melvin, Dang, & Reed, 2011). African American women are most vulnerable to IPV when economic conditions are taken into account (West, 2004). A chronic stressor in the lives of the women it impacts (Bogat, Levendosky, Theran, Von Eye, & Davidson, 2003), IPV poses risks to psychological well-being (Beeble, Bybee, & Sullivan, 2010; Montero et al., 2011). The psychological impact of IPV may be more staggering for low-income African American women than for their Caucasian or Latina counterparts (Cho, 2012). Previous studies have identified a number of correlates of IPV among African American women including low levels of self-esteem, feelings of hopelessness, and a lack of confidence in securing financial, housing, or child care resources (Ford-Gilboe et al., 2009; Huang & Gunn, 2001; N. J. Kaslow et al., 2002; Sutherland, Sullivan, & Bybee, 2001).

One of the most concerning psychological outcomes associated with IPV exposure is suicidal behavior, including ideation, gestures, attempts, and completions (McLaughlin, O'Carroll, & O'Connor, 2012; Rees et al., 2011). IPV is considered to be a consistent risk factor of suicidal behavior among women, even after controlling for mental health disorders (Afifi et al., 2009; K. M. Devries et al., 2013; K. Devries et al., 2011; Meadows, Kaslow, Thompson, & Jurkovic, 2005). Afifi et al. (2009) found that females exposed to IPV were 7.5 times more likely than those not exposed to IPV to experience suicidal ideation, adjusting for sociodemographic variables, any psychiatric disorders, and child and physical sexual abuse. Moreover, Devries et al. (2011) found that the prevalence of lifetime suicide attempts ranged from 0.8 to 12.0% among women with IPV exposure. Consistent with findings from other racial/ethnic groups, African American women who experience IPV are at increased risk for attempting suicide (N. J. Kaslow et al., 2002; Leone, 2011). For example, Leone (2001) found that about 30% of the African American women in their sample who experienced IPV reported suicidal behavior compared with 13% of women who reported no exposure to partner violence. This association is pertinent to the current study,

as the sample includes women who in the past year were exposed to IPV and attempted suicide.

Although abused women are at an increased risk for suicidal ideation and attempts, exposure to IPV alone does not sufficiently explain the IPV-suicide link, as not all abused women become suicidal (N. J. Kaslow et al., 2002; Meadows et al., 2005). For example, low-income African American abused women with high levels of hopefulness, spirituality, self-efficacy, adaptive coping skills, social support from family and friends, and effectiveness in obtaining resources are much less likely to attempt suicide when compared to their counterparts without these protective factors (N. J. Kaslow et al., 2002; Meadows et al., 2005). Thus, interventions must focus on protective factors that may mitigate abused women's likelihood of attempting suicide (Hamdan et al., 2012). A few lines of research suggest that the link between IPV and suicidal behavior may be weakened in the presence of the following intrapersonal protective factors: *high self-esteem, hopefulness, and perceived effectiveness of obtaining resources* (N. J. Kaslow et al., 2002; Leone, 2011; Meadows et al., 2005; Reviere et al., 2007).

Self-esteem describes an individual's overall sense of self-worth or personal value. A prior investigation found a strong linear relationship between self-esteem and suicidal behavior such that increases in the seriousness of suicidal behavior were associated with decreases in self-esteem (A. H. Thompson, 2010). Other investigations suggest that high self-esteem is a protective factor for hopelessness and suicidal ideation (Chioqueta & Stiles, 2007; Lieberman, Solomon, & Ginzburg, 2005). Lieberman et al. (2005) also found that self-esteem moderated the association between distress and suicidal ideation insofar as the link between distress and thoughts of suicide was attenuated among individuals with higher levels of self-esteem. Since research suggests that women with IPV are significantly more likely to experience lower self-esteem compared to women without IPV (Zlotnick, Johnson, & Kohn, 2006), interventions that aim to increase self-esteem among abused women may buffer against some of the negative sequelae of IPV. Abused women with higher levels of self-esteem may be less inclined to attempt suicide because they feel they deserve to be in a healthier, loving relationship and may feel less helpless about changing their abusive situation (Edwards et al., 2006). Thus, self-esteem may be a unique protective factor against suicidal behavior for low-income, abused African American women, which can be capitalized upon in intervention efforts.

Hopefulness, typified by its anticipatory nature, reflects the joy and faith one possesses about the prospect of a desired impending event (Baumgartner, Pieters, & Bagozzi, 2008). It may bolster one's ability to cope with stressors, including those that affect psychological or physical health (Goldsmith, Pellmar, Kleinman, & Bunney, 2002), and subsequently serve as a protective factor against suicide attempts in minority populations. A previous study found that hope is uniquely associated with non-attempter status among low-income, abused African American women (Meadows et al., 2005). Thus, abused women who endorse higher levels of hopefulness, despite their involvement in an abusive relationship, may be less likely to attempt suicide as a means of ending their situation (Meadows et al., 2005).

Effectiveness of obtaining resources is defined as an individual's perception of how well she/he can provide for her/him self with regard to shelter, healthcare, financial security, material goods, schooling, employment, child care, parenting skills, transportation, social support, and legal aid (C. Sullivan, Tan, Basta, Rumptz, & Davidson, 1992). This construct buffers against negative outcomes among abused African American women because access to adequate resources is of particular importance in decreasing suicidal behavior (M. Thompson, Kaslow, Short, & Wyckoff, 2002). One study revealed that women who perceived themselves to be more effective at obtaining resources were 38% less likely to have attempted suicide than women who perceived themselves to be less effective in this domain (Meadows et al., 2005). Consequently, battered women who believe in their ability to garner material, legal, social, and supportive resources may be less likely to turn to suicide as a way to cope with their situation.

There is a dearth of information regarding the effectiveness of current interventions for abused women (Wathen & MacMillan, 2003) as a result of methodological limitations and inadequate evaluation of current treatments (e.g., improper or inaccurate documentation of violence exposure, high attrition rates in studies, and poor outcome measures). Specific treatment interventions for IPV include women's shelters, court-ordered interventions for batterers and their families, safety assessment and planning, and the use of police and law enforcement services (Stover, 2005; Wathen & MacMillan, 2003). However, there are no current interventions specifically designed for abused African American women. Extant literature on IPV suggests that low-income African American women, in particular, may be in an even more difficult situation following abuse (Cho, 2012) relative to their Caucasian or Hispanic counterparts due to poor resources and inadequate support systems (Davis et al., 2009; Watlington & Murphy, 2006). Access to legal services, material and social resources, and healthcare are often limited for low-income women (Paranjape, Heron, & Kaslow, 2006), thus making it more difficult for a woman to extricate herself from an abusive relationship. Both limited accessibility to and/or negative experiences with IPV services—including safe houses/shelters, legal services, and law enforcement bodies—have been cited as major barriers to the receipt of services for abused African American women (Bent-Goodley, 2004; Joseph, 1997). Financial constraints and lack of transportation may preclude many women from seeking out otherwise beneficial treatment services. In addition, a lack of cultural competence in many IPV interventions may contribute to the lack of care sought out by African American women (Asbury, 1999; Bent-Goodley, 2004; Nicolaidis et al., 2010). Research has shown that low-income African American women in particular are less inclined to trust formal mental health resources and thus are more likely to seek out interventions that are more Afrocentric in nature (Nicolaidis et al., 2010; Snowden, 2001). Abused African American women tend to find traditional mental health services less helpful than do women from other racial and ethnic backgrounds, a finding particularly true for those with limited financial security (Cho & Kim, 2012). These findings suggest that it is of particular importance to develop and rigorously evaluate culturally relevant, accessible, community-based interventions for abused, low-income African American women (Davis et al., 2009).

Given that IPV increases the likelihood that low-income, African American women attempt suicide, a culturally informed empowerment-based, psychoeducational group intervention

targeted at improving psychological well-being was created (Grady Nia Project [Nia]). Nia was developed in accordance with the theory of triadic influence (Flay & Petraitis, 1994), which provides a framework of three streams of influence on the causes of behavior: intrapersonal, social/situational, and cultural/environmental. Specifically, the intervention was built on tenets of the theory of triadic influence including (a) providing access to health care, (b) increasing connectedness, (c) enhancing social skills, and (d) reducing the residual effects of trauma. Sessions were crafted to espouse the aforementioned principles by enhancing social support through group work and shared activities, increasing connectedness by introducing the women to members of community agencies, ameliorating distress associated with trauma by employing cultural and gender relevant approaches, and providing access to health care by assisting women in accessing a comprehensive mental health care system.

The group intervention also was designed to incorporate the transtheoretical stages of change model (Prochaska & Norcross, 2009) so that the women receiving the intervention could make progress in the change process and become empowered to live a violence-free life. Previous studies have shown that although validation studies of the transtheoretical stages of change model often do not specify sample ethnicity, it may nonetheless be a useful construct among African Americans in understanding a variety of behaviors (Champion et al., 2006; Sbrocco, Osborn, Clark, Hsiao, & Carter, 2012). This model suggests that change involves six stages: *precontemplation*, *contemplation*, *preparation*, *action*, *maintenance*, and *termination*. Based on research of the theoretical link between IPV and the stages of change model (Bliss, Ogleby-Oliver, Jackson, Harp, & Kaslow, 2008), abused women in the *precontemplation* stage have poor insight as to why they need to change and have little intention of changing their situation/behavior. Abused women in the *contemplation stage* intend to start the change process but are not yet ready to commit to action. During the *preparation* stage, women intend to take action in the immediate future. The *action* stage is marked by women's efforts to make concrete changes. In the *maintenance* stage, women work toward preventing a reemergence of the problem but may still experience symptoms. Women in the *termination* stage are more confident in their resolve to live a violence free life. These processes have not yet been examined in suicidal persons. Nia incorporated the transtheoretical model to enable the women to remove themselves from violent relationships if they so choose and to facilitate that process by teaching them strategies to do so. It also was used to encourage women to lead lives in which suicidal behavior was not viewed as a viable response to stress.

Our earlier investigations have demonstrated the efficacy of Nia on reducing depressive symptoms, general psychological distress, and suicidal ideation in response to IPV exposure (NJ. Kaslow et al., 2010; Zhang et al., 2013). We also uncovered that existential well-being, one's sense of purpose and meaning in life, mediated treatment effects on suicidal ideation and depressive symptoms.

Given that the IPV-suicidal gestures/behaviors linkages may be reduced in the presence of protective factors, the purpose of this randomized controlled trial was to ascertain if abused, suicidal low-income African American women's participation in Nia as compared to treatment as usual (TAU) was associated with greater levels of self-esteem, hopefulness, and

perceived effectiveness of obtaining resources. It was predicted that at post-intervention women in Nia would endorse greater enhancements in their sense of self-esteem, increases in hopefulness, and improvements in effectiveness of obtaining resources compared to those in the TAU. Further, this study explored the impact of participants' readiness to change prior to starting the intervention on their levels of hopefulness, effectiveness of obtaining resources, and self-esteem after completing the protocol. It was hypothesized that women less ready to change would evidence greater improvements with regard to the aforementioned outcome variables following participation in Nia compared to TAU.

Methods

Participants

A total of 217 women, ages 18–64, who self-identified as African American and reported IPV exposure and at least one suicide attempt within the past 12 months. Many of the women reported multiple past suicide attempts and had long-standing histories of physical, sexual, and emotional abuse that stemmed from childhood. Among these women, 89 (41%; 45 randomized to Nia and 44 randomized to TAU) participated in the post-intervention assessment, 10 weeks after the pre-intervention assessment; only data from these 89 completers were analyzed in this study. Rates of attrition for women in Nia and in TAU were 62.5% and 49.4% respectively. Demographic information is presented in Table 1. Most notably, the income of approximately 98% of the sample (based on a 12-month aggregate of individual monthly income) was below the poverty threshold of \$11,670/year for a single-person household (U.S. Department of Health & Human Services, 2014).

Procedure

Prior to initiating data collection, the university and hospital Institutional Review Boards approved the study. All who participated were treated in accordance with the American Psychological Association's ethical guidelines. Potential participants were screened and recruited from a large public, university-affiliated hospital serving an indigent, urban population in the Southeast of the U.S. Participants were either referred to the project by hospital staff when admitted because of an IPV or suicide attempt, or screened and recruited in hospital clinics if inclusion criteria were met. IPV status was determined via the Universal Violence Prevention Screening Protocol (*UVPSP*) (Dutton, Mitchell, & Haywood, 1996) and suicide status was determined by the 20-item Suicide Intent Scale (*SIS*) (Beck, Schuyler, & Herman, 1974). Potential participants were excluded if they were unable to complete the pre-treatment interview because of cognitive impairment, delirium, or acute psychosis.

Participants who met inclusion criterion based on the screen were administered pre- and post- intervention assessment batteries (23 scales) including the measures in this report: Taylor Self-Esteem Inventory, Beck Hopelessness Scale with a focus on hopefulness, and Effectiveness of Obtaining Resources Scale. The Demographic Data Questionnaire and University of Rhode Island Change Assessment Scale for IPV and Suicide respectively (*URICA-IPV* and the *URICA-S*) were administered only during the pre-intervention assessment. Once participants completed the batteries, they were debriefed, and compensated (\$20 for pre-intervention assessment, \$30 for post-intervention assessment).

Following the pre-intervention assessment, women were randomized to Nia or TAU, using a 2 (Nia) to 1 (TAU) assignment. Women in Nia participated in a culturally-sensitive group intervention led by two co-therapists—one African American and one non-African American woman. The leaders were psychology graduate students, interns, or postdoctoral fellows; at least one leader was an advanced therapist. Nia consisted of 10 weekly 2-hour group meetings. The primary intervention targets were related to the theory of triadic influence and included such factors as cognitive processes and resource mobilization. Women were paid \$10 for each group.

The treatment manual was derived from extant empirically-supported interventions and focus group data from the target population. Group sessions were informed by Afrocentric theory (Corneille, Ashcraft, & Belgrave, 2005), incorporating values such as spirituality, collectivism, transformation, and interdependence into the intervention. Specifically, Nia emphasizes the roles of strong, positive African American female mentors and heroines; uses African proverbs; and highlights the value of strong family and community bonds. For example, during session 5, which focuses on enhancing personal protective factors, the women are invited to envision and draw themselves as Goddesses. They are instructed to consider traits within themselves and/or within other African American women that they admire and to reflect those traits in their drawings. The women are then encouraged to draw upon their Goddess visualization in their daily lives. This activity employs the Afrocentric value of transformation to generate an image of courage and power where there was likely an image of weakness and oppression.

Participants randomized to the TAU group, in addition to the Nia condition, were encouraged to attend free weekly suicide and IPV support groups that were led by two study team members. Women in the TAU condition were not paid for attending sessions, however those that could not afford to take public transportation to attend support groups were often given tokens for subway/bus fare upon availability. Moreover, although they were encouraged by study team members to attend, their involvement in the support groups was entirely up to them. The support groups were hour-long, nonmanualized sessions that were non-specific in treatment orientation. Group leaders acted predominantly as discussion facilitators. All women in the control condition had access to the hospital's psychiatric emergency services that were open 24 hours, 7 days a week as well as standard psychiatric and medical care offered by the hospital. Standard care included a medical and/or psychiatric evaluation, outpatient psychotherapy, psychiatric medication management, inpatient treatment, follow-up medical care, and referrals to community agencies (battered women's shelters and suicide/IPV crisis hotlines).

Measures

Demographic Information—Standard sociodemographic information such as relationship and parental status, level of education, and income were obtained through the *Demographic Data Questionnaire* created by the authors.

Self-Esteem—The *Taylor Self-Esteem Inventory* ($\alpha = .77$ in the current sample), a 16-item instrument, measures self-esteem and the distribution of rewards and costs to self (Taylor &

Tomasic, 1996). Scores range from 0 to 128; higher scores indicate higher self-esteem. Each item is structured around eight categories: acceptance, pleasurableness, resourcefulness, regard, pridefulness, focal point, global support and cooperativeness. Respondents indicate the frequency with which the items on the scale apply to them and these items are measured on an 8-point Likert scale, ranging from 0 (never) to 8 (always). Each of the items were evaluated and refined in samples of low-income African American mothers, enhancing item variability, item-subscale correlations, item-total correlations and subscale and total scale internal reliability. The scale has good internal and test-retest reliability and validity based on positive associations with other self-esteem measures.

Hopefulness—The *Beck Hopelessness Scale* ($\alpha = .93$ in the current sample), is a self-report instrument consisting of 20 true-false items, measuring pessimism concerning negative life expectancies of one's self and future (Beck, Weissman, Lester, & Trexler, 1974). The scores were reverse coded in the current study to represent hopefulness, and the construct was named *Hopefulness*. Respondents indicate if each of the statements on the scale describes their attitude for the past week. Scores range from 0–20, in which higher scores indicate higher feelings of hopefulness. This scale has good convergent and criterion related validity and has been shown to be correlated with depression in suicidal patients in previous studies (Beck, Brown, Berchick, Stewart, & Steer, 1990; Beck, Brown, & Steer, 1989).

Effectiveness of Obtaining Resources—The *Effectiveness of Obtaining Resources Scale* ($\alpha = .74$ in the current sample) measures 11 domains of resources: housing, material goods, education, employment, health care, child care, transportation, social support, legal assistance, finances and issues regarding children, where women rate their perceived effectiveness of obtaining resources in these domains (C. Sullivan et al., 1992). The scale began with the introductory statement “how effective have your efforts been (how successful have you been) in accomplishing your goals in the following areas:” and listed domains such as, “your education?” and “your access to material goods (e.g., clothing, food)?” Women rated their self-reported perceived *EOR* on a 4-point Likert scale ranging from 1 (very ineffective) to 4 (very effective), where higher scores reflect greater perceived effectiveness of obtaining resources. Total scores on this scale can range from 11 to 44. The scale has adequate internal consistency reliability.

Readiness to Change IPV—The *University of Rhode Island Change Assessment Scale-Intimate Partner Violence (URICA-IPV)*; $\alpha = .88$ for the total score in the current sample) was used to measure participants' readiness to change IPV (Bliss et al., 2008). The *URICA-IPV* is a modified version of the University of Rhode Island Change Assessment, which was originally designed to assess substance abuse (McConaughy, Prochaska, & Velicer, 1983). The *URICA-IPV* assesses the four theoretical stages through which individuals progress in changing their attitudes toward changing IPV situations: Precontemplation, Contemplation, Action, and Maintenance. The measure does not include a subscale for the Preparation stage. The *URICA-IPV* is a 32-item self-report measure in which participants are asked to rate the extent to which they agree or disagree with the statement (e.g., “I am really working hard to change my domestic violence situation.”). Items are rated on a five-point Likert-type scale

ranging from 1 (strongly disagree) to 5 (strongly agree). Total scores can range from 32 to 160. Each subscale contains eight items that are summed to yield scores for each of the four stages. A total readiness to change score was calculated by adding the scores of the Contemplation, Action, and Maintenance subscales minus the Precontemplation subscale score with total scores ranging from 16 to 112. Total scores of the *URICA-IPV* were used for this study.

Readiness to Change Suicidal Behavior—The *University of Rhode Island Change Assessment Scale* also was adapted to create the *URICA-Suicide (URICA-S)*; $\alpha = .87$ for the total score in the current sample), which assesses attitudes toward changing suicidal behavior along four theoretical stages of change: Precontemplation, Contemplation, Action, and Maintenance (McConaughy et al., 1983). This self-report measure includes four subscales composed of eight items each corresponding to each of the aforementioned stages of change. Items included statements such as: “I am finally doing some work on my suicide problem,” and “I am actively working on reducing my thoughts of suicide.” Items are rated on a scale from 1 to 5 (1 = strongly disagree to 5 = strongly agree). Subscale scores were combined arithmetically (Contemplation + Action + Maintenance – Precontemplation) to reflect the total readiness to change score, which ranged from 16–112. Higher scores indicate greater readiness to change levels.

Results

Statistical Analyses

A multivariate general linear model (GLM) (Ho, 2006) was used to assess whether or not the intervention impacted the three outcome variables (i.e., self-esteem, hopefulness, and effectiveness in obtaining resources), controlling for pre-intervention levels of these outcome variables. This approach is optimal when there are several interrelated dependent variables and a repeated measures design, in which the dependent variables represent the same constructs at more than one time point. In the analyses, condition served as the fixed factor, post-intervention levels of the three outcome variables were the dependent variables, and pre-intervention levels of each construct were included as covariates.

Univariate GLM was used to determine whether or not readiness to change interacted with group condition in influencing these three post-intervention outcomes. Univariate GLM is a technique to conduct analysis of variance when there are two or more factors, such as is the case when there is an interaction being examined. Six separate analyses were performed, three in which the *URICA-IPV* served as a covariate and three in which the *URICA-S* served as the covariate. For all models, condition served as the fixed factor. Each of the post-intervention levels of the three outcome variables served as a dependent variable for two of the six analyses, one with *URICA-IPV* as a covariate and one with *URICA-S* as a covariate. For all six analyses, the interaction between *URICA* and the condition served as another covariate. The third covariate in each model was the pre-intervention level of the outcome variable of interest. To further explore the interaction effects, for each of the analyses that showed significant interactions, two multiple linear regressions separated by group condition

were run to examine the association between *URICA* and related outcome variables under each condition controlling for pre-intervention levels of the outcome variable.

Descriptive Statistics

The correlation matrix of variables of interest is shown in Table 2. Descriptive statistics of variables of interest for the Nia and TAU groups appear in Table 3. Normative data indicate that mean pre-intervention self-esteem scores were low for the current sample (Taylor & Tomasic, 1996). There were no pre-intervention differences between the two groups regarding major demographic factors or additional treatments. Independent-samples t-tests were run to determine if there were differences in demographic characteristics between women who fully participated in Nia and TAU and those that prematurely terminated. Only one significant finding emerged; women that prematurely terminated from Nia had higher levels of homelessness ($M = 0.61$, $SD = 0.50$) than women who fully participated ($M = 0.40$, $SD = 0.50$), $M = 0.21$, 95% CI [0.03, 0.40], $t(118) = 2.29$, $p = .023$. Because of high attrition rates, we controlled for group differences by adding pre-intervention scores as covariates for all subsequent analyses.

Main Effects of Group Condition on Protective Factors

The first analysis was conducted to determine if there were main effects of group condition (Nia vs. TAU) on levels of the three protective factors: self-esteem, hopefulness, and effectiveness of obtaining resources. Multivariate GLM revealed that at post-intervention, when all three variables were combined, contrary to what was expected, the two groups did not differ in the predicted direction (Wilks' lambda $p = .173$). However, the groups did differ in the predicted direction with regard to one of the three outcome variables, namely self-esteem, $F(1,49) = 3.80$, $p = .05$, *Partial Eta Squared* = .072.

Interaction Effect between Group Condition, Readiness for Change, and Protective Factors

The second aim was to ascertain if the women's stage of readiness to change with regard to their abusive relationship and suicidal behavior influenced the extent to which they possessed higher levels of self-esteem, hopefulness, and perceived effectiveness in attaining resources.

Self-Esteem—When either *URICA-IPV* or *URICA-S* was added to test for interaction between it and the group variable on post-intervention levels of self-esteem controlling for pre-intervention levels of self-esteem, no interaction effect was found between *URICA-IPV* and group condition or between *URICA-S*, $p > .05$.

Hopefulness—The findings that emerged related to the role of stage of change were more promising for levels of hopefulness. When *URICA-IPV* was added to test for interaction between it and condition controlling for pre-intervention levels of hopefulness, a significant interaction emerged, $F(1, 76) = 7.88$, $p = .006$, *Partial Eta Squared* = .094. To further explore this association, particularly how varying levels of *URICA-IPV* impacted the treatment outcome of hopefulness, two separate multiple linear regressions separated by group condition were run controlling for pre-intervention levels of hopefulness. For the women in Nia, there was a negative association between their pre-intervention levels of

URICA-IPV and post-intervention levels of hopefulness, $t(2, 38) = -2.24, p = .03$, *Partial Eta Squared* = .117. For the women in TAU, there was no significant association between their pre-intervention levels of *URICA-IPV* and post-intervention levels of hopefulness, $p > .05$.

A similar process was performed using the *URICA-S* as related to hopefulness. Contrary to the findings with the *URICA-IPV* and hopefulness, no interaction effect was found between condition and women's levels of readiness to change their suicidal behavior. As such, women's readiness to change with regard to their suicidal behavior did not appear to influence their response to treatment as related to feeling more hopeful about the future.

Effectiveness of Obtaining Resources—Results supported the interaction between condition and *URICA-S* with regard to effectiveness of obtaining resources. When *URICA-S* was added to test for interaction between it and condition controlling for pre-intervention levels of effectiveness of obtaining resources, a significant interaction was found between these two variables, $F(1, 51) = 4.58, p = .037$, *Partial Eta Squared* = .082. To further explore this relationship between *URICA-S* and effectiveness of obtaining resources, two separate multiple linear regressions separated by group condition were run controlling for pre-intervention effectiveness of obtaining resources. For the women in Nia, there was a negative association between their pre-intervention levels of *URICA-S* and post-intervention levels of hopefulness, $t(2, 28) = -2.05, p = .05$, *Partial Eta Squared* = .139. For the women in TAU, there was no significant association between their pre-intervention levels of *URICA-S* and post-intervention effectiveness of obtaining resources, $p > .05$.

However, for women's perceived effectiveness in obtaining resources, no interaction effect was found between condition and levels of readiness to change their abusive situation, $p > .05$. Thus, women's stages of change vis-à-vis their abusive situation did not appear to influence their response to treatment with regard to the perceptions of their effectiveness of obtaining resources.

Discussion

To date, few studies have examined the efficacy of a culturally-informed intervention program for abused and suicidal women (N.J. Kaslow et al., 2010; Zhang et al., 2013). Moreover, very little attention has been paid to ascertaining if participation in such an intervention differentially impacts outcomes on constructs that have been found to serve as protective factors against suicidal behavior in African American women (N. J. Kaslow et al., 2002; Meadows et al., 2005). Thus, this paper describes the first examination of the extent to which participation in a culturally-sensitive intervention program is associated with greater improvements in self-esteem, hopefulness, and perceived effectiveness of obtaining resources as compared to involvement in a TAU control group. Moreover, this is the first investigation to consider the extent to which women's readiness to change vis-à-vis both IPV and suicidal behavior influences their response to treatment. With growing calls for attention to mediators and moderators of treatment outcome in randomized controlled trials (Kraemer, Wilson, Fairburn, & Agras, 2002), a focus on readiness to change as a moderator of treatment response is timely.

Unfortunately, counter to predictions, the data on main effects at post-intervention in terms of potential protective factors, namely self-esteem, hopefulness, and perceived effectiveness of obtaining resources was relatively weak. The only between-group difference found was on self-esteem, with women participating in Nia endorsing higher levels of self-esteem post-intervention as compared to those in the TAU group. However, the increase in self-esteem ratings was relatively conservative and may have limited practical significance. This finding may be attributed to a variety of factors including the brevity of the intervention, the persistence of IPV in the relationship between the participant and her partner, and/or a continued deprivation of resources including financial instability and homelessness. Despite these factors, observed increases in levels of self-esteem, after even a brief intervention, warrant further exploration into interventions that can improve self-esteem in suicidal persons, given that low self-esteem adds to the risk of suicidal behavior (Bhar, Ghahramanlou-Holloway, Brown, & Beck, 2008). To date, there is only limited evidence that other intervention programs for suicidal persons are associated with enhancements in self-esteem (Eskin, Ertekin, & Demir, 2008). Moreover, despite the fact that abused women endorse low levels of self-esteem (Bradley, Schwartz, & Kaslow, 2005), no IPV-related interventions have specifically been designed to improve self-esteem nor been found to do so.

The lack of between-group differences in the predicted directions related to two of the protective factors (hopefulness, resource attainment) is unexpected. This is particularly the case given other studies that have revealed that participation in a psychological intervention, following IPV exposure or a suicide attempt, is associated with greater levels of hopefulness and improvements in resource attainment in adults (Brown et al., 2005; Iverson, Shenk, & Fruzzeti, 2009).

When stages of change with regard to one's abusive relationship and suicidal behavior were added to the picture, some interesting findings emerged. Specifically, as predicted, African American women who were less ready to change their IPV experience manifested an improvement in the area of hopefulness, and those who were less ready to change their suicidal behavior evidenced an improvement in perceived effectiveness of obtaining resources post-intervention as compared to participants in the TAU condition. Stages of change processes did not appear to influence outcomes related to self-esteem. These findings further reinforce our appreciation of consideration of the stage in the change process when implementing interventions and determining their impact (Bliss et al., 2008; Edwards et al., 2006).

The data related to the significance of change process vis-à-vis improvements in key protective factors are in keeping with and expand the stages of change literature. They are consistent with prior studies demonstrating the significance of the change process for abused women (Chang et al., 2006; Edwards et al., 2006). Moreover, research demonstrates that stage in the change process predicts outcomes in perpetrators of IPV (Alexander & Morris, 2008; Eckhardt, Babcock, & Homack, 2004). Some studies with perpetrators reveal that similar to our sample, those earlier in the change process benefit more from the intervention (Alexander, Morris, Tracy, & Fry, 2010; Crane & Eckhardt, 2013). Despite the burgeoning IPV literature related to the change process, the current investigation is the first to highlight

the link between stages of change related to suicidal behavior and other outcome variables and the only to examine this critical variable for predicting treatment outcome in low-income, abused and suicidal African American women.

The results highlight the importance of attending to women's stage in the change process when designing and implementing interventions. The stages of change process offer a framework for conceptualizing an individuals' advancement toward achieving safer and healthier goals (Bliss et al., 2008; Burkitt & Larkin, 2008). This model also has utility in the context of the therapeutic relationship (Blanchard, Morgenstern, Morgan, Labouvie, & Bux, 2003; Burke, Denison, Gielen, McDonnell, & O'Campo, 2004). For example, attunement to the stage of the change process will enable the therapist to more effectively assist women in extricating themselves from abusive relationships and in reducing their propensity to harm themselves in the face of stress (Burman, 2003).

In addition, the findings underscore the value of considering stage in the change process for bolstering key protective factors. At-risk African American women, who feel more hopeful about their future and feel capable of affecting change, as well as those who feel more capable of attaining resources, are less likely to harm themselves (M. Thompson et al., 2002). In addition, the ability to attain and access resources, such as shelters, hotlines, childcare and other services, has been shown to be an important factor related to leaving an abusive partner (C. M. Sullivan & Bybee, 1999; C. M. Sullivan & Gillum, 2001). Learned optimism interventions as applied to trauma survivors (Seligman, 2006) may serve as a useful guide for developing and implementing interventions for women early in the change process that specifically empower them to feel more hopeful and effective at attaining resources.

Study results need to be considered in light of key limitations. First, data were collected on women with a recent suicide attempt and histories of IPV. As a result, the data are from women at impaired levels of functioning and may not generalize to a less vulnerable and stressed group of women. Second, and in a related vein, given our focus on low-income African American women, we do not know to what extent our findings generalize to women of other socioeconomic levels or racial/ethnic groups. Third, there was a high attrition rate, which was not surprising given the economic instability in the lives of the women in the study. Nonetheless, such attrition limited the sample size at post-intervention and likely contributed to our lack of findings for some of the hypotheses. Moreover, the high attrition rate precluded the assessment of all participants who entered the trial, thus our findings should be interpreted with caution. Fourth, data on reasons for participant drop-out were not collected, which limits our understanding of the primary reasons for non-participation and hinders our ability to potentially counteract drop-out in future interventions. However, we do know that those who prematurely terminated from the intervention had higher levels of homelessness than those who completed the intervention, thus indicating that participant characteristics, as opposed to the intervention itself, may have contributed to the high drop-out rate. Finally, although information regarding participants' living conditions was collected, data specifying whether or not participants were living with their abuser (i.e., living in violent homes) during the study was not available. Therefore we were unable to control for this potential confounding variable during our analyses.

The limitations of this study are balanced by several benefits including the use of a sample that is historically underrepresented in research on IPV and suicidality and the evaluation of a culturally informed intervention. There are a number of clinical implications of the findings for working with low-income, abused African American women. First, the results, although conservative, highlight the value of culturally relevant interventions for this population. Such interventions should strive to be both evidence-based and Afrocentric in nature (Davis et al., 2009), given that low-income African American women are less likely to trust formal mental health resources and are more likely to seek out interventions that are culturally-relevant (Cho & Kim, 2012; Nicolaidis et al., 2010). Second, Nia and other interventions need to be more focused with regard to not only enhancing self-esteem, but also improving hopefulness and effectiveness of obtaining resources. Specific sessions and intervention techniques should be incorporated to this end and more attention needs to be paid to the resource-related barriers to seeking services and ways to address and overcome such obstacles (Bent-Goodley, 2004; Nicolaidis et al., 2010). Third, Nia seems to be a more appropriate and beneficial intervention for women that are in the earlier stages of change. One explanation for this finding is that those who are “less ready” to change necessitate an intervention that is more directive and empowering than one that is, for example, insight-oriented and interpersonal in nature, which may benefit those who are further along in the stages of change process. Thus, clinicians may want to consider an individual’s stage in the readiness to change process when creating an intervention to potentially optimize the benefits of treatment. Culturally informed treatments should continue to assist African American women in traversing through the transtheoretical stages of change while reducing the risk for future IPV and suicidal ideation/behavior and enhancing key protective factors (Alim et al., 2008; Hood & Carter, 2008).

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Table 1

Demographic Characteristics of the Participants.

Demographic Characteristics	Descriptive Statistics
Relationship status (%)	
Single or never married	25.0
With partner, not married	35.3
Married	6.8
Separated	15.9
Divorced	11.4
Widowed	5.7
Have children (%)	86.5
Homeless (%)	47.2
Unemployed (%)	86.4
Individual monthly income	
\$0–\$249	61.8
\$250–\$499	16.9
\$500–\$999	19.1
>\$999	2.2
Household monthly income	
\$0–\$249	32.1
\$250–\$499	12.3
\$500–\$999	22.2
>\$999	33.3

Table 2

Pearson Correlations between Taylor Self-Esteem Inventory, Hopefulness, Effectiveness of Obtaining Social Resources Scale, University of Rhode Island Change Assessment Scale- Intimate Partner Violence, and University of Rhode Island Change Assessment Scale-Suicide at Pre-Intervention Assessment.

	TSEI	Hopefulness	EORS	URICA-IPV	URICA-S
TSEI	--	.494**	.388**	-.154	-.242*
Hopefulness	--	--	.245*	.200	.059
EORS	--	--	--	-.001	.004
URICA-IPV	--	--	--	--	.621**
URICA-S	--	--	--	--	--

** Differences are significant at $p < .01$;

* Differences are significant at $p < .05$

Note. TSEI stands for Taylor Self-Esteem Inventory; Hopefulness is reverse coded from Beck Hopelessness Scale; EORS stands for Effectiveness of Obtaining Resources Scale; URICA-IPV stands for University of Rhode Island Change Assessment Scale- Intimate Partner Violence; and URICA-S stands for University of Rhode Island Change Assessment Scale-Suicide.

Table 3

Descriptive Statistics of Taylor Self-Esteem Inventory, Hopefulness, Effectiveness of Obtaining Social Resources Scale, University of Rhode Island Change Assessment Scale- Intimate Partner Violence; and University of Rhode Island Change Assessment Scale-Suicide.

	Pre-intervention						Post-intervention					
	Nia			TAU			Nia			TAU		
	n	M	SD	n	M	SD	n	M	SD	n	M	SD
TSEI	44	55.6	21.0	44	51.6	18.8	45	*67.4	20.5	43	*59.7	19.5
Hopefulness	44	12.1	6.14	42	8.80	6.38	45	15.6	4.71	44	12.8	6.28
EORS	33	22.7	5.7	33	23.7	5.7	35	25.5	7.5	35	26.5	6.4
URICA-IPV	42	82.2	14.1	42	79.8	13.7	---	---	---	---	---	---
URICA-S	44	81.9	13.0	44	78.8	16.6	---	---	---	---	---	---

Note. TSEI stands for Taylor Self-Esteem Inventory (scores range from 0 – 128) ; Hopefulness is reverse coded from Beck Hopelessness Scale (scores range from 0 – 20); EORS stands for Effectiveness of Obtaining Resources Scale (scores range from 11 – 44); URICA-IPV stands for University of Rhode Island Change Assessment Scale- Intimate Partner Violence (scores range from 16 – 112); and URICA-S stands for University of Rhode Island Change Assessment Scale-Suicide (scores range from 16 – 112). Higher means indicate greater levels of each variable.

* differences between Nia and TAU are significant at $p = .05$.