



Published in final edited form as:

*Mindfulness (N Y)*. 2017 December ; 8(6): 1532–1543.

## Perceptions of Mindfulness in a Low-income, Primarily African American Treatment-Seeking Sample

Claire Adams Spears<sup>1,2</sup>, Sean C. Houchins<sup>2</sup>, Wendy P. Bamatter<sup>2,4</sup>, Sandra Barrueco<sup>2</sup>, Diana Stewart Hoover<sup>3</sup>, and Rokas Perskaudas<sup>2</sup>

<sup>1</sup>Division of Health Promotion and Behavior, School of Public Health, Georgia State University, Atlanta, GA

<sup>2</sup>Department of Psychology, The Catholic University of America, Washington, DC

<sup>3</sup>Department of Health Disparities Research, The University of Texas MD Anderson Cancer Center, Houston, TX

<sup>4</sup>Department of Psychiatry, Yale University School of Medicine, New Haven, CT

### Abstract

Individuals with low socioeconomic status (SES) and members of racial/ethnic minority groups often experience profound disparities in mental health and physical well-being. Mindfulness-based interventions show promise for improving mood and health behaviors in higher-SES and non-Latino White populations. However, research is needed to explore what types of adaptations, if any, are needed to best support underserved populations. This study used qualitative methods to gain information about a) perceptions of mindfulness, b) experiences with meditation, c) barriers to practicing mindfulness, and d) recommendations for tailoring mindfulness-based interventions in a low-income, primarily African American treatment-seeking sample. Eight focus groups were conducted with 32 adults (16 men and 16 women) currently receiving services at a community mental health center. Most participants (91%) were African American. Focus group data were transcribed and analyzed using NVivo 10. A team of coders reviewed the transcripts to identify salient themes. Relevant themes included beliefs that mindfulness practice might improve mental health (e.g., managing stress and anger more effectively) and physical health (e.g., improving sleep and chronic pain, promoting healthier behaviors). Participants also discussed ways in which mindfulness might be consistent with, and even enhance, their religious and spiritual practices. Results could be helpful in tailoring mindfulness-based treatments to optimize feasibility and effectiveness for low-SES adults receiving mental health services.

---

Corresponding Author: Claire Adams Spears, Ph.D., Assistant Professor, Division of Health Promotion & Behavior, School of Public Health, Georgia State University; cspears@gsu.edu; Phone: 404.413.9335, Fax: 404-413-1140.

#### Conflict of Interest:

The authors declare that they have no conflict of interest.

#### Author Contributions:

CAS: designed and executed the study, led focus groups, conducted qualitative coding, and wrote the paper. SCH and WPB: collaborated with the design of the study, implementation of focus groups, qualitative coding, and manuscript writing. SB, DSH, and RP: collaborated with the design of the study, interview guide development, and manuscript writing.

Ethical Approval: This study was approved by the university's Institutional Review Board and was conducted in accordance with the ethical standards in the 1964 Declaration of Helsinki and its later amendments.

Informed Consent: All participants gave their informed consent prior to their inclusion in the study.

## Keywords

mindfulness-based interventions; racial/ethnic minorities; low socioeconomic status; qualitative research

---

## Introduction

Members of racial/ethnic minority groups and individuals with lower socioeconomic status (SES) often experience heightened psychosocial stress (e.g., financial stress, discrimination), mental and physical health issues, and premature mortality, compared to high-SES and non-Latino White individuals (e.g., Matthews and Gallo 2011; Myers 2009). In addition, members of racial/ethnic minority groups often have insufficient access to quality healthcare and are less likely to seek health services (Myers 2009; Scheppers et al. 2006). Potential barriers to treatment seeking include ineffective communication between patients and providers and cultural insensitivity (Erves et al. 2016; Scheppers et al. 2006; Schubart et al. 2015). Thus, it is essential to develop and disseminate innovative and culturally sensitive strategies for promoting health and well-being in underserved populations.

Researchers have recently highlighted the potential of mindfulness-based interventions (MBIs) for improving health and quality of life in low-SES and racial/ethnic minority populations (e.g., Fuchs et al. 2013). Mindfulness, which entails purposeful, present-focused attention with an attitude of acceptance and non-judgment (Kabat-Zinn 1994), may foster less emotional reactivity and more adaptive responses to stressors (Gu et al. 2015). Practicing mindfulness could help to promote resilience in the face of chronic stress experienced by socioeconomically disadvantaged populations. MBIs have received empirical support for reducing stress, decreasing risk of relapse to depression, improving coping with chronic pain, and promoting healthier behaviors (Chiesa and Serretti 2011; Veehof et al. 2016; Khoury et al. 2015; Chiesa and Serretti 2014; de Souza et al. 2015; Mantzios and Wilson 2015). However, the vast majority of mindfulness research has been conducted with higher-SES and non-Latino White populations (Khoury et al. 2015).

Some emerging research suggests benefits of mindfulness in underserved populations (e.g., Amaro et al. 2014; Fuchs et al. 2013; George et al. 2015; Palta et al. 2012; Roth and Robbins 2004). For example, older African American women indicated that a Mindfulness-Based Stress Reduction (MBSR) course helped them to cope with negative emotions, pain, and financial stress (Szanton et al. 2011). In another study, after participating in an MBSR program, low-income, predominantly African American women with post-traumatic stress disorder and histories of intimate partner violence reported feeling less distressed and more accepting of themselves (Dutton et al. 2013). Preliminary research suggests that Mindfulness-Based Relapse Prevention may be more effective than traditional substance abuse interventions for racial and ethnic minority women (Witkiewitz et al. 2013). Witkiewitz et al. speculated that practicing an accepting, compassionate perspective toward oneself could be especially helpful for individuals who have been marginalized.

Research should not only continue to examine the effects of MBIs on mental and physical health in more diverse populations, but also consider treatment adaptations that may be

needed (Amaro 2014; Sobczak and West 2013). Tailoring evidence-based interventions for specific populations can be crucial for improving treatment engagement and outcomes (Bernal 2006; Bernal et al. 1995; Miranda et al. 2005). For example, in their adaptation of MBSR for relapse prevention among low-income African American and Latina women with trauma histories, Vallejo and Amaro (2009) found it useful to add more structured didactics on the role of stress in relapse, to utilize visual aids (e.g., a flipchart showing associations among thoughts, emotions, and bodily sensations), to shorten the body scan and guided meditations, and to use the term “daily practices” instead of “homework.” Sobczak and West (2013) highlighted several issues to which therapists should be sensitive in using mindfulness-based approaches with individuals from disadvantaged backgrounds, including the difficulties associated with practicing emotional acceptance in the face of extreme and ongoing hardships. The benefits of integrating mindfulness with personal religious and spiritual practices were also discussed.

Qualitative research can be invaluable for informing treatment adaptations, and several qualitative studies have been conducted to understand experiences with mindfulness programs (although not typically with low-SES or racial/ethnic minority populations). Wyatt et al. (2014) conducted a systematic review of qualitative studies of mindfulness-based interventions for adults with mental health difficulties. Fifteen studies were found to meet their search criteria, with number of participants (3 to 32) and mental health concerns varying widely. Wyatt and colleagues highlighted eight overarching themes: 1) Prior experiences and expectations (e.g., expectations that mindfulness might offer a “quick fix”; skepticism about mindfulness), 2) Normalizing and supportive process of the group, 3) Relating differently to thoughts and feelings (e.g., improved ability to manage difficult emotions), 4) Acceptance (e.g., avoiding self-judgment), 5) Sense of control and choice, 6) Relationship with self and others, 7) Struggles (e.g., difficulty finding time to practice mindfulness in daily life), and 8) Awareness (e.g., slowing down to notice thoughts and emotions). Wyatt et al. emphasized that group leaders should be attentive to participants’ pre-existing expectations, clearly explain the aims of the intervention, and promote an open-minded attitude about mindfulness practice.

The vast majority of qualitative studies of mindfulness so far have examined participants’ perceptions of interventions *after* having completed them (typically multi-week programs like MBSR). While this information is certainly important, it would also be informative to learn about preexisting perceptions of mindfulness (before formal practice) and immediate responses to specific mindfulness practices (as contrasted with retrospective reports after several weeks of practice). This could enhance the field’s ability to communicate about mindfulness, as well as design MBIs for people who may not have had much exposure to these practices. The current study sought to gather information about perceptions of and experiences with mindfulness among low-SES, primarily African American adults seeking mental health services. Depending on their level of interest and perceived benefit, the findings could be used to adapt mindfulness-based programs for improving health and quality of life in similar populations.

## Method

### Participants

Participants were recruited from a community mental health clinic serving adults from diverse backgrounds with a variety of mental health needs. In order to qualify for services at this particular clinic, individuals must be below 200% of the federal poverty level and may have Medicaid, Medicare, or no health insurance. Individuals were eligible if they were between the ages of 18–65, spoke English, and had not participated in the mindfulness-based smoking cessation groups being offered at the same clinic (because individuals who had attended these groups would already have had significant exposure to a mindfulness-based intervention).

Eight focus groups were conducted with 32 adults (16 men and 16 women). Most participants (91%) were African American (one person identified as American Indian/Alaska Native, one as White, and one as more than one race/ethnicity). Participants' mean age was 50 ( $SD = 7.5$ , range 27–60), and 73% reported an average annual household income of less than or equal to \$18,000. Most (63%) reported having completed 12 years or less education. Many reported being disabled/unable to work (47%) or unemployed (44%). Most (69%) reported being Christian. Although psychiatric diagnoses were not specifically assessed, in focus groups several participants indicated having been diagnosed with psychiatric disorders including depressive disorders, anxiety disorders, bipolar disorder, schizophrenia, schizoaffective disorder, and personality disorders.

### Procedure

Focus groups took place at the community mental health clinic and lasted up to 120 minutes. During focus groups, participants were asked to discuss and reflect on mindfulness and specific mindfulness practices, including appeal, relevance, language, acceptability, and perceived feasibility. Participants were invited to participate in two 5-minute mindfulness exercises (mindful breathing and mindful body scan [core components of MBSR]; Kabat-Zinn 1990). Right before these exercises, the group leader offered some psychoeducation about mindfulness: “Mindfulness is a way of paying attention right here, right now, to whatever is happening, with an attitude of acceptance and non-judgment. Mindfulness is paying attention to our experience and accepting it for what it is without judging it or trying to change it.” In the mindful breathing exercise, participants were instructed to focus their attention on their breath. Whenever their minds wandered, they were encouraged to non-judgmentally notice that and bring their attention back to their breath. For example, they were instructed:

Sooner or later (usually sooner), your mind will wander away from the focus on the breath to something else.... This is perfectly OK. It's simply what the mind does. It is not a mistake or a failure – try not to judge yourself for it.... You may want to notice briefly where the mind has been. Then, gently bring your focus back to the breath.

In the body scan, participants were instructed to focus their attention on different parts of their body, starting with the toes and moving up to the head. Moving through each part of

the body, the group leader indicated, “No need to feel anything particular or change anything. . . . Try to bring an attitude of curiosity as you notice whatever it is that you feel.” Again, participants were encouraged to notice when their minds wandered and to non-judgmentally bring their focus back to their body.

## Measures

Before the focus groups, participants completed a background questionnaire that assessed demographic information and asked, “Have you ever practiced mindfulness or meditation?” and if so, what they had done.

During focus groups, the semi-structured interview guide included following topics:

**Initial experiences with and perceptions of “mindfulness” and “meditation”**—Questions were: “Have you heard the term mindfulness?” “What is the first thing that comes to mind when you think of the word mindfulness?” (and then “meditation”), and “Have you ever tried meditation? If so, what did you think of it?”

**Experiences with the in-session exercises**—Questions were: “What was your experience in this exercise?” “How did you feel during and after the exercise?” “What did you like about it?” and “What did you not like about it?”

**Thoughts about how mindfulness-based practices might influence mental and physical health**—Participants were asked, “Do you think that practicing mindfulness regularly would influence your health in any way? If so, how?” When participants expressed interest in practicing mindfulness, they were asked about barriers and facilitators to engaging in mindfulness practice in daily life.

**Suggestions for the development and dissemination of mindfulness-based programs**—Questions about ways of describing mindfulness were: “How would you describe mindfulness to your friends?” and “What other words might you use to describe mindfulness?” Participants were also asked, “Would you be interested in coming to a program that teaches mindfulness? Why or why not? What suggestions do you have for improving this type of program?”

## Data Analysis

All sessions were audio-recorded and transcribed verbatim. Transcripts were managed and analyzed utilizing QSR International’s NVivo 10 software. A team of three researchers, all of whom were present during focus groups, conducted coding of the qualitative data. In order to promote reflexivity (i.e., “explicit self-aware meta-analysis,” Finlay 2002, p. 209), the coders took personal notes, wrote memos in NVivo, and engaged in active dialogue throughout the process. Data coding and analysis followed both inductive and deductive approaches. An initial set of codes was developed from the interview topics and the conceptual framework, with additional codes identified from concepts that emerged from the data. The objective of the data coding process was to capture as many concepts as possible and then to examine the relationships and patterns of the concepts within and across

transcripts to identify conceptual linkages or themes (Ayres et al. 2003; Ryan and Bernard 2003). The coders first reviewed the transcripts to identify codes using an inductive process. Once an initial list of codes was established, all coders independently coded the same transcript and met to discuss findings, resolve inconsistencies, and refine the coding scheme. The remaining transcripts were each independently coded by two coders, with regular meetings to refine the coding scheme as needed. This method of constant comparison was used to identify themes within the data (Corbin and Strauss 2008). This approach involves comparing concepts across categories to identify patterns and connections among concepts. When there were discrepancies in coding, the team revisited the original detailed descriptions of the codes and engaged in in-depth discussion until consensus was reached. Similarities and differences were examined by gender; overall, similar themes emerged across female and male focus groups.

## Results

### Initial Experiences with and Perceptions of Mindfulness and Meditation

Based on the background questionnaire, five women (31.3%) and two men (12.5%) reported that they had practiced mindfulness or meditation previously. In describing their past mindfulness or meditation experience, participants noted “yoga,” “breathing techniques,” “meditating on the Bible,” listening to music, “[sitting] quietly with my clear mind (no thoughts),” and “holistic meditation.” During focus groups, half of female participants (8 of 16) and 81% of male participants (13 of 16) indicated that they had heard the term “mindfulness.” However, several of those who had heard the term indicated that they were not sure what the term meant. Many participants indicated that mindfulness is related to present-focused attention or awareness (e.g., “paying attention,” “staying focused”). One man stated that “[with mindfulness, you] stay out of your memory bank. Stay out of your imagination. Stay in the present.” Some participants connected mindfulness to relaxation or positive thinking. One woman indicated: “I look at [mindfulness] as having a positive outlook even when the situation be bad.” A man noted: “What I do to relax is mindfulness. I think about the present, all the good things in life that’s happened to me.”

When participants were asked what comes to mind when they think of meditation, they most commonly indicated that meditation was related to quietness, calmness or relaxation. Several participants noted that they meditate in the context of religious/spiritual experiences (e.g., praying, listening to hymns, reading sacred texts). Some described meditation as a way to care for oneself or “center” oneself. One woman described, “To me meditation is sort of like a gift. It’s like treating yourself because meditation is sort of like strengthening yourself and with the hustle and bustle of every day.” Some participants indicated that they meditate during daily life activities. One man described, “I meditate. I mean what I call meditation, like focus... when I focus on something like when I go swimming, and I’m allowed to be free, my mind just being in that water, and you just open and it relaxes me.” A minority of the participants indicated that their therapists had taught them mindfulness techniques.

Participants’ discussion of meditation revealed a broader application of the term than the formal definition of mindfulness meditation as present-focused nonjudgmental attention. Many participants perceived meditation as the absence of thoughts, a focus on positive

thoughts, or blocking out distressing thoughts. For example, one woman said, “Meditation to me is just not having any thoughts... just sitting quietly.” Another woman indicated that meditation is “thinking about nothing,” and another said that meditation is to “space out.” One man described meditation as “to keep your mind on positive thoughts.”

### **Experiences with In-Session Mindfulness and Perceived Implications for Mental Health**

In participants’ discussion of their experience with the in-session mindfulness practice (mindful breathing and body scan) and their perceptions of how practicing mindfulness might impact their mental health, relevant themes included: attention/awareness, acceptance, relaxation, stress management, anger management, and empowerment/agency. Other mental health benefits not subsumed under these categories included building inner strength and positive emotions, focusing on personal goals/values, and coping with psychiatric symptoms.

**Attention/awareness**—Participants noted that mindfulness practice involved or helped them to focus, concentrate, be more aware, or pay attention. For instance, one woman indicated:

I liked that I had to really focus on one thing. I’m always scattered. So I had to focus on one. And that focus mainly was on the breath...So it was kinda like teaching me how to concentrate and focus on one thing instead of always being scattered.

One man described:

You see, I was able to do that because I was focused on what I was doing...It was like every time my mind tried to wander, it came right back to me, to what I was doing. That was nice... So I was more able to actually meditate and focus on my breathing.

**Acceptance**—Participants indicated that mindfulness practice involved acceptance or “letting go.” One woman indicated, “I liked permission to just allow myself to be and not have to fix anything or change anything.” Another said, “I feel better about myself knowing I don’t have to change anything, and that I can accept what’s going on in the world around me the way it is.”

**Relaxation**—Participants commonly reported that the in-session mindfulness practice was “relaxing,” “peaceful,” or “calming.” One woman indicated, “I learned to feel calm even when my mind is racing.” One man noted, “Wow. It seemed like my body just became so relaxed.” Similarly, another man said, “I think the breathing technique just calms you....You stick with that technique that you gave us. Just stick with the breathing because it calms you.”

**Stress management**—Participants frequently noted that mindfulness practice reduced stress or might help to manage stress more effectively. One woman said that the mindfulness practice “relieved some stress, tension... all of the tension that I carry with me every day.” Another woman suggested that mindfulness might help her to prepare for stressful

situations: “I was getting centered, grounded, preparing for the onslaught.” One man said, “What we are doing, the mindfulness, is for right now...a coping tool. If I’m in one of those stressful situations, bam - I can use my mindful exercise.”

**Anger management**—Participants noted that mindfulness might be helpful in coping with anger or irritability. One woman said:

If you’re about to get angry at somebody... you could stop, close your eyes, and just breathe for a few seconds and then, just think about what you’re about to say, then say it. So you won’t get the yelling and cursing and fighting and all of that kind of stuff.

Another woman described how her past experience with meditation helped with anger:

As I started doing [*meditation, as encouraged by therapist*] I got less agitated, I got less anger by people. And I’m not so aggressive.... Because I had so much anger, [my therapist] wanted me to try [meditation] to see if it can decrease my anger. And it has! It has! I don’t jump off the hinges now at every little thing somebody says. Now, I let it go in one ear and out the other and don’t react to it. Cause I used to react to it.

Relatedly, one man said, “You know, it’s something that I would have to practice... especially in moments when I get angry, or if I’m upset about something...”

**Empowerment/agency**—Participants also discussed mindfulness practice in the context of promoting empowerment or agency (e.g., self-efficacy, self-reliance, personal resources, being able to practice mindfulness on one’s own). One woman said,

You have to learn how, you know, self-meditation with yourself.... Because we used to depending on people that do stuff for you, and then when that person is not available, what are you going to do? You going to freak out? So you have to learn how to do stuff for yourself. Learn how to treat yourself and self-meditate for yourself. Can’t nobody deal with stress than the person that’s going through.

One man indicated, “The more I decide to learn about [mindfulness], I can help myself and I’d be able to help someone else.” Another man said, “I think learning how to do this, you know, like being able to do it on your own, without your instruction, I think it’d be very beneficial.”

**Other mental health benefits**—Participants also described other mental health benefits that did not fit into the above categories. Participants noted that mindfulness/meditation might help them to take time for themselves, focus on personal goals/values, or build inner strength. One man said, “[If I were to practice mindfulness] I would start listening more to myself, the inner self, about just trying to become better with myself.” Another man noted:

I’ve got to stay focused. I’m easy to get off track.... I’m just saying I’ve been doing wrong all my life pretty much. Now I’m trying to do something right in my life.... So being mindful, I know it’s easier for me to do something right. If I stay focused and stay mindful of my journey today, I’ve got a chance, I’ve got a chance.



Participants also noted that mindfulness practice might build self-worth and positive emotions:

You can also gain... it's weird for me to say this... self-worth. For me, I have low self-esteem. But this has really... I don't know how to say it. This technique we just tried, it has brought my self-worth up more than it was before, because when I came here, I wasn't feeling it. But now it's like I can go on about my day, and have a positive mood.

Finally, some participants indicated that mindfulness practice might help to diminish psychiatric symptoms such as racing thoughts. For example, one woman stated, "It's a good thing for me because I have racing thoughts a lot. And actually the fact that you commented throughout it slowed my thoughts down."

### Perceived Implications for Physical Health

Participants also perceived potential benefits of mindfulness practice for physical health. Relevant themes included: ameliorating effects of stress on health, improving sleep, promoting healthier behavior, and improving coping with pain/reducing pain.

**Ameliorating effects of stress on health**—Participants noted that mindfulness practice might help to minimize effects of stress on physical health. One woman said, "Physically it will help my blood pressure – it wouldn't be so high...because of stress." Another woman specifically mentioned relevance to stress in the context of diabetes:

My diabetes goes up and down because of stress.... So if I can calm my mind especially when my diabetes is acting up...because what happens is I get nervous, I get antsy, I tighten up, and after it's all over I'm exhausted. But if I can think to do the mindful exercise that will help me when I'm going through.

**Improving sleep**—Participants noted that mindfulness might help to improve sleep quality and/or quantity. One woman said, "That's a technique I would try when I can't go to sleep. ...when I'm twisting at night and my mind running....this would be something I would try." A man indicated, "Before I go to bed I think [mindfulness practice] would help me sleep more. Cause after going through a whole day, it's a time to like calm down and relax.... I would probably sleep more, sleep better."

**Encouraging healthier behaviors**—When asked about how mindfulness might impact their physical health, participants noted that the practice might promote changes in health behavior, including smoking cessation and healthier eating. One woman indicated, "I am a smoker that's been trying to stop forever, and the lowest I can get is two cigarettes a day. I can't seem to get below two cigarettes a day. So maybe incorporating something like this might help." Another woman said:

I'm thinking when you give the mind a chance to relax itself it will take you in a direction that's healthy.... For me it steers me away from harmful things. Especially with my diet.... This relaxation is like nourishing the mind, so nourishing the mind would also include feeding the body good nourishment.

One man described

I think [practicing mindfulness] would help me physically because I have a chance to look at myself in a different light. I know there are some things I need to work on, but this would bring it more into light on what I need to work on, like my smoking, dieting, exercise. I guess just having the time like this to go through every section of my body will give me something to focus on. What can I change right here, what can I change right here, what can I change right here? In every aspect I could change something.... just be aware of my intake, what I put in me.

**Reducing pain or improving coping with pain**—Participants noted that the in-session mindfulness practice reduced their pain, and one woman described the mindfulness practice as a “natural pain reliever.” Another woman noted, “My osteoarthritis. I always have pain somewhere, but it lessened since we did [the mindfulness practice].” One man described:

I’m a cancer survivor, so [during the body scan] I was concentrating most on where I had my cancer removed from, and I was makin’ that part of my body to me in my mind feel that it’s OK, that I’m not having any pain anymore, you know, and the muscles and tissues around it relaxed. I didn’t feel that tension, and it felt good for me.

### Discomfort with Meditation

Participants’ experiences with in-session mindfulness practice were not all positive. Several described uncomfortable experiences including: frustration with mind wandering or perceptions of “not doing it right,” physical pain/discomfort, and emotional pain/discomfort.

**Mind wandering/not “doing it right”**—Participants commonly described frustration with mind wandering or perceptions that because it was difficult to focus they were “not doing it right.” One man noted, “I still feel like I wasn’t doing it fully right...my mind was browsing all over the place.” Another stated, “My mind...did what it wanted to do anyway, bouncing in, bouncing out. Nothing that was really important but just thinking about a whole lot of topics other than breathing because it’s second nature.” Notably, participants voiced these concerns even though the group leader emphasized that mind wandering was normal and encouraged them not to judge themselves.

**Physical pain/discomfort**—Several participants noticed physical discomfort during in-session mindfulness practice, particularly during the body scan (in which they were instructed to notice physical sensations throughout their bodies). One woman noted, “I think we deal with pain a lot in our bodies and so when we concentrate on it, that’s when we feel it.” Similarly, a man said, “But then you said ‘back,’ and you know I had back surgery, so soon as you says back, it seems like my back start hurting. I was blocking out the pain, but when I focus on it, I felt it.” People also noted feeling “stuck” on parts of the body where they felt pain. For example, a woman described, “...When we got to the lower back part, I really felt that [pain]... I got stuck right there and then I couldn’t follow after that.” Participants also noted apprehension about noticing painful parts of the body. One man said,

“I didn’t want to go there, you know (*referring to a certain part of the body during the body scan*). I had a really serious surgery.”

**Mental discomfort**—In addition to physical discomfort, participants noted mental discomfort during the in-session mindfulness practice. One woman described “For your first time...it’s real scary. Them thoughts keep going and going and take you back where you been for a long time and come back the same way. It’s scary to me.” A man described:

I cannot sit here and say to you that every moment that I had my eyes closed I seen good things, cause I didn’t. I seen some things that I didn’t want to see.... You know, I have nightmares, I have a lot of bad thoughts.

The above descriptions suggest that in addition to having uncomfortable experiences during mindfulness practice, several of the participants also had difficulty tolerating unpleasant sensations (i.e., difficulty with distress tolerance, which is relatively common among individuals experiencing psychopathological symptoms; Leyro et al. 2010).

### **Discussion of Relationships between Mindfulness Practice, Religion and Spirituality**

Participants discussed religion or spirituality in the context of mindfulness or meditation. In all cases, participants perceived that mindfulness practice fit well with their personal religion or spirituality. For example, one man thought that mindfulness practice would “enhance” spirituality “because spirituality is dealing with the inner being, and the exercises are dealing with the inner self.” Some participants noted religious/spiritual practices (e.g., prayer) as examples of meditation. One woman said, “Meditation in church... Spiritually, music meditates me. I could do that at home all day.... I have a peace ... My mind do not be rushing and racing about, things in the world that is stressful, all those stuff I can’t change. So you carry on.”

Further, participants indicated that mindfulness practice might enhance the experience of reading religious texts. For example, a man indicated, “You read your Bible or your Quran, or whatever book you read, read that first and then meditate. Or meditate first and then read or say a prayer.” A woman noted, “When you read your Bible you’re mindful, you’re paying attention to what you’re reading in your Bible, right, so do you absorb that.” In a similar vein, participants noted that spiritual texts could be the focus of meditation. For example, one woman said:

When you’re doing your meditation... you can think on scripture that’s in the Bible. I’ve quite often done that. Just sit down and keep reiterating in your mind over and over again what that books says, what the Bible says, what the proverb says, or what Psalm says.

Some participants noted that mindfulness practice might enhance spiritual experiences. Women described meditation as a way to “get that strength for that contact with a higher power” and to “get stronger spiritually.” One woman said, “I think the mindfulness can help me be more transparent and will help me with my relationships with people and with God, because I’ll be more accepting.”

## Incorporating Mindfulness into Daily Life

Most participants indicated strong interest in practicing mindfulness on their own, commenting that they plan to “take [the practice] home...,” “especially on a hard day.” A number of men made statements like, “I’m going to adopt some of these techniques;” “The body scan is going home with me;” and “It’d be good if you do this every day, like daily practice.” In contrast, a small number of participants indicated that meditation was not something that “worked” for them. One woman said, “Meditation just doesn’t work for me, the sitting still. I’ve never been able to, you know, to get that to work for me.” A man indicated, “I have [tried meditation] in several of my groups. But I got nothin’ out of it.”

**Barriers**—Participants identified a number of potential barriers to regular mindfulness practice. For example, they noted difficulty finding the time to meditate in the midst of stressful lives. A woman said, “From the moment I get up until the moment I go to bed it’s like constant, there’s something going on.” Similarly, a man noted, “With all these appointments, I mean, things you have to do in the course of a day, it’s hard to just meditate.” One woman described: “I used to [meditate]... I don’t know what happened. I guess the stressors in my life just happened, and now I’m totally scattered. So I have to work up to that point all over again.”

Participants also noted that stressors often associated with low SES (e.g., unsafe neighborhoods, stress related to financial difficulties or unstable housing) could be barriers. One man said, “You gotta be careful with that (*referring to mindful walking*) because on the streets you gotta be aware of your surroundings.” Another said, “It’s hard to keep a focus, especially the things that you’re dealing with on a daily basis...like where the next place you want to stay or the next time you’ll get some money or the next time you want to have some traveling fare.”

**Facilitators**—Despite the aforementioned barriers, participants reported several ways that they might incorporate mindfulness practice into their daily lives. Participants suggested developing a habit of practicing mindfulness at the beginning and/or end of each day. They also noted that they planned to practice mindfulness before bed to help them go to sleep, or in the middle of the night when they had difficulty going back to sleep. Participants noted interest in practicing mindfulness in varied lengths or formats throughout the day. One woman described:

Meditation can be done at any time, for any length of time, or shortness of time. Any place, any time of the day. No one has to know that you’re doing it... You could be sitting on the metro. You could be sitting at a stop sign. It’s not something that you really have to set time aside. You could do it anytime and anywhere... You can do it for two minutes, whatever it takes. Just to calm you down, to get your breathing under control, and get your mind to stop racing.

Participants indicated that they could practice mindfulness in the midst of specific stressful situations. For example, a woman indicated, “If I see some activity going on that upsets me I can just take a few minutes. Just close my eyes and just concentrate on my breathing and just focus.”

## Suggestions for Intervention Development and Implementation

Participants indicated strong interest in receiving mindfulness-based clinical services. A woman said, “I know it would be good here, a place like this, a mental health facility. We could capitalize on something like that.” A man said, “I think it would be a great addition to mental health to have group therapy sessions of people who can come in here and actually be able to go through a series of exercises.” Another man said, “Wow. Where is this class? Sign me up.”

**Describing mindfulness**—After participants had practiced mindfulness, they provided suggestions for describing mindfulness in their own words. Participants often suggested using the term “meditation,” which seemed more familiar to participants than “mindfulness.” However, one woman expressed ambivalence about using the word meditation and offered alternatives:

I would describe it as a state of quietness.... Maybe not meditation, ‘cause that kind of turns people off sometimes.... Well, nowadays, it seems like people are more into it. But say like, relaxation, a feeling of being yourself. Feeling within yourself.

The most common words/phrases suggested by participants included: “relaxation,” “paying attention/staying focused/being aware,” and “breathing exercise/body breathing/deep breathing.” Other suggestions included “learning how to be still for a minute” and “an act of clarity, a moment of peace, a moment of letting go.” Overall, participants seemed to prefer descriptions other than the word “mindfulness.” One woman stated, “The word mindfulness would have to be explained a lot.” However, another woman suggested, “Call it what it is. Mindfulness. That’s what I think.”

**Suggestions for improving the intervention**—Participants provided some practical suggestions for improving the guided mindfulness practice. Some indicated that they would prefer less verbal instruction and more silence. Others suggested that the mindfulness exercises (which were only 5 minutes in this study) be longer. In terms of more general suggestions for MBIs, participants emphasized the need to be sensitive to symptoms of mental illness and might need to adapt the intervention based on specific psychiatric diagnoses. One man noted:

I think that this is something that should be done according to a person’s diagnosis.... If you’re gonna have a group like this, you have to deal with the diagnosis that’s goin’ on with each individual. There are gonna be individuals that’s gonna relate to it, and there’s gonna be individuals that’s gonna go out kickin’ and screamin’, because of their trauma or past experiences with life itself.

Participants also highlighted the need to feel safe and supported when practicing mindfulness. One man described:

For myself, I would have to be supervised until I’m comfortable enough I can do it on my own.... This time around (*referring to the second mindfulness practice of the session*), I’m in my comfort zone, ‘cause I remember where I’m at, I’ve been in this room before, and I was safe. So I think uh, knowin’ that consciously, it allowed me to be receptive of what was goin’ on. But it was good, and I will definitely

recommend it, and for myself, I would still have to be with someone, to protect myself, you know, as well as others.

Both female and male participants noted some discomfort with closing their eyes (and were invited to keep their eyes open). One man suggested that people might feel more comfortable in “very small groups.” Participants emphasized the need to prepare people by letting them know that uncomfortable experiences (e.g., physical pain, psychological distress) might occur. One woman suggested that participants need to “be prepared, ‘cause you don’t know what you’re gonna expect.... Yeah, the pain. I wasn’t expecting that.”

Finally, participants emphasized the need to be aware that not everyone is open to or interested in practicing mindfulness. One woman noted: “You’re definitely going to have folks who aren’t in tune with that... and have negativity about it. So just, awareness, just being aware of that, I think is important to make a note of.... People going to be people.” A man said, “You’re not gonna get the same response from each individual, uh, it may depend on how that person feels when they come through the door.”

## Discussion

This qualitative study sought to gain information about perceptions of and experiences with mindfulness, barriers to practicing mindfulness, and recommendations for tailoring mindfulness interventions among low-income adults seeking mental health services. Overall, this treatment-seeking sample of primarily African American adults indicated a high level of interest in mindfulness, and no important differences in themes were noted for women versus men. Participants perceived that mindfulness practice would have benefits for their mental and physical health. However, some noted uncomfortable experiences (e.g., physical pain and psychological distress) that occurred during mindfulness practice. Participants generally indicated strong interest in practicing mindfulness in their daily lives, and they discussed potential barriers and facilitators to regular practice. Findings offer valuable suggestions for describing mindfulness and adapting mindfulness-based interventions for this population.

### In-Session Experiences with Mindfulness Practice

After practicing mindfulness of the breath and mindful body scan in session, participants described a variety of perceived mental health benefits that fell under six primary themes: 1) Attention/Awareness (e.g., improved ability to focus on present experience); 2) Acceptance (e.g., allowing experiences without judging or trying to change them); 3) Relaxation (e.g., feeling more calm, peaceful); 4) Stress Management (e.g., perceptions that mindfulness would be a useful coping tool in the midst of stressful situations); 5) Anger Management (e.g., reduced anger and/or less aggressive reactions to anger); and 6) Empowerment/Agency (e.g., self-reliance; perception that mindfulness can be practiced on one’s own, without having to rely on others). Interestingly, the first two themes (attention and acceptance) are hypothesized to be two core aspects of mindfulness (Bishop et al. 2004). Consistent with participants’ perceptions in the current study, there is extant evidence that MBIs can improve attention (Chiesa et al. 2011), reduce stress and anxiety (Gotink et al. 2015), and promote healthier anger management (e.g., Amutio et al. 2014). Additional mental health benefits

reported by the participants included perceptions that mindfulness might help them to focus on personal goals/values, build a sense of self-worth, and cope with psychiatric symptoms.

Participants also perceived a number of physical health benefits, which fell into four primary categories: 1) Ameliorating Effects of Stress on Health (e.g., lessening effects of stress on blood pressure or diabetes); 2) Improving Sleep (especially as a strategy to try before bed or when one has difficulty sleeping); 3) Promoting Healthier Behavior (e.g., smoking cessation, healthier eating); and 4) Improving Coping with Pain/Reducing Pain. Although inconclusive at this point, some preliminary research supports the potential utility of MBIs for reducing blood pressure, improving glycemic control, promoting healthier behaviors, and treating insomnia and chronic pain (Loucks et al. 2015; Ong et al. 2014; Veehof et al. 2016).

Notably, participants' experiences with mindfulness were not exclusively positive. The most common uncomfortable experiences were frustration with mind wandering or perceptions that they were not "doing it right." Some participants noted physical and/or emotional pain during the mindfulness practice. For example, participants noticed feeling physical pain, especially during the body scan (as opposed to mindful breathing). Some participants noted distressing thoughts, images, or memories during mindfulness practice, possibly related to past trauma. Although there is much less research in this area, researchers have begun to document distressing experiences with meditation (Rocha 2014). More research is needed to fully understand these types of experiences and whether they are more common for certain populations (e.g., individuals with psychiatric disorders). At present, most research points to benefits of mindfulness meditation for individuals with mental illness (Chiesa and Serretti 2011; Khoury et al. 2013). However, it seems especially important to appropriately prepare participants by informing them that not all experiences with mindfulness are positive (discussed further below).

### **Suggestions for Intervention Development and Implementation**

Based on participants' reported experiences and suggestions, we propose five recommendations for implementing mindfulness-based interventions with low-income adults with mental health concerns (based on the current sample, these recommendations may be most likely to apply in primarily African American populations). First, the terms mindfulness and meditation should be explained and discussed in detail (including open discussion about any preconceived ideas that participants have). More familiar terms like "paying attention," "staying focused," "being aware," or describing "breathing exercises" might be helpful for discussing mindfulness. In addition, comparing and contrasting the broader use of the term "meditation" with "mindfulness meditation" may prevent confusion.

Second, facilitators should clarify that mindfulness is not synonymous with relaxation and that although participants might feel calmer while practicing mindfulness, it is also possible that people will have uncomfortable experiences (e.g., noticing physical pain, uncomfortable thoughts, images or memories). It is important to emphasize that mindfulness is not the same thing as "positive thinking" or "pushing away negative thoughts" so that participants do not have overly positive expectations. Accordingly, facilitators should be sensitive to the fact that symptoms of mental illness (e.g., traumatic images, feelings of sadness, hallucinations) could arise during meditation and offer extra support as needed. For example, facilitators

could regularly check in with participants to see how they are doing, leave the lights on in the room if that is more comfortable, invite them to keep their eyes open if they wish, and avoid pushing participants to try any practice that they are not comfortable with in the moment.

Third, we suggest that facilitators acknowledge barriers to mindfulness practice and work collaboratively with participants to identify if and how they might like to practice mindfulness. Some participants indicated that it would be helpful to develop regular habits to practice mindful breathing or body scan each day in the morning or before bedtime. However, chronic stressors (e.g., related to financial difficulties, unstable housing), lack of free time, and unsafe environments might not be conducive to long bouts of formal meditation. Some participants might prefer briefer meditations or informal practice throughout the day. Facilitators might encourage participants to pause for deep breaths throughout the day (e.g., when at a stop sign, sitting on the bus, or in the midst of a stressful situation, as suggested by our participants).

Fourth, depending on program participants' backgrounds and interests, facilitators might consider incorporating discussion of religion or spirituality. Participants in the current study (most of whom were Christian) often drew connections between mindfulness/meditation and religious/spiritual experiences (e.g., prayer, listening to religious music, focusing on scripture). It is important for facilitators to acknowledge that by teaching mindfulness they are not necessarily teaching a certain religion, but that participants may or may not find that mindfulness practice fits with their own religious or spiritual practices.

Finally, facilitators should consider ways to promote empowerment and agency in the context of teaching mindfulness. Several participants highlighted the fact that mindfulness practice is something that they can do on their own, regardless of the availability of external resources. This could be particularly important for individuals from marginalized backgrounds and lower socioeconomic resources. Practicing mindfulness is not synonymous with resigning oneself to unjust situations like discrimination or poverty, but it might offer adaptive ways of caring for oneself in the midst of difficult life circumstances.

## Limitations

Results apply to a treatment-seeking sample of low-income, primarily African American adults. Thus, the findings may not generalize to higher-SES, non-clinical samples, or members of other racial/ethnic groups. Further, diverse mental health concerns (including symptoms of anxiety, depression, post-traumatic stress, and psychotic disorders) were represented. It is possible that experiences with mindfulness vary among people with different mental health conditions; future research is needed to answer this question. Mindfulness may not be helpful for certain populations, and more research is needed to understand for whom and under what circumstances mindfulness versus other strategies might be more helpful. In addition, participants in this study had varied past experiences with mindfulness (i.e., whereas some had learned mindfulness from a therapist, others had never heard of mindfulness), and more detailed assessment of previous mindfulness practice would be useful in future studies. Finally, several additional important questions cannot be answered by the current study. For example, mindful responding could be beneficial in the



context of specific stressors like racial discrimination and stigma associated with mental health diagnoses, but we did not specifically ask about these experiences.

In conclusion, this treatment-seeking sample of low-SES, primarily African American adults generally described positive experiences with in-session mindfulness practice and perceived that practicing mindfulness would benefit their mental and physical health. Results could be helpful in tailoring mindfulness-based treatment to optimize feasibility and effectiveness for low-SES adults seeking mental health services.

## Acknowledgments

The authors would like to thank staff members of the Catholic Charities of the Archdiocese of Washington (especially Karen Ostlie, Vicki Barnes, and Wilhelmina Swenholt) for facilitating recruitment of focus group participants. We are grateful to the study participants for making this research possible by providing their time, effort, and insightful comments.

### Funding:

This work was supported by funds from The Catholic University of America (CUA) and was conducted while the first author was at CUA. Research reported in this publication was also supported by the National Center for Complementary & Integrative Health of the National Institutes of Health under Award Number K23 AT008442. Dr. Hoover was supported by the National Institute on Drug Abuse under award number K23 DA040933. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

## References

- Amaro H. Implementing mindfulness-based relapse prevention in diverse populations: Challenges and future directions. *Substance Use & Misuse*. 2014; 49(5):612–616. DOI: 10.3109/10826084.2014.856624 [PubMed: 24611858]
- Amaro H, Spear S, Vallejo Z, Conron K, Black DS. Feasibility, acceptability, and preliminary outcomes of a mindfulness-based relapse prevention intervention for culturally-diverse, low-income women in substance use disorder treatment. *Substance Use & Misuse*. 2014; 49(5):547–559. DOI: 10.3109/10826084.2013.852587 [PubMed: 24611850]
- Amutio A, Franco C, de Perez-Fuentes MC, Gazquez JJ, Mercader I. Mindfulness training for reducing anger, anxiety, and depression in fibromyalgia patients. *Frontiers in Psychology*. 2014; 5:1572.doi: 10.3389/fpsyg.2014.01572 [PubMed: 25628591]
- Ayres L, Kavanaugh K, Knafl KA. Within-case and across-case approaches to qualitative data analysis. *Qualitative Health Research*. 2003; 13(6):871–883. [PubMed: 12891720]
- Bernal G. Intervention development and cultural adaptation research with diverse families. *Family Process*. 2006; 45(2):143–151. [PubMed: 16768015]
- Bernal G, Bonilla J, Bellido C. Ecological validity and cultural sensitivity for outcome research: Issues for the cultural adaptation and development of psychosocial treatments with Hispanics. *Journal of Abnormal Child Psychology*. 1995; 23(1):67–82. [PubMed: 7759675]
- Bishop SR, Lau M, Shapiro S, Carlson L, Anderson ND, Carmody J, et al. Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*. 2004; 11:230–241. DOI: 10.1093/clipsy/bph077
- Chiesa A, Calati R, Serretti A. Does mindfulness training improve cognitive abilities? A systematic review of neuropsychological findings. *Clinical Psychology Review*. 2011; 31(3):449–464. DOI: 10.1016/j.cpr.2010.11.003 [PubMed: 21183265]
- Chiesa A, Serretti A. Mindfulness based cognitive therapy for psychiatric disorders: A systematic review and meta-analysis. *Psychiatry Research*. 2011; 187(3):441–453. DOI: 10.1016/j.psychres.2010.08.011 [PubMed: 20846726]

- Chiesa A, Serretti A. Are mindfulness-based interventions effective for substance use disorders? A systematic review of the evidence. *Substance Use & Misuse*. 2014; 49(5):492–512. DOI: 10.3109/10826084.2013.770027 [PubMed: 23461667]
- Corbin, J., Strauss, A. *Basics of qualitative research: Techniques and procedures for developing grounded theory*. 3. Thousand Oaks: Sage Publications, Inc; 2008.
- de Souza IC, de Barros VV, Gomide HP, Miranda TC, de Menezes VP, Kozasa EH, et al. Mindfulness-based interventions for the treatment of smoking: A systematic literature review. *Journal of Alternative and Complementary Medicine*. 2015; 21(3):129–140. DOI: 10.1089/acm.2013.0471 [PubMed: 25710798]
- Dutton MA, Bermudez D, Matas A, Majid H, Myers NL. Mindfulness-based stress reduction for low-income, predominantly African American women with PTSD and a history of intimate partner violence. *Cognitive and Behavioral Practice*. 2013; 20(1):23–32. DOI: 10.1016/j.cbpra.2011.08.003 [PubMed: 24043922]
- Erves JC, Mayo-Gamble TL, Malin-Fair A, Boyer A, Joosten Y, Vaughn YC, et al. Needs, priorities, and recommendations for engaging underrepresented populations in clinical research: A community perspective. *Journal of Community Health*. 2016; doi: 10.1007/s10900-016-0279-2
- Finlay L. Negotiating the swamp: The opportunity and challenge of reflexivity in research practice. *Qualitative Research*. 2002; 2(2):209–230.
- Fuchs C, Lee JK, Roemer L, Orsillo SM. Using mindfulness- and acceptance-based treatments with clients from nondominant cultural and/or marginalized backgrounds: Clinical considerations, meta-analysis findings, and introduction to the special series. *Cognitive and Behavioral Practice*. 2013; 20(1):1–12. [PubMed: 26294894]
- George MC, Wongmek A, Kaku M, Nmashie A, Robinson-Papp J. A mixed-methods pilot study of mindfulness-based stress reduction for HIV-associated chronic pain. *Behavioral Medicine*. 2015; : 1–12. DOI: 10.1080/08964289.2015.1107525
- Gotink RA, Chu P, Busschbach JJ, Benson H, Fricchione GL, Hunink MG. Standardised mindfulness-based interventions in healthcare: An overview of systematic reviews and meta-analyses of RCTs. *PLoS One*. 2015; 10(4):e0124344.doi: 10.1371/journal.pone.0124344 [PubMed: 25881019]
- Gu J, Strauss C, Bond R, Cavanagh K. How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. *Clinical Psychology Review*. 2015; 37:1–12. DOI: 10.1016/j.cpr.2015.01.006 [PubMed: 25689576]
- Kabat-Zinn, J. *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. New York: Delacourt; 1990.
- Kabat-Zinn, J. *Wherever you go, there you are: Mindfulness and meditation in everyday life*. New York: Hyperion; 1994.
- Khoury B, Lecomte T, Fortin G, Masse M, Therien P, Bouchard V, et al. Mindfulness-based therapy: A comprehensive meta-analysis. *Clinical Psychology Review*. 2013; 33(6):763–771. DOI: 10.1016/j.cpr.2013.05.005 [PubMed: 23796855]
- Khoury B, Sharma M, Rush SE, Fournier C. Mindfulness-based stress reduction for healthy individuals: A meta-analysis. *Journal of Psychosomatic Research*. 2015; 78(6):519–528. DOI: 10.1016/j.jpsychores.2015.03.009 [PubMed: 25818837]
- Leyro TM, Zvolensky MJ, Bernstein A. Distress tolerance and psychopathological symptoms and disorders: A review of the empirical literature among adults. *Psychological Bulletin*. 2010; 136(4): 576–600. DOI: 10.1037/a0019712 [PubMed: 20565169]
- Loucks EB, Schuman-Olivier Z, Britton WB, Fresco DM, Desbordes G, Brewer JA, et al. Mindfulness and cardiovascular disease risk: State of the evidence, plausible mechanisms, and theoretical framework. *Current Cardiology Reports*. 2015; 17(12):112.doi: 10.1007/s11886-015-0668-7 [PubMed: 26482755]
- Mantzios M, Wilson JC. Mindfulness, eating behaviours, and obesity: A review and reflection on current findings. *Current Obesity Reports*. 2015; 4(1):141–146. DOI: 10.1007/s13679-014-0131-x [PubMed: 26627097]

- Matthews KA, Gallo LC. Psychological perspectives on pathways linking socioeconomic status and physical health. *Annual Review of Psychology*. 2011; 62:501–530. DOI: 10.1146/annurev.psych.031809.130711
- Miranda J, Bernal G, Lau A, Kohn L, Hwang WC, LaFromboise T. State of the science on psychosocial interventions for ethnic minorities. *Annual Review of Clinical Psychology*. 2005; 1:113–142. DOI: 10.1146/annurev.clinpsy.1.102803.143822
- Myers HF. Ethnicity- and socio-economic status-related stresses in context: An integrative review and conceptual model. *Journal of Behavioral Medicine*. 2009; 32(1):9–19. DOI: 10.1007/s10865-008-9181-4 [PubMed: 18989769]
- Ong JC, Manber R, Segal Z, Xia Y, Shapiro S, Wyatt JK. A randomized controlled trial of mindfulness meditation for chronic insomnia. *Sleep*. 2014; 37(9):1553–1563. DOI: 10.5665/sleep.4010 [PubMed: 25142566]
- Palta P, Page G, Piferi RL, Gill JM, Hayat MJ, Connolly AB, et al. Evaluation of a mindfulness-based intervention program to decrease blood pressure in low-income African-American older adults. *Journal of Urban Health*. 2012; 89(2):308–316. DOI: 10.1007/s11524-011-9654-6 [PubMed: 22302233]
- Rocha, T. [Accessed February 24, 2017] The Dark Knight of the Soul. 2014. <http://www.theatlantic.com/health/archive/2014/06/the-dark-knight-of-the-souls/372766/>
- Roth B, Robbins D. Mindfulness-based stress reduction and health-related quality of life: Findings from a bilingual inner-city patient population. *Psychosomatic Medicine*. 2004; 66(1):113–123. [PubMed: 14747645]
- Ryan GW, Bernard HR. Techniques to identify themes. *Field Methods*. 2003; 15:85–109.
- Scheppers E, van Dongen E, Dekker J, Geertzen J, Dekker J. Potential barriers to the use of health services among ethnic minorities: A review. *Family Practice*. 2006; 23(3):325–348. DOI: 10.1093/fampra/cmi113 [PubMed: 16476700]
- Schubart JR, Wojnar M, Dillard JP, Meczkowski E, Kanaskie ML, Blackall GF, et al. ICU family communication and health care professionals: A qualitative analysis of perspectives. *Intensive and Critical Care Nursing*. 2015; 31(5):315–321. DOI: 10.1016/j.iccn.2015.02.003 [PubMed: 26002515]
- Sobczak LR, West LM. Clinical considerations in using mindfulness- and acceptance-based approaches with diverse populations: Addressing challenges in service delivery in diverse community settings. *Cognitive and Behavioral Practice*. 2013; 20(1):13–22. DOI: 10.1016/j.cbpra.2011.08.005
- Szanton SL, Wenzel J, Connolly AB, Piferi RL. Examining mindfulness-based stress reduction: Perceptions from minority older adults residing in a low-income housing facility. *BMC Complementary and Alternative Medicine*. 2011; 11:44.doi: 10.1186/1472-6882-11-44 [PubMed: 21627807]
- Vallejo Z, Amaro H. Adaptation of mindfulness-based stress reduction program for addiction relapse prevention. *The Humanistic Psychologist*. 2009; 37:192–206.
- Veehof MM, Trompetter HR, Bohlmeijer ET, Schreurs KM. Acceptance- and mindfulness-based interventions for the treatment of chronic pain: A meta-analytic review. *Cognitive Behaviour Therapy*. 2016; 45(1):5–31. DOI: 10.1080/16506073.2015.1098724 [PubMed: 26818413]
- Witkiewitz K, Greenfield BL, Bowen S. Mindfulness-based relapse prevention with racial and ethnic minority women. *Addictive Behaviors*. 2013; 38(12):2821–2824. DOI: 10.1016/j.addbeh.2013.08.018 [PubMed: 24018224]
- Wyatt C, Harper B, Weatherhead S. The experience of group mindfulness-based interventions for individuals with mental health difficulties: A meta-synthesis. *Psychotherapy Research*. 2014; 24:214–228. DOI: 10.1080/10503307.2013.864788 [PubMed: 24313300]