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Striving Towards Empowerment and Medication Adherence (STEP-AD): A Tailored Cognitive Behavioral Treatment Approach for Black Women Living With HIV

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In the U.S. Black women with HIV face numerous psychosocial challenges, particularly trauma, racism, HIV-related discrimination, and gender role expectations, that are associated with negative HIV health outcomes and low medical treatment adherence. Yet many of these factors are unaddressed in traditional cognitive behavioral approaches. This study presents a case series of a tailored cognitive behavioral treatment approach for Black women living with HIV. Striving Towards EmPowerment and Medication Adherence (STEP-AD) is a 10-session treatment aimed at improving medication adherence for Black women with HIV by combining established cognitive behavioral strategies for trauma symptom reduction, strategies for coping with race- and HIV-related discrimination, gender empowerment, problem-solving techniques for medication adherence, and resilient coping. A case series study of five Black women with HIV was conducted to evaluate the preliminary acceptability and feasibility of the treatment and illustrate the approach. Findings support the potential promise of this treatment in helping to improve HIV medication adherence and decrease trauma symptoms. Areas for refinement in the treatment as well as structural barriers (e.g., housing) in the lives of the women that impacted their ability to fully benefit from the treatment are also noted.

Black women account for over 62% of women living with HIV in the United States (Centers for Disease Control and Prevention, 2016). In addition, Black women living with HIV (BWLWH) are less likely to be HIV virally suppressed (i.e., viral load at an undetectable level) and more likely to die from HIV-related illnesses (McFall et al., 2013) than White women, which in part is due to suboptimal HIV medication adherence. Optimal adherence to antiretroviral therapy (ART) is necessary to prevent the virus from replicating, transition from HIV to AIDS, and eventually death due to HIV-related complications (Lee et al., 2017). With adequate ART adherence, the HIV virus can become suppressed and there is a significant decrease in the risk of death from HIV-related complications (Hoffmann and Gallant, 2014; Lee et al., 2017) as well as decreased risk of transmitting the virus to someone else. The optimal level of ART adherence is estimated to be at 80% or above (Bangsberg et al., 2000), but among racial/ethnic minority women estimated adherence is 45% to 64% (Howard et al., 2002).

Keywords: black women; HIV; trauma; medication adherence; cognitive behavioral therapy

A few psychosocial factors have been shown cross-sectionally to be particularly relevant for medication adherence among BWLWH, including histories of trauma/abuse, racial discrimination, HIV-related discrimination, and prescribed gender roles (e.g., ways women and girls are expected to behave, think, and feel; Brody, Stokes, Kelso, et al., 2014; Katz et al., 2013; Kelso et al., 2013; Leserman et al., 2007; Machtinger et al., 2012). For instance, over 67% of 2,000 HIV-positive and 500 HIV-negative participants in the Women's Interagency HIV Study (WIHS) reported histories of physical, sexual, or emotional abuse (Cohen et al., 2000; Cohen et al., 2004) and abuse histories have been linked to medication nonadherence and increased mortality (Machtinger et al., 2012). Some women with histories of trauma/abuse may develop posttraumatic stress disorder (PTSD), which is a combination of reexperiencing the trauma (e.g., nightmares, flashbacks), avoidance (e.g., pushing away thoughts, staying away from people who are reminders), negative changes in thoughts and mood (e.g., self-blame), and changes in reactivity (e.g., exaggerated startle response; APA, 2013). For women with HIV, receiving the HIV diagnosis is a traumatic stressor that may lead to PTSD symptoms (Nightingale, Sher, & Hansen, 2010).

Discrimination experiences based on race and HIV status are also ongoing stressors that Black women with HIV face. Authors of the Black Women's Health Study found that 66% of Black women experienced discrimination on a

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monthly basis on the job, in housing, and/or by the police (Mouton et al., 2010) and HIV researchers have noted significant associations between racial discrimination and HIV medication nonadherence among African Americans (Bogart, Wagner, Galvan, & Klein, 2010). Similarly, BWLWH face HIV-related discrimination, which has also been associated with medication nonadherence among African Americans (Bogart et al., 2010). Black women are also socialized with traditional female gender roles (e.g., expectation to sacrifice self-needs in order to care for others; Bowleg, Belgrave, & Reisen, 2000), which are higher among women with HIV and have been linked with low ART adherence (Brody, Stokes, Kelso, et al., 2014; Brody, Stokes, Dale, et al., 2014). Given the relationships between trauma/abuse, racism, HIV-related discrimination, and gender roles with medication adherence among BWLWH, a treatment incorporating existing cognitive behavioral treatment strategies and addressing coping strategies for these issues might be beneficial in improving medication adherence.

Elements of established cognitive behavioral treatments for trauma/posttraumatic stress disorder (i.e., Cognitive Processing Therapy [CPT] and Prolonged Exposure Therapy) may be beneficial in a treatment for women with HIV and histories of abuse (Foa, Rothbaum, Riggs, & Murdock, 1991; Resick, Nishith, Weaver, Astin, & Feuer, 2002). Elements include delivering information about PTSD, writing an impact statement about the traumatic event, and exploring and correcting negative thoughts (e.g., low self-worth) relating to the traumatic event that may interfere with self-care behaviors (e.g., medication adherence; Foa et al., 1991; Resick et al., 2002). A limited number of treatment studies specifically address trauma among individuals with HIV, and these have shown significant decreases in trauma symptoms and sexual risk behaviors (Sikkema et al., 2008; Sikkema et al., 2007; Wyatt et al., 2004). Of these three studies, one examined medication adherence and did not show an effect, while two studies did not examine medication adherence (Sikkema et al., 2008; Sikkema et al., 2007; Wyatt et al., 2004). In addition, existing trauma-focused treatments for women with HIV do not include, as part of the treatment, potentially important components such as discrimination experiences for BWLWH.

A few interventions incorporating gender empowerment among women with and at risk for HIV have shown efficacy in reducing sexual risk behaviors (DiClemente & Wingood, 1995; Wingood et al., 2004). For instance, DiClemente and Wingood's (1995) intervention Sisters Informing Sisters About Topics on AIDS (SISTA), which includes content on gender pride and assertiveness skills, showed efficacy in decreasing sexual risk behaviors for heterosexual African American women. Similarly, the Women Involved in Life Learning From Other Women (WiLLOW) intervention for women living with HIV encourages gender pride and has demonstrated efficacy in decreasing sexual risk behaviors among diverse groups of women (Wingood et al., 2004). However, there is currently no existing efficacious intervention for women with HIV that incorporates gender roles and empowerment (e.g., assertive communication with providers), as part of ways to increase medication treatment adherence.

Behavioral treatments that directly aim to increase ART adherence also need additional refinement. To date, the majority of interventions to increase ART adherence among HIV-infected participants have yielded modest effects (Amico, Harman, & Johnson, 2006; Simoni, Pearson, Pantalone, Marks, & Crepaz, 2006). One approach to enhance the efficacy of these interventions is to address co-occurring psychosocial problems (such as depression), given their relationship with nonadherence. In individuals with HIV and depression, for example, Life-Steps, a single-session cognitive-behavioral problem-solving intervention for medication adherence (Safren, Otto, & Worth, 1999; Safren et al., 2001), has shown efficacy when combined with CBT strategies addressing depression (Safren et al., 2009; Safren et al., 2012). More specifically, Life-Steps includes psychoeducation on the benefits of being adherent with ART, review and brief modification of participants' nonadaptive cognitions about taking their medications, review of commons barriers to adherence, and teaching of problem-solving techniques for problematic areas with adherence (Safren et al., 1999; Safren et al., 2001). Combining the single session of Life-Steps with tools addressing psychosocial issues for BWLWH might be beneficial.

While there are no interventions that have shown to increase adaptive coping with racism and HIV-related discrimination, there are existing coping strategies that have been noted in the literature among BWLWH and Black individuals in general (Bogart et al., 2017; Dale et al., 2017; Forsyth & Carter, 2012). Coping strategies for racial discrimination highlighted in these studies include social support, assertiveness, caution, ignoring the perpetrator, taking legal action, spirituality, racial consciousness (i.e., connecting with one's cultural heritage to take action against racism), and bargaining (e.g., changing one's behavior to manage others' perceptions). Forsyth and Carter (2012) suggested having clients examine the pros and cons of these coping strategies and enhance racial consciousness. Existing literature suggests that Black women living with HIV may cope with discrimination via selective/nondisclosure of their HIV status, education/knowledge, and avoidance, internalized stigma (e.g., self-hate), seeking support, and praying (Dale et al., 2017; Varni, Miller, McCuin, & Solomon, 2012).

Other resilient coping strategies may also promote medication adherence, but efficacy/effectiveness also remains unexplored. Resilience can include personal

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