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A Culturally Adapted Depression Intervention for African American Adults Experiencing Depression: Oh Happy Day

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The purpose of this article is to describe development of a culturally adapted depression intervention (Oh Happy Day Class, OHDC) designed for African American adults experiencing major depressive disorder (MDD). This project included 2 pilot studies testing the feasibility and acceptability of the OHDC and examining short-term effects of the OHDC in reducing symptoms of MDD. The OHDC is a 2.5-hr weekly, culturally specific, cognitive behavioral, group counseling intervention for 12 weeks. Cultural adaptations of the OHDC are based on the ecological validity and culturally sensitive framework, along with an Afrocentric paradigm. Fifty African American participants with MDD were enrolled (15 in Pilot I and 35 in Pilot II). All participants in Pilots I and II received the 12-week intervention and completed assessments at baseline, mid-intervention, end-intervention, and 3 months postintervention. General linear mixed modeling for assessment of pre-post longitudinal data analysis was conducted. Results for Pilot I showed 73% of participants completed the full OHDC, a statistically significant decline in depression symptoms from pre- to postintervention, and a 0.38 effect size. Participants were very satisfied with the OHDC. In Pilot II, 66% of participants completed the full OHDC, and there was a significant pre-post intervention decrease in depression symptoms. For men, the OHDC showed a 1.01 effect size and for women, a 0.41 effect size. Both men and women were very satisfied with the OHDC based on the satisfaction measure. These promising findings are discussed with a focus on future plans for examining efficacy of the OHDC in a large-scale, randomized, control trial.

Approximately 40 years ago, Dr. Martin Luther King stated "of all forms of inequality, injustice in health care is the most shocking and inhumane." Dr. King's comment was a call to action, yet inequalities and disparities in mental health care and outcomes remain largely unaddressed, and, sadly, are increasing for African American adults with depression (U.S. Department of Health and Human Services, 2001). For example, although the 12-month prevalence of major depressive disorder (MDD) is similar among African Americans (5.9%) and Whites (6.9%), African Americans report more chronic MDD and associated disability than do Whites (56.5% vs. 38.6%; Williams et al., 2007).

Despite the negative impact of depression among African Americans, a recent study showed low usage of any medical care for MDD (pharmacotherapy or psychotherapy; 39.7%) compared with Whites (54.1%; González et al., 2010). Another study found even lower rates of service use among African Americans; only 5.6% of African Americans reported having four or more visits within 12 months compared with 81.6% of Whites (Fortuna, Alegria, & Gao, 2010).

Research suggests African Americans' use of mental health services is low in part because of their receipt of poorer quality mental health care (González et al., 2010; U.S. Department of Health and Human Services, 2001; Ward, 2005). Specifically, African Americans are less likely than Whites to receive guideline-concordant treatment (González et al., 2010); have higher rates of attrition from mental health treatment programs, especially treatments that are not culturally specific (Cooper et al., 2003; U.S. Department of Health and Human Services, 2001; Wang, Demler, & Kessler, 2002); and are more likely to end treatment after only one session (50% vs. 30%, respectively; Wade & Bernstein, 1991).

Low service use appears consistent among African Americans across gender and age. For instance, researchers at the California

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Black Women's Health Project (CABWHP, 2003) found only 7% of African American women with symptoms of a mental illness sought treatment. Similarly, Neighbors et al. (2007), in a national survey of Black Americans examining their use of mental health services in a 12-month period, found only 7% of African American men and 12% of African American women used mental health services in a 12-month period. Research examining older African Americans' (55 years or older) use of mental health services revealed that in a subsample of 65 individuals meeting criteria for one mental disorder (mood, anxiety, and substance disorders), only 46.6% ($n = 30$) used any mental health services within a 12-month period. For those with two or more mental disorders, only 47.2% ($n = 12$) used any mental health services within a 12-month period (Neighbors, et al., 2008).

In summary, among African Americans there is a high prevalence of chronic depression and disability associated with depression. However, they evidence low levels of seeking mental health care service. At the same time, when they do seek mental health care service, they receive poor quality care. These issues for African Americans suggest significant unmet mental health needs. Recent research suggests existing evidence-based psychological treatments are not providing optimal care for racial and ethnic minorities, including African Americans (González et al., 2010; U.S. Department of Health and Human Services, 2001; Ward, 2007; Ward & Mengesha, 2013). The good news is there is a growing body of research showing culturally adapted treatments/interventions increase psychotherapy effectiveness and mental health outcomes for racial and ethnic minority patients/clients (Bernal, Jiménez-Chafey, & Domenech Rodriguez, 2009; Nicolas, Arntz, Hirsch, & Schmiedigen, 2009), thus showing promise as one option in meeting the mental health needs of African American adults with depression.

Culturally Adapted Treatments/Interventions (CAT/I)

The term CAT/I refers to any modification to evidence-based mental health treatments that involves changes in the approach to service delivery; in the nature of the therapeutic relationship; or in components of the treatment itself to accommodate the cultural beliefs, attitudes, and behaviors of the target population (Whaley & Davis, 2007). Major mental health professional organizations, including the American Psychiatric Association and the American Psychological Association, have stipulated in their ethical codes and training standards that provision of culturally sensitive care is a moral and ethical responsibility of mental health clinicians (American Psychiatric Association, 2013; American Psychological Association, 2010).

A recent meta-analysis of 76 studies that examined clinical outcomes associated with culturally adapted mental health interventions indicated the average effect size of using a culturally adapted intervention was $d = 0.45$, indicating a moderately strong benefit (Griner & Smith, 2006). In particular, mental health interventions targeted to a specific cultural group were 4 times more effective than interventions provided to culturally diverse groups of clients, suggesting culturally adapted treatment may be more efficacious when adaptations are specific to a particular racial or ethnic group, and optimal benefit is derived when treatment is tailored to a specific cultural context (Griner & Smith, 2006). Although findings from this meta-analysis support the efficacy of CAT/I and the need for cultural congruence in treatment interventions, the meta-analysis included only one study with an African American population (Kohn, Oden, Muñoz, Robinson, & Leavitt, 2002).

Kohn and colleagues compared a culturally adapted model of cognitive–behavioral therapy (CBT) to standard CBT in treating depression in 22 low-income African American women (Kohn et al., 2002). They hypothesized the adapted CBT would result in decreased symptom intensity compared with standard CBT. The adapted CBT focused on African American culture, including spirituality, Black identity, and Black family issues. Study results indicated the adapted CBT was effective in reducing depression scores (Beck Depression Inventory II) an average of 12.6 points, compared with standardized CBT, with a reduction score of 5.9 points pre- to posttreatment. Although this study makes a contribution to the sparse literature in this area, it contained several major weaknesses: (a) the sample given the culturally adapted CBT was small ($N = 12$); (b) the control group consisted of 10 participants from a previous study who completed the standardized CBT, thus introducing bias; and (c) randomization was not used, because participants were offered the option to choose which intervention they preferred. The weakness of Kohn's study conveys the urgent need for more research developing and testing effectiveness of culturally adapted depression interventions for African American adults.

To this end, we designed a culturally adapted depression intervention (the Oh Happy Day Class, OHDC) for African American adults experiencing MDD. Using a cognitive–behavioral approach, the underlying hypothesis guiding the OHDC was that a cognitive–behavioral depression intervention with cultural adaptations made specifically for the targeted group (African Americans) would:

(1) increase retention in treatment (continuity of care),
(2) increase satisfaction with treatment, and
(3) decrease symptoms of MDD.

This article describes development of the OHDC and two pilot studies conducted to test feasibility (increase retention in treatment) and acceptability (increase satisfaction with treatment) of the OHDC and examine short-term effects of the OHDC in reducing symptoms of MDD.

OHDC

Cultural Adaptation and Theoretical Frameworks of the OHDC Intervention

The OHDC was culturally adapted from the Coping with Depression Course (CWD). The CWD is theoretically grounded in social learning theory and uses a psychoeducation format in which participants in a group counseling setting learn skills to cope with depression (Lewinsohn, Munoz, Youngren, & Zeiss, 1986; Lewinsohn, Steinmetz, Antonuccio, & Teri, 1985). The CWD has been identified as the most studied depression intervention and has been implemented in the United States and internationally (Germany, Canada, Finland, and The Netherlands; Cuijpers, Muñoz, Clarke, & Lewinsohn, 2009). A recent meta-analysis of 25 studies examining the effectiveness of the CWD found it to be effective in the treatment of MDD; however, the overall effect size was relatively

small ($d = 0.28$; Cuijpers, Munoz, Clarke, & Lewinsohn, 2009). The small effect sizes were attributed to the racial/ethnic and socioeconomic demographic makeup of the sample, or what Cuijpers and colleagues called "complex populations" that included low-income minority women, older Native American Indians, and populations who did not seek treatment. In particular, Cuijpers and colleagues concluded the CWD may not be effective for all groups of patients and recommended further research to determine which groups might benefit. Recognizing the clinical benefits of the CWD, along with its limited application to African American men and women, we modified the CWD and culturally adapted it to develop the OHDC.

The ecological validity framework (Bernal, Bonilla, & Bellido, 1995) guided adaptation of the OHDC. Bernal et al. (1995) postulated the following areas should guide cultural adaptation of treatments and interventions: language (culturally appropriate), persons (role of race, ethnicity, and culture for the client and therapist, and how it may affect client–therapist relationship), metaphors (symbols, concepts, and sayings consistent with culture), content (knowledge of culture, values, socioeconomics, history and politics unique to the group), concepts (treatment concepts congruent with clients' culture and context), goals (continuity of positive and adaptive cultural values and context), methods (cultural adaptation and congruence of treatment methods), and context (consideration of clients' context that might include economic, cultural, and social contexts). The ecological validity framework was used to adapt depression interventions for use with Puerto Rican American adolescents (Bernal, Bonilla, & Bellido, 1995) and Haitian American youth in the United States (Nicolas, Arntz, Hirsch, & Schmiedigen, 2009) and was found to be effective in reducing symptoms of depression among these groups.

Once the ecological validity framework was identified as the guiding framework, the second step involved conducting a series of descriptive research studies examining African Americans' beliefs about mental illness, perceptions of stigma, experiences in counseling, and treatment preferences (Ward, 2005; Ward, 2007; Ward, Clark, & Heidrich, 2009; Ward & Heidrich, 2009; Ward, Wiltshire, Detry, & Brown, 2013). Overall, results indicated our African American male and female adult participants believed they knew some of the symptoms and causal factors of mental illness, but felt the need to increase their knowledge. Also, findings indicated culturally specific beliefs suggesting participants believed racism and discrimination can cause depression among African Americans. In addition, there were age-specific beliefs, such that older participants believed aging was a causal factor for the onset of depression. However, no gender differences about causes of mental illness were found. The predominant belief was that mental illness is chronic, with negative health outcomes, and praying and talking to a pastor and seeking counseling were preferred coping strategies, as opposed to using medications. Their openness to counseling appeared contingent on it being culturally sensitive, which included having African American therapists and content specific to African American culture. In addition, they were not very open to acknowledging psychological problems and were very concerned about stigma associated with mental illness and seeking treatment for mental illness. Treatment-seeking barriers they endorsed included poor access to care, receipt of culturally insensitive care, and stigma. In another one of our studies, we found older African American women believed depression was normal reaction to life circumstances and did not see the need to seek professional treatment for depression (Ward & Mengesha, 2013). These results from our prior research were incorporated into the OHDC, with specific attention to language, persons, metaphors, content, concepts, goals, methods, and context as recommended in the ecological validity framework. More specifically, given participants' perception that depression was normal, one of the modules in the OHDC focused on the diagnostic process for depression and treatment options to help participants understand depression is a medical condition. Also, with our finding indicating prayer is a preferred coping strategy, in the session focusing on coping behaviors, use of prayer is discussed and encouraged among individuals who indicate their prayer life is important to them. In addition, because our research indicated participants' preference was working with African American clinicians, OHDC was designed to be facilitated by African American clinicians whereby the clinicians appropriately disclosed relevant to topics of discussion about their experiences of being African Americans.

The third step involved reviewing literature on African American history and culture with the goal of identifying an Afrocentric paradigm to incorporate into the OHDC. The Afrocentric paradigm selected was Dr. Karenga's Nguzo Saba, which is comprised of seven humanistic principles originating in Africa. These principles were designed to facilitate an individual's sense of direction, personal growth, and meaning in life. The seven principles are unity, self-determination, collective work and responsibility, cooperative economics, purpose, creativity, and faith (Karenga, 1988). These principles are used in the African American Kwanzaa celebration, which honors African American heritage and culture. Kwanzaa is held annually in the United States from December 26th through January 1st. Use of Nguzo Saba principles in mental health interventions with African Americans show benefits in resolving psychosocial issues (Franklin & Pack-Brown, 2001; McLean & Marini, 2003). Also, use of Nguzo Saba principles in education interventions resulted in increased high school grade point average, improved behaviors at school and attitudes toward school, and increased interest in personal and social growth, as well as aspirations for success (Johnson, 2001; Wyatt, 2009). These positive results were influential in our decision to use Nugzo Saba in the OHDC.

After the adaptation processes described earlier, the OHDC was essentially different from the original coping with depression treatment in the following ways: (a) the OHDC was culturally specific, incorporating African American cultural beliefs into treatment; (b) risk factors were added specific to African Americans, as well as preferred coping behaviors including use of religious coping and preference for group counseling; and (c) African American clinicians were used for treatment as requested by participants in our previous research. Please see Table 1 for weekly topics of the OHDC. Weeks 1–12 class module and content were designed specifically for African Americans, using the 3-step adaptation process we described. In sum, the majority of OHDC content (90%) was different from the CWD, because it was developed specifically for African Americans with input from African Americans, while the CWD was not developed with a focus on African Americans and had not been tested with African Americans.

Table 1. *Weekly Topics for Oh Happy Day Class (OHDC)*

Week	Topics
1	Introduction and overview of group counseling and Nguzo Saba principles
2	Depression: etiology, risk factors, symptoms, and treatment
3	Men/women and depression, stigma, and access barriers
4	Depression and chronic physical illness
5	Community resources
6	Anger management
7	Stress management and learning to relax
8	Constructive thinking
9	Forgiveness
10	Depression and pleasant activities
11	Maintaining gains and developing a life plan using Nguzo Saba
12	Review, wrap-up, and graduation
Reunion (3 months postintervention)	Booster session

Format and Treatment Approach of the OHDC

The OHDC uses CBT and a support group format combined with a strong psychoeducation focus. The weekly sessions are called *classes*. Classes are 2.5 hr long, held over a 12-week period, and meet once per week. In the first 30 min, a light meal is provided depending on the time of day (lunch or dinner), and soft background music is played, during which time participants share a meal together, check in, and bond with each other. After meal time, the next hour of class focuses on use of CBT conducted in a support group format, which allows participants the opportunity to share psychosocial issues they are struggling with and get emotional support from group facilitators and group members. The second hour of class consists of the psychoeducation component and CBT. The goal of this segment is to teach participants cognitive and behavioral strategies to increase use of healthier coping behaviors. Emphasis is placed on increasing knowledge of depression and treatment options, developing healthy coping behaviors, and shifting negative perceptions of health and disability status to more positive. Participants are given a workbook, which includes content specific to each class module. Classes are facilitated by two African American counselors who hold masters' degrees in social work, counseling, or psychiatric mental health nursing.

12-Week Psychoeducation Content

This section provides a detailed overview of the weekly psychoeducation content of the OHDC (see Table 1 for weekly topics). In the first class, we educate participants about the process of group counseling. As discussed earlier, stigma is a barrier to treatment-seeking among African Americans, thus education about counseling is critical in the first class/session. Also, in the first class, we present the Nguzo Saba principles (Karenga, 1998) to help participants understand classes are specifically designed to their cultural needs and to foster a sense of direction, personal growth, and life purpose from an Afrocentric perspective. In the second class, we focus on key concepts of depression, including etiology, risk factors, symptoms, and treatment options (psychotherapy and psychotropic medications). These concepts are discussed in a manner sensitive to cultural manifestations of depression among this group; in particular, we discuss that depression is not a normal reaction to stressful life situations, rather depression is a medical condition. In the third class, we emphasize depression and its impact on African Americans, with particular focus on risk factors and symptom manifestation. In addition, issues related to the stigma of mental illness, language used to negatively label individuals with mental illness, and treatment-seeking among African Americans are discussed. In the fourth class, we incorporate recent research to help participants understand the relationship between their physical and mental health. In particular, we discuss the relationship between cardiovascular disease, cancer, diabetes and depression among African Americans, and the importance of having both physical and mental health conditions treated simultaneously. In the fifth class, we focus on community resources, because our previous research suggested a lack of knowledge about community resources among African Americans. The sixth class focuses on anger management to address the negative label of "angry Black men/women." In this class, we use the Nguzo Saba principle of self-determination to help participants recognize they can "define themselves and speak for themselves." In class seven, we focus on stress management including spiritual coping, because of its salience among this group. In the eighth class, we focus on constructive thinking to facilitate cognitive reframing and healthier coping. In this session, we also emphasize the Nguzo Saba principle of faith to foster participants' belief in themselves. In class nine, we focus on forgiveness, health benefits of forgiveness, and achieving a sense of unity. In class 10, we focus on pleasant activities and using creativity (Nguzo Saba) to foster healthy coping and a sense of happiness. In class 11, we use the seven principles of Nguzo Saba to help participants evaluate their progress and develop a life plan/mission statement. In class 12, which is the last week, we review key concepts discussed throughout the 11 classes and host a graduation celebration. The reunion (3 months postintervention) is a booster session in which participants review key concepts, share their challenges and progress, receive support and encouragement, and are provided with a referral for continued care if needed.

After completion of the cultural adaption, the OHDC was named and a treatment manual was developed. The treatment was strategically named Oh Happy Day Class to minimize the stigma asso-

ciated with mental illness and treatment-seeking among African Americans. In addition, the treatment name was chosen from the popular gospel song, *Oh Happy Day*. The name was anecdotally pilot tested in the African American community and received high positive ratings.

Once the OHDC manual was developed, three African Americans clinicians were then trained to administer the OHDC. These clinicians received 20 hours of training focusing on content of the OHDC and mental health clinical skills. The following areas were emphasized in the training: Cognitive Behavior Theory, major depressive disorder, suicide risk assessment, listening skills, demonstration of empathy, ethical issues including confidentiality, and making referrals for additional treatment as appropriate. Because the OHDC is a culturally specific intervention, therapists and group members were racially matched, thus three African American mental health therapists (with master's degree in counseling or social work) were hired and trained to conduct the OHDC. The training and weekly supervision were provided by the first author, who is a licensed psychologist and an associate professor. In addition, reinforcement training sessions were provided as necessary. Throughout the time the clinicians worked on the pilot studies, all of the sessions they administered were video recorded. The supervisor reviewed all the recordings and provided ongoing feedback and supervision to ensure the clinicians were competently administering the OHDC.

We then conducted two pilot studies examining whether a cognitive–behavioral depression intervention with cultural adaptations made specifically for African Americans would increase retention in treatment, increase satisfaction with treatment, and decrease symptoms of depression. These two pilot studies are described in the following section.

Method

Design and sample. Both Pilot I and II used a one-group pretest-posttest design. Depression symptoms were assessed at four time points: baseline, midway through the intervention (Week 6), at the end of the intervention (Week 12), and at follow-up (Week 24 or 3 months postintervention). These time points were selected to allow enough time for participants to be able to incorporate information learned in the intervention, to institute changes in cognition and behavior, and for these changes to have an effect on symptoms. A longer time was not used because high dropout rates can occur with longer follow-up periods, particularly among African Americans (Pinn, Harden, & Blehar, 2002).

Inclusion criteria for Pilot I were African American women, 60 years or older, with mild to moderate depression symptoms as evidenced by a score of 10 or higher on the Geriatric Depression Scale (GDS). Exclusion criteria were (a) individuals with a dual diagnosis (depression comorbid with alcohol dependence or other types of mental illness as evidenced by the results of the Patient Health Outcomes, PHOs); (b) individuals with moderate to severe cognitive impairment as evidenced by a score <23 on the Mini Mental Status Exam (MMSE; $n = 0$, no individuals had a score lower than 23); (c) individuals currently receiving psychotherapy; and (d) individuals presently experiencing suicidal ideation ($n = 0$, no one was identified as experiencing suicidal ideation). The GDS, Patient Health Questionnaire (PHQ), and MMSE are described in the screening measures section. There was no exclusion based on use of psychotropic medications, because this was a pilot feasibility study and the intention was to be inclusive. Thus, individuals presently taking psychotropic medications were included in the study, provided they met the inclusion criteria.

Inclusion and exclusion criteria for Pilot II was the same as Pilot I, except we included young and middle-aged women and men (30 to 60 years of age). Pilot II was designed to address the shortcomings in Pilot 1. In Pilot II, men were included in the study to address the unmet mental health treatment needs of African American men. In addition, the age for inclusion was lowered in an effort to examine the effectiveness of the intervention with young and middle-aged African American men and women. Also, an attitudes measure was included in Pilot II to better understand African American men and women's attitudes toward seeking mental health services. The research questions for Pilot II were the same as Pilot I, with the addition of one question examining attitudes toward seeking mental health services.

Measures Pilot I

Screening measures.

GDS. The GDS is a 30-item, self-report rating scale used to screen for depression in adults >60 years of age. It has been validated in and used extensively with various older adults experiencing MDD. The GDS can be self-administered or administered by a clinician; in the present study, it was self-administered. The GDS consists of 30 items, which are scored *yes* (1) or *no* (0), with a possible range of scores from 0–30. Cutoff scores are as follows: *normal* (0–9), *mild depression* (10–19), *severe depression* (20–30; Yesavage et al., 1982). The GDS has shown acceptable reliability among older African Americans, with coefficient alphas ranging from .87 to .91 (Kurlowicz, Outlaw, Ratcliffe, & Evans, 2005). Our study had acceptable reliability with coefficient alpha of .87.

PHQ. The PHQ is a self-administered questionnaire that screens for depression, anxiety, alcohol, somatoform, and eating disorders in primary care (Spitzer, Kroenke, & Williams, 1999). PHQ-9 consists of 9 items and participants respond *not at all* (0), *several days* (1), *more than half days* (2), and *nearly every day* (3), and total scores can range from 0–27.

Interpretation of total score is as follows: 1–4 = minimal depression; 5–9 = mild depression; 10–14 = moderate depression; 15–19 = moderately severe depression; 20–27 = severe depression. The PHQ has strong diagnostic validity as evidenced by the following confidence intervals (CIs): any mood disorder (85–91 CI), major depressive disorder (91–95 CI), any anxiety disorder (89–93 CI), panic disorder (97–99 CI), probable alcohol abuse/dependence (93–97 CI), and any eating disorder (94–98 CI; Spitzer et al., 1999).

MMSE. The MMSE is an 11-item measure that tests five areas of cognitive function, including orientation, registration, attention and calculation, recall, and language. The maximum score is 30. The MMSE takes only 5–10 min to administer (Kurlowicz & Wallace, 1999). Although the MMSE is one of the most widely used measures to assess cognitive functioning, its utility among ethnic minorities and highly educated individuals has been problematic (Bohnstedt, Fox, & Kohatsu, 1994), such that ethnic

minorities have had lower MMSE scores compared with Caucasian adults with comparable level of cognitive impairment. More recently, Pedraza et al., (2012) have found African American adults had significantly lower unadjusted MMSE scores (23.0 ± 7.4) than did Caucasian adults (25.3 ± 5.4). Pedraza et al. recommend use of unadjusted MMSE scores when screening older African Americans for dementia, with an unadjusted MMSE cutoff score of 22/23. Thus, in the present study we used an unadjusted score of 23 or lower to indicate cognitive impairment. The MMSE was administered during screening to exclude individuals with cognitive impairment.

Depression measures. Participants completed depression measures at baseline, and at Weeks 6, 12, and 24 (3 months postintervention follow-up). The following depression measures were used.

Center for Epidemiologic Studies Depression Scale (CES-D). The CES-D scale is a 20-item self-report inventory developed by the National Institute of Mental Health (NIMH) to assess the frequency and severity of depression symptoms in the past week (Radloff and Locke, 2000). The 20 items are each scored 0–3, with a possible range of total scores from 0–60; depressive symptoms are defined by a standard cutoff score of 16 (Nguyen, Kitner-Triolo, Evans, & Zonderman, 2004). A recent study examining measurement adequacy of the 20-item CES-D among community-dwelling African Americans aged 59 and older found the Cronbach's alpha was acceptable (0.86; Foley et al., 2002). Our study generated a Cronbach's alpha of 0.85.

Hamilton Depression Rating Scale (HAM-D). The HAM-D is a semistructured, clinician-administered interview designed to assess severity of depression and the 17-item version of the HAM-D is the most common. A recent meta-analytic reliability generalization study of the HAM-D found the coefficient alpha was .79, with 95% confidence limits of .78 and .79 (López-Pina, Sánchez-Meca, & Rosa-Alcázar, 2009). Applications of the HAM-D scale, in general, is acceptable because internal consistency over the critical cutoff point of 70 is usually the accepted minimum advisable reliability (Nunnally & Bernstein, 1994). Thus, in the present study, with use of the 17-item version of the HAM-D, we had an acceptable reliability of 0.72.

Feasibility measures. Feasibility was assessed by examining rate of recruitment and retention for the duration of the study. The following were used: (a) Recruitment and Retention Tracking (RRT) was completed throughout the trial to track recruitment, retention, and dropout; and (b) an attendance log (AL) was used throughout the trial to record attendance to the OHDC.

Acceptability measures.

Client Satisfaction Inventory (CSI). To assess client satisfaction with counseling, the CSI–Short Form (CSI-SF) was completed at the end of the intervention at Week 12. The CSI-SF consists of 9 items, and clients respond to each item via a 7-point Likert scale anchored from 1 = *none of the time* to 7 = *all of the time*. Total scores on this scale range from 0 to 100, with higher scores indicating higher levels of satisfaction (McMurtry & Hudson, 2000). The total score, *S*, is computed as $S = (\text{Sum } (Y) - N)(100)/[(N)(6)]$, where *Y* is the score for an item and *N* is the total number of items correctly completed by the respondent (McMurtry & Hudson, 2000). The CSI-SF is reported to have an alpha of .89 (McMurtry & Hudson, 2000), and in the present study, we had an acceptable alpha of 0.75 (Nunnally & Bernstein, 1994).

Quality of life (QOL). QOL conceptualized as physical and mental health was measured by self-report using the Short Form Health Survey (SF-12; Resnick & Nahm, 2001). The SF-12 was developed to measure physical health (role limitations resulting from physical health problems, bodily pain, general health, energy, and fatigue), and mental health (social functioning, role limitations resulting from emotional problems, psychological distress, and psychological well-being). Scores range from 0–100 ($M = 50$, $SD = 10$), and higher scores indicate better QOL. In a recent study examining use of the SF-12 among low-income African Americans, it demonstrated good internal consistency reliability, with alpha coefficients of 0.80 for physical health status and 0.78 for mental health status (Larson, Schlundt, Patel, Beard, & Hargreaves, 2008). In our study, we had acceptable Cronbach's alpha of 0.76 for both the physical health and mental health status (Nunnally & Bernstein, 1994). Participants completed the SF-12 at baseline and at Weeks 6, 12, and 24-week follow-up.

Physical health problems. To further measure physical health problems and their impact on QOL, the Physical Health Outcome (PHO) measure was used to obtain information about physical health problems and whether these health problems affected activities of daily living (ADLs). In the Wisconsin Longitudinal Study, the PHO was found to have acceptable reliability in assessing participants' self-report of physical health problems (Miech & Hauser, 2001). In the present study, the PHO was modified to include illnesses that are more prevalent among African Americans, such as stroke and sickle cell anemia. Participants were asked to indicate whether they have been told by a health care provider they have the condition, and to indicate the degree of interference in performing daily life activities from the condition. The total number of health problems was computed and degree of interference was calculated. Participants completed the 31-question PHO at baseline and at Weeks 6, 12, and 24-week follow-up.

Demographic questionnaire. Demographic information including age, education, income, marital status, health insurance status, employment status, type of housing, and living arrangement were self-reported. The demographic questionnaire was completed at baseline.

Measures Pilot II

Measures were the same as Pilot I except for the following changes. Because participants in Pilot II were ages 30–60, an assessment for cognitive impairment was not performed and the MMSE was deleted from the measures. To reduce participation burden, QOL was measured with only the PHO, and SF-12 was not used. Similarly, only the CES-D was used to measure depression symptoms and HAM-D was not used. Added to the measures was the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS). The IASMHS consists of 24 items and measures attitudes associated with seeking mental health services in the following three dimensions: (a) psycho-

logical openness, (b) help-seeking propensity, and (c) indifference to stigma. Scores range from 0 to 96, with subscale scores ranging from 0 to 32, and higher scores are more positive. The IASMHS internal consistency for the full scale is reported at 0.87 and test–retest reliability of $r = .85$ (Mackenzie, Knox, Gekoski, & Macaulay, 2004). In our study, internal consistency of the full IASMHS was 0.98.

Procedures

The two pilot studies were approved by the local university institutional review board, and all participants provided written informed consent.

The samples for the two pilots were drawn from a suburban city in the Midwest. Emphasizing community-engaged research, we worked with community health clinics and agencies to recruit participants. Local health clinics serving African Americans were informed of the study and agreed to refer patients/clients. Specifically, information sessions were held at local clinics to inform clinical staff and receptionists about the study to facilitate appropriate identification and referrals. Study flyers were posted in clinic lobby and waiting areas. Community agencies with existing relationships and partnerships with our study team readily endorsed the study and publicized it in the African American community. For example, the African American Council of Churches agreed to place a study flyer in their Sunday church program. The Urban League and local senior housing complexes offered to put flyers in their common office areas and in their resource packets for community members.

All eligible individuals 60 years and older expressing interest in the study were screened using the GDS, PHQ, and MMSE after providing written informed consent, and individuals between 30 and 60 of age were screened with the PHQ. Upon meeting inclusion criteria, participants were enrolled in the study and attended the 12-week OHDC intervention and a 3-month booster session. Data were collected from participants at baseline, and at Weeks 6, 12, and 24 (3 months postintervention).

Statistical Analysis

Pilot studies I and II used descriptive statistics and d-family effect sizes (Cohen, 1988) to describe the data. General linear mixed model for repeated measures using compound symmetry covariance matrix was used to assess changes in the outcome measures (CES-D, SF-12, and PHO) with time contrasts assessed according to described methods (Kenward & Roger, 1997).

Results

Pilot I

Demographics and health insurance status for participants in Pilots I and II is are reported in Table 2.

Feasibility and acceptability. Twenty-nine women were assessed for eligibility and 18 of them met inclusion criteria and were invited to enroll in 2 OHDC groups (9 women per group). Seventy-three percent ($N = 15$) of the women were retained over the 6-month course of the study. All women who completed the study reported being very satisfied with the treatment, with a mean satisfaction score of 90.1 and $SD = 14.5$.

Effects on symptoms of depression. In the OHDC intervention, symptoms of depression were compared over time using general linear mixed model for repeated measures using compound symmetry covariance matrix with time contrasts assessed according to methods described by Kenward and Roger (1997). Only women with ratings at all four times were included in the analyses (baseline, Weeks 6 and 12, and 3-month follow-up). Depression scores on the CES-D decreased significantly from baseline ($M = 24.1$, $SD = 11.22$) to Week 6 ($M = 19.0$, $SD = 11.9$) $p < .019$; baseline to Week 12 ($M = 18.8$, $SD = 12.2$), and from baseline to the 3-month follow-up ($M = 17.5$, $SD = 11.36$) $p < .027$, suggesting changes from moderate to mild depression (Figure 1). There was also a significant negative time effect $\beta = -2.04$ ($SE = 0.98$), $p = .04$, and an average of .38 effect size. Also, scores on the HAM-D decreased significantly showing a negative time effect $\beta = -3.68$ ($SE = 1.48$), $p = .01$.

QOL. Statistically significant changes were indicated in QOL as measured with the SF-12. Specifically, scores on physical health showed a mean difference of 4.2 from baseline ($M = 30.7$, $SD = 9.3$) to Week 6 ($M = 34.9$, $SD = 12.6$) $p < .017$, but did not show any significant changes at the other time points $\beta = 0.75$ ($SE = 0.76$), $p = .32$. Scores on mental health showed significant differences from baseline ($M = 39.3$, $SD = 13.9$) to Week 12 ($M = 49.3$, $SD = 13.0$) $p < .01$, and Week 24 ($M = 48.2$, $SD = 10.4$) $p < .01$, with an overall significant increase over time ($\beta = 3.75$ ($SE = 0$ .92), $p < .001$). PHO, the other QOL measure, had no significant change in number of physical health conditions ($\beta = -0.006$ ($SE = 0.006$), $p = .33$); however, there was a significant change in interference from these physical health conditions over time as indicated by $\beta = -0.039$ ($SE = 0.06$), $p = .56$.

In summary, results of Pilot I indicated the OHDC was feasible and very acceptable to older African American women (age 60 and older) with depression. In addition, depression symptoms decreased significantly showing an average 0.38 effect size, and significant changes in QOL were indicated.

Pilot II

Demographics and health insurance status for participants in Pilot II are reported in Table 2.

Feasibility and acceptability. Fifty African Americans (25 women and 25 men) were assessed for eligibility, and 40 of them met inclusion criteria and were invited to enroll into the study. Eighty-seven percent ($N = 35$, $n = 18$ women and $n = 17$ men) of participants were retained over the 6-month course of the study. Sixty-one percent ($n = 11$) of women and 71% ($n = 12$) of men fully completed treatment. Overall, 66% completed the full intervention. Mean satisfaction among women was 91.7($SD = 10.8$) and men was 90.0 ($SD = 10.8$); there was a significant difference in satisfaction by gender (men $M = 36$, women $M = 43$, $p < .03$).

Table 2. *Demographic Characteristics of Participants in Pilot I and II*

Characteristic	Pilot I (N = 15)		Characteristic	Pilot II (N = 35)	
	M (*SD*)	Min–Max		*M* (*SD*)	Min–Max
Age (years)	75 (5.52)	64–82	Age (years)	51 (8.02)	33–63
Number of children	4.69 (3.8)	0–16	Number of children	2.72 (2.40)	0–11
Education	*n* (%)		Education	*n* (%)	
Elementary	0 (0%)		Elementary	1 (2.9)	
Completed 8th grade	9 (60%)		Completed 8th grade	2 (5.9%)	
High school or GED	3 (20%)		High school or GED	13 (38.2%)	
2-year college or Tech	0 (0%)		2-year college or Tech	7 (20.5%)	
Bachelor's degree	1 (6.7%)		Bachelor's degree	3 (8.8%)	
Master's degree	0 (0%)		Master's degree	3 (8.8%)	
Doctorate degree	0 (0%)		Doctorate degree	1 (2.94)	
Other (some college)	2 (13.3%)		Other (JD, some college)		
			Completed 10th grade	7(20.6%)	
Income			Income		
$0–10,000	10 (77%)		$0–10,000	18 (54.6%)	
$10,001–20,000	2 (15.3%)		$10,001–20,000	4 (12.2%)	
$20,001–30,000	0 (0%)		$20,001–30,000	5 (15.2%)	
$30,001–40,000	0 (0%)		$30,001–40,000	3 (9.1%)	
$40,001–50,000	0 (0%)		$40,001–50,000	1 (3.0%)	
$50,001–60,000	1 (7.7%)		$50,001–60,000	1 (3.0%)	
$60,001–70,000	0 (0%)		$60,001–70,000	1 (3.0%)	
Socioeconomic status			Socioeconomic status		
Working class	2 (13.3%)		Working class	20 (60.6%)	
Middle class	1 (6.7%)		Middle class	9 (27.3%)	
Upper middle class	0 (0%)		Upper middle class	1 (3.03%)	
Upper class	0 (0%)		Upper class	0 (0%)	
Retired	12 (80.0%)		Retired	3 (9.1%)	
Health insurance Yes	No		Health insurance Yes	No	
13 (87%)	2 (13%)		27 (76%)	8 (24%)	

Effects on depression symptoms. In the OHDC intervention group, symptoms of depression were compared over time using a general linear mixed model for repeated measures; compound symmetry covariance matrix with time contrasts was assessed according to methods described by Kenward and Roger (1997). Depression symptoms across both genders decreased significantly from baseline (M = 26.9, SD = 9.6) to Week 6 (M = 17.7, SD = 8.0) $p < .000$, with a mean difference of 9.0, indicating a significant change from moderate to mild depression. Also, significant decreases for women and men were evident from baseline (M = 26.9, SD = 9.6) to Week 12 (M = 16.5, SD = 1.5), with a mean difference of 10.3, and the 3-month follow-up (M = 15.3, SD = 7.3) $p < .00$, with a mean difference of 11.6., indicating a significant change from moderate depression to no depression among both men and women. There was also a significant negative time effect with $\beta = -3.94$ (SE = 0.61), $p < .001$ (Figure 2) and fairly large effect size for the men (1.01), and a moderate effect size for the women (0.41; Figure 3). There was no gender effect, $\beta = 0.15$ (SE = 2.08), $p = .94$ (Figure 2).

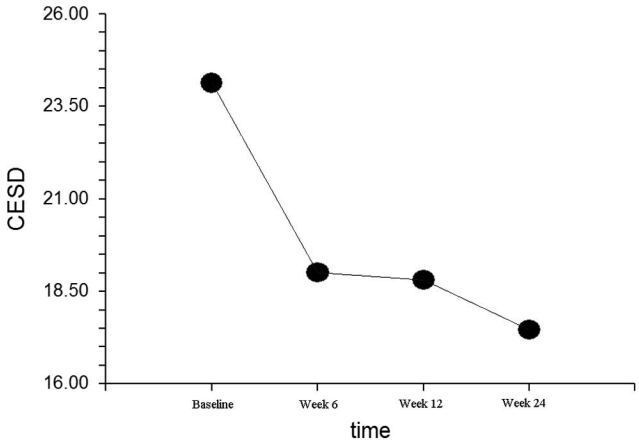

Figure 1. Reduction in depression symptoms: Pilot 1.

QOL. QOL was measured using PHO. Findings indicated the number of physical health outcomes (conditions) remained stable, with no significant changes over time for both men (baseline M = 3.6, Week 12 M = 3.9) and women (baseline M = 4.8, 24-week follow-up M = 4.0). Also, there was no change in interference from physical health conditions ($\beta = -0.22$ (SE = .18), p = .22).

Attitudes. Findings showed stability in attitudes toward seeking mental health services, with no significant changes from baseline to Week 12, indicating both male and female participants endorsed low openness to seeking mental health services (baseline M = 25, Week 12 M = 22), low psychological openness (baseline

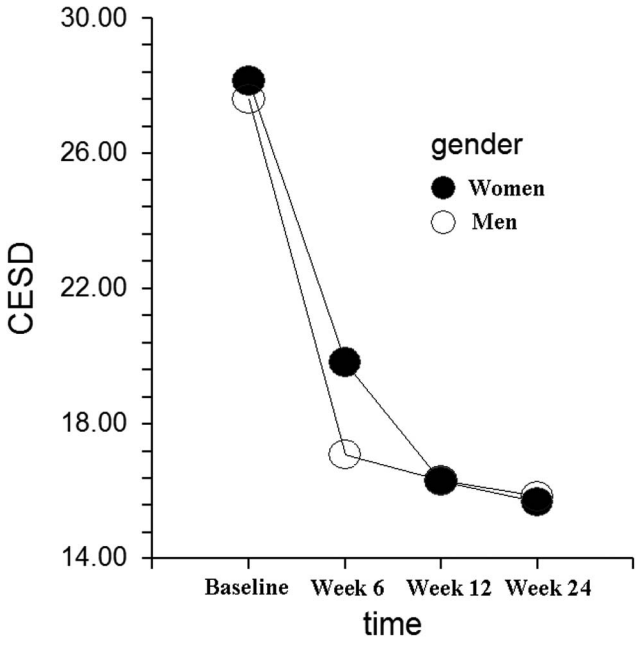

Figure 2. Reduction in depression symptoms: Pilot 2.

M = 19.6, Week 12 M = 16.6) and remained concerned about stigma (baseline M = 21, Week 12 M = 18) associated with seeking mental health services. No significant gender differences were found.

In summary, results of Pilot II indicated the OHDC is feasible and well liked by both African American men and women participants. This group also experienced a significant reduction in symptoms of depression indicating an effect size of 1.01 for men and 0.41 for women. QOL remained stable, and no significant changes in attitudes toward seeking mental health services were evident.

Discussion

The findings provide evidence that the OHDC benefits African American adults with MDD. In particular, the OHDC is feasible and acceptable to African American men and women, because there were high rates of retention and satisfaction with treatment. Our findings on feasibility suggest we were able to execute the study by recruiting and retaining participants in the study, many of whom completed the full treatment. Also, with appropriate training and weekly supervision, the clinicians were able to successfully treat research participants. In addition, from our acceptability findings we surmise the tolerability and appropriateness of the OHDC from participants' perspective were satisfactory (Almirall, Compton, Gunlicks-Stoessel, Duan, Murphy, 2012). These findings are important because they are in contrast to current research indicating African Americans have low rates of seeking mental health services, and those individuals who seek services have higher rates of premature termination from therapy (González et al., 2010; Wade & Bernstein, 1991).

The most significant finding in our studies was reduction in symptoms of depression. In both pilot studies, participants showed statistically significant reduction in symptoms of depression. These findings are consistent with literature supporting the benefits of culturally adapted treatments (Bernal, 2006; Muñoz & Mendelson, 2005; Nicolas, Arntz, Hirsch, & Schmiedigen, 2009; Rosselló & Bernal, 1999). In particular, Griner & Smith, (2006) found an average effect size of d = 0.45 for culturally adapted interventions. Similarly, in our studies we found average effect sizes of d = 0.38 (women age 60 and older), d = 1.01 (men ages

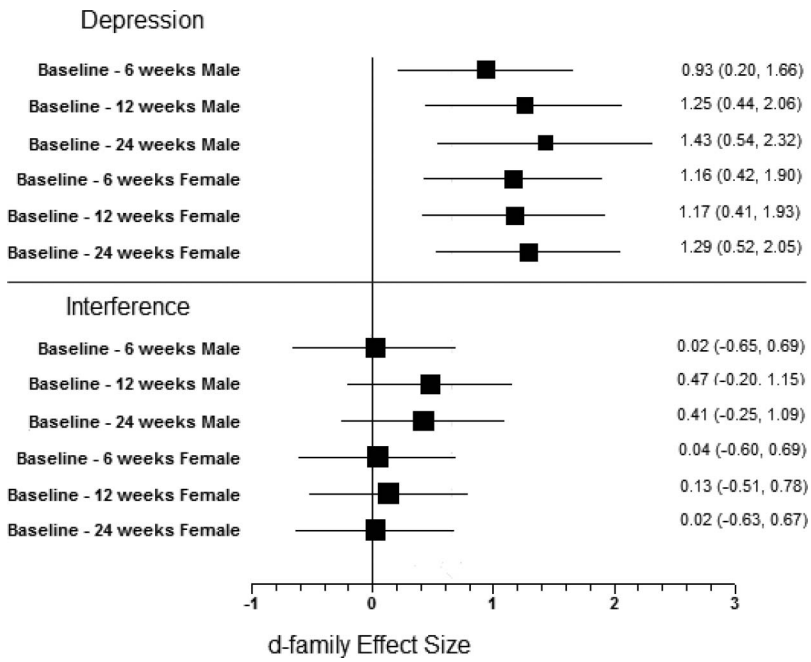

Figure 3. Effect sizes for Center for Epidemiologic Studies Depression Scale (CES-D) and interference: Pilot 2.

30–60), and $d = 0.41$ (women ages 30–60). In addition, our findings are consistent with the only other study we could identify that examined efficacy of a culturally adapted intervention in treating depression among African American adults (Kohn et al., 2002). However, unlike the Kohn study, which only focused on women ($M = 47$ years), our study included a sample of men and women ($M = 51$ years), and also included older women ($M = 75$ years). Thus, our findings are more informative regarding gender and age and can guide future research on gender and age specific depression interventions.

In addition to our study having statistically significant findings pertaining to reduction in depression symptoms, the findings also suggested clinically meaningful change. Jacobson and Truax (1991) seminal article postulates clinical significance (meaningfulness) involves two main questions: (a) Is the amount of change large enough to be considered reliable? (b) Are treated individuals distinguishable from "normal" individuals with respect to the target complaint?

The reduction in depression symptoms evident in our two pilot studies meets the criteria suggested by Jacobson and Truax. In particular, the medium to large effect sizes in Pilot I and II indicate the changes can be considered reliable. Furthermore, in Pilot I with only 6 weeks of treatment, participants evidenced symptom change from moderate depression to mild depression, and this change was maintained through the end of treatment. Similarly, in Pilot II reduction in symptoms changed from severe to mild by the end of treatment and at the 3-month follow-up most participants were no longer experiencing symptoms of depression. In addition, during treatment, participants shared anecdotally that they were feeling better as they were experiencing increased energy, motivation, and positive mood. These participants unsolicited sharing provides corroborating evidence of the clinically meaningful change participants experienced, which is consistent with Jacobson and Traux recommendation that consumers expect psychotherapy to accomplish goals including feeling better.

Given the high rate of disability associated with MDD among African American adults (Williams et al., 2007), we examined QOL. Surprisingly, there was no significant change in QOL. This lack of change might be because of the time span of the OHDC. The OHDC is 12 weeks, which might not be enough time by 6-week, 12-week, and 3 month follow-up for changes in QOL to take place. A longer follow-up might provide more opportunity to assess change. Also, no literature could be identified examining changes in QOL among African American adults with MDD, hence it is difficult to determine with certainty how much time is needed to effect change in QOL for this group.

Although participants spent 12 weeks in the OHDC intervention and reported high satisfaction with the intervention, there was no change in attitudes toward seeking mental health services. One possible explanation for no change might be because of participants' knowledge of the experimental nature of the intervention and that it was not currently available in clinics. Thus, if they were to seek mental health services after the study was completed, they would not get the OHDC, which now appears to be their preferred treatment based on the high rates of satisfaction scores on the Client Satisfactory Inventory (CSI).

These pilot studies were designed to test feasibility and acceptability of a culturally adapted intervention, the OHDC. One limitation of the results is the small sample sizes. However, although our sample was small, it was consistent with sample sizes in other pilot studies, and study results were helpful in guiding other research. In particular, we are currently testing the OHDC in a large, randomized controlled trial of African American adults with depression. If efficacious, it will be the first large trial to provide evidence of benefit for a culturally adapted treatment for African American adults with depression.

Given the increasing prevalence of late life depression among older adults, and the increase in the aging population, future research testing the effectiveness of the OHDC with a larger sample of older African American adults is warranted. We have also had clinicians express interest in using the OHDC to treat depression among African American teenagers and young adults. However, the OHDC has not yet been tested with young African Americans, so future research in this area is needed, hence the need to test the OHDC effectiveness using a life course perspective.

In sum, our results from the pilot studies suggest the OHDC is feasible, well liked by participants, and effective in reducing symptoms of depression among African American adults. Given that the OHDC is new, more research is needed to explore its full impact, not only among African Americans using a life course perspective, but possibly other racial and ethnic minority groups.

Keywords: culturally adapted treatment; depression; African Americans

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