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Feasibility and Acceptability of Mindfulness for Survivors of Homicide and Their Providers

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Abstract

Purpose: This study uses participatory research methods with survivors of homicide and their service providers to explore the feasibility and acceptability of a culturally-adapted mindfulness intervention for stresss reduction and resilience in homicide survivors. *Procedures:* Our mixed methods approach included: (a) previewing a Mindfulness Based Stress Reduction program with providers and Survivors; (b) using their iterative feedback during focus groups to revise the curriculum; and (c) studying the acceptability of the adapted curriculum for Survivors? through focus group and standardized data collection. *Findings:* We learned that providers use mindfulness for self-care and both providers and survivors view the approach for Survivors as promising. Based on attendance, participation and focus group data, the adapted curriculum was both feasible and acceptable. Survivors' reports suggested most experienced improved emotion regulation, feelings of empowerment and better coping. *Conclusions:* Culturally-adapted mindfulness programs may support healing for homicide survivors and possibly other low income people of color with significant trauma backgrounds. Further investigation is needed to rigorously assess outcomes and specific effects, both positive and negative, of mindfulness in this population.

Key words: Mindfulness, homicide survivors, providers, community based participatory research, cultural adaptation, emotion regulation

Introduction[1]

Communities of color in the U.S. have disproportionately and historically been victims of racism and violence. Coverage of violent acts against people of color on the television and the internet are all too often lived and retold by the "Survivors" of the violence. Survivors of homicide -- the surviving family, friends and loved ones of individuals killed -- are often considered co-victims.[1] This paper recounts our efforts to promote coping and healing for homicide survivors and service providers specializing in providing support, counseling and other services to this population through testing the feasibility and acceptability of a low cost mind-body intervention at a community based service provider in Boston.

A recent systematic review of the research of the impact of homicide on survivors or co-victims of homicide found consistent evidence for elevated rates of anxiety, depression, rage, and guilt.[2] The homicide forces survivors to be fearful and lose confidence. It also alters one's worldview.[3] Homicide has widespread negative sequelae touching all facets of survivors' lives.[4] Research is needed to improve our understanding of effective and cost effective interventions to promote psychological resilience and emotion regulation/distress tolerance in individuals exposed to violence. Importantly, given the disproportionate impact of violence on low income communities of color, it is imperative that studies address the cultural acceptability, appropriateness, and impact of these interventions on the mental, emotional, physical and social health of low income

[1] Abbreviations used in this article include: MBSR – Mindfulness Based Stress Reduction; CBPR – Community Based Participatory Research; HIV – Human Immunodeficiency Virus; and NIH – National Institute of Health.

communities of color. African Americans and Latinos who have been or are currently exposed to stress and trauma are in need of culturally appropriate interventions including mindfulness as well as other forms of integrative and complementary medicine.

Among individuals who have experienced gun violence, what little evidence there is suggests that mindfulness-based programs may be particularly helpful due to their strength-based approach to drawing on inner resources for promoting healing. Mindfulness is not about solving or avoiding problems, but rather supports a turning toward difficult experiences and staying grounded in the present. It is an inherent capacity that is cultivated and strengthened by mental training through the mindfulness practices. Through this, individuals can learn to be less reactive to the pain, are able to regulate emotions better, and are more confident in their ability to cope despite the circumstance.[5] Research shows that mindfulness cultivates resilience in trauma victims who typically develop and maintain Post Traumatic Stress Disorder (PTSD) through experiential avoidance whereas central component of mindfulness is acceptance and turning toward experience even when it is unpleasant.[5]

Mindfulness is also recognized as an evidence-based practice that can improve physical and emotional health and well-being.[6] Practicing mindfulness, which includes meditation, breathing techniques, and self-reflection can help individuals decrease stress, anxiety and emotional attachment to negative events.[7] Our rationale for the application of mindfulness training to promote psychological resilience following exposure to gun violence is based on the notion that mindfulness promotes acceptance of difficult

thoughts and feelings, reduces rumination, and improves psychological function, cognitive flexibility, and coping processes.[8] Mindfulness practices also foster self-regulation and well-being through increased awareness, healthy behaviors, and stress management.[9] Cross-sectional and longitudinal and studies of trauma-exposed adults suggest that mindfulness is associated with lower levels of psychopathology including fewer post-traumatic stress and depressive symptoms, and alcohol problems. [10]

However, the evidence base for mindfulness interventions has scarcely addressed its acceptability and cultural relevance for underserved vulnerable populations such as low-income communities of color, and no previous studies have addressed these questions for homicide survivors.[11] Previous attempts to culturally adapt the clinical intervention Mindfulness Based Stress Reduction (MBSR) for diverse populations have met with mixed success. In a small uncontrolled study of MBSR for HIV-infected African American youth recruited from an urban pediatric clinic, Sibinga and colleagues (2011) adapted MBSR to address logistical challenges (transportation, class duration) and language barriers (simplifying and concretizing the language used to describe class content and activities).[12] Despite these modifications, less than 50% of participants of those who consented attended 5 or more of the 8 classes and were considered program completers, although 80% of those who attended at least one session attended 5 or more of the sessions. Nevertheless, participants reported improvements including reductions in hostility, emotional discomfort, and general discomfort, and improved strategies for conflict avoidance. In a follow-up randomized controlled trial with African-American youths recruited from a large urban primary care clinic, 43 out 130 participants who

consented attended at least one session and 35 completed 5 or more sessions. Although no significant differences in survey outcomes were found for MBSR compared to an active control condition, qualitative data from the youths receiving MBSR reported increased calm, conflict avoidance, self-awareness, and self-regulation.[13] When these investigators conducted a RCT of a school-based MBSR program for predominantly low income African-American adolescents, participation and completion were much higher. Compared to participants in the active control intervention, the MBSR participants had improvement in several measures of psychological functioning including posttraumatic symptoms. An initial attempt to implement MBSR for African-American and Latina women participating in a substance abuse treatment program met with a negative response.[14] For acceptability, the approach was modified to a relapse prevention focus with adaptations including: (1) addressing literacy levels; (2) shortened practices; and (3) reducing the risk of triggering trauma. Ultimately, satisfaction with this modified intervention was high, but participation was low (36%)

Thus, the need for further study of adaptations to enhance cultural relevance and acceptability of mindfulness training has been emphasized by Amaro (2014). [15] In a qualitative study that explored the cultural relevance of mindfulness meditation training for African Americans adults, participants who had experience with mindfulness meditation offered several suggestions to enhance cultural relevance including addressing connections to religious beliefs and cultural practices, reading material from African American writers, and African American instructors.[16] In our study, we applied several of these suggestions as well as principles of Community-Based Participatory Research

(CBPR) where the convening community of the project participates fully and equitably in all aspects of the research process. We used CBPR methods to conduct formative research on identifying acceptable and potentially sustainable strategies for translating the empirical evidence base for mindfulness to promote coping and healing for homicide survivors served by a community-based organization in Boston. Ground-up community-based approaches to cultural adaptation can provide invaluable information by confirming theory-related principles, generating ideas that more theory-driven approaches leave out, or by providing more specificity in the adaptations or examples offered. Community-based formative approaches to adaptation can also serve as a powerful tool for cultural understanding because they involve consumers (programming staff and clients), as well as community stakeholders and collaborators.[17]

Evidence-based approaches have recommended iterative processes for developing culturally adapted interventions including: (a) prioritizing problems and relevant communities; (b) information gathering; (c) preliminary adaptation design; (d) preliminary testing of the adapted treatment; and (e) adaptation refinement.[18,19] Recent data have found that utilizing these evidence based approaches results in culturally adapted behavioral interventions that are effective for the populations for whom they serve.[20] Cultural validity promotes the idea that treatment must be culturally modified and appropriate to enhance treatment response, engagement, and availability for diverse populations.[21]

For this study, we partnered with the Louis D. Brown Peace Institute, a black, Latina, immigrant owned and operated community based organization which serves the majority of the families that are affected by homicide in Boston. The Peace Institute offers a continuum of support from the immediate aftermath of a homicide through the often times lengthy criminal justice system processing of the event. It also provides crisis response training and networking for front-line service providers in area hospitals and other organizations as a way to ease the psychological stress of their jobs and promote more equitable, consistent, and compassionate services to families impacted by violence. The Peace Institute's leadership immediately embraced the idea of mindfulness to complement their work in support groups with family members and service providers including their staff. We had a three-pronged rationale for including the staff of the Peace Institute: (1) to support the integration of mindfulness into the organization; (2) to have the staff experience mindfulness in the same way as the providers whom they train and support as well as the survivors; and (3) to prepare them to support the survivors going forward.

Our goals were to create capacity at the Peace Institute by offering a sustainable resource in the form of mindfulness practices and activities for utilization in their workshops for first responders and family members, and to improve public health of individuals and communities impacted by homicide. This approach is unique as it: (a) is fully participatory including not only survivors/clients, but also staff and other providers in all phases of the study; (b) features our use of formative methods; (c) and highlights the

importance of our ability to recruit a person of color from the community with the expertise to lead the mindfulness trainings.

Methods

The Peace Institute staff reached out to survivor families and providers specializing in support and counseling for homicide survivors from other community organizations to publicize the study and invite participation. Requirements for participation were being a survivor or working with survivors of gun homicide. age greater than 18, and ability to communicate in English. Participants in the focus groups signed informed consent, as did participants in the pilot program. Survivors who participated in each phase of the study were provided with compensation for each session, and refreshments were provided prior to the focus groups and at each class of the pilot program. The study was carried out in accordance with the Code of Ethics of the World Medical Association and the Declaration of Helsinki and approved by the Institutional Review Boards of the University of Massachusetts Boston and the University of Massachusetts Medical School.

Phase I: Introduction of Mindfulness Practices – The goal of this phase was to provide sample groups (survivors, staff, providers) exposure to the basic concepts and practices of MBSR in order to: (a) obtain preliminary data on acceptability and interest; and (b) to equip them to engage in Phase 2. Three introductory mindfulness workshops were offered as part of the Peace Institute's Survivor Leadership Academy, an educational and empowerment series aimed at supporting survivors of homicide. Another set of

workshops were offered separately to providers as part of the Peace Institute's Serving Survivors of Homicide Victims Providers Network breakfasts. Providers from across the city included emergency room staff, grief counselors, and city employees with expertise in psychological first aid who may use mindfulness for self-care and/or client services. Investigators worked closely with staff in planning the workshops to maximize participation by clients and other providers. For example, clients were assured that trusted staff members would be present throughout the workshops, transportation was offered, and childcare was provided. Our mindfulness instructor (B.J.) is a person of color who lives in one of the Boston communities most affected by homicide, is a qualified MBSR teacher with five years experience teaching MBSR who received her training through the Center for Mindfulness at UMass Medical School, and has taught more than a dozen MBSR classes to inner city to people of color. She basically taught the major components of the first three classes of the standard MBSR curriculum including the eating/raisin exercise, the body scan, the awareness of breath meditation, mindful movement (gentle yoga), and the home practice/homework assignments. These one-hour workshops also provided an introduction to the rationale and structure of a MBSR program, its application for psychological well-being, and its evidence base. Workshops included: (1) didactic material related to mindfulness, meditation, yoga, and the mind–body connection; (2) experiential practice of mindfulness meditation; and (3) a question and answer period. Participants were also given home practice/homework assignments, a yoga mat for home practice, and an MP3 player with pre-recorded guided meditation practices, perception exercises (9-dots), and the pleasant events calendar. Participants were encouraged to do both formal and informal practices every day. At the conclusion

of the workshops, the research team conducted focus groups and surveys with the survivors, providers, and staff to assess the impact and areas for adaption of the MBSR curriculum.

Phase 2: Cultural Adaptation - Three survivors, two staff, one provider from another organization serving homicide survivors, all of whom had participated in the workshops, joined with the investigators and the community mindfulness instructor as research team members to adapt the MBSR curriculum. A series of five meetings were held that included investigators, community research members, and the community mindfulness instructor. The team reviewed data and themes derived from the focus groups; the structure, language, content and home practice assignments in the MBSR curriculum; barriers to practice including family commitments and technology; and came to agreement about a culturally-competent modification of the curriculum. Practices not provided in the standard MBSR curriculum were suggested by the mindfulness instructor based on her previous experience in teaching mindfulness classes for inner city populations with significant trauma. These included the S.T.O.P. practice and acupressure and self-massage for self-care. The widely used S.T.O.P. practice was added to give participants a "mini practice" to use when they encounter some difficulty – Stop what you're doing, step out of auto-pilot; Take a breath mindfully; Observe what is happening in thoughts, feelings, sensations; Proceed with awareness and kindness. In addition, based on the input of the instructor from her experience with traumatized participants, the Loving-Kindness Meditation usually taught as part of the all-day retreat in the standard MBSR curriculum, was included in Session 5 where the theme is the role of mindfulness in choosing response vs. reaction to stress and

difficult emotion. Based on this input from survivors, providers, and staff, the adapted mindfulness curriculum was developed for the pilot phase (see full Adapted Mindfulness Curriculum, Appendix A).

Phase 3: Pilot Program - Following an orientation, additional survivors who had not participated in the workshops were recruited to participate in pilot testing of the adapted Mindfulness curriculum (n= 15 women). The group orientation included an introduction to the program, discussion of confidentiality, brief practices and reflection on practices, and brief individual interviews.

As with the standard MBSR program, the adapted curriculum consisted of 8 classes and an all-day retreat in addition to the orientation, and consisted of didactic material, experiential practice, and mindful inquiry. The themes were also similar (see appendix for further details): mindful awareness; perceptions; being present; coping with stress; reacting/responding; interpersonal mindfulness; mindfulness in daily life; and compassionate self-care (see Appendix A).

Adaptations based on input from the community research participants in Phase 2 (see Results for more details) included (a) providing a meal and half-hour settling in period prior to each class to give participants an opportunity to socialize; (b) shortening classes to 1 ½ hours from the standard 2 ½ hours, necessitating shortening of the practices and discussions, (c) providing transportation vouchers and childcare , (d) providing MP3 players with prerecorded guidance and a yoga mat for home practice, and (e) having staff

members of the Peace Institute present in each class.

In relationship to the home practices/homework, our review of the literature shows that about half of the studies show amount of homework/practice mediates outcomes and half the studies suggest that home practice does not impact outcomes.[26,27] We intentionally did not ask participants to complete homework logs to avoid making them feel more anxious if the practices elicited that response or failing to complete them resulted in the same. Homework logs are not used in clinical programs partly for this reason. Home practices are often used in research studies on efficacy, but we had no hypotheses about such a mediator effect.

We defined completers as those who attended 5 of the 9 sessions, consistent with definitions in many studies of MBSR.[28,29,30,31]

Following the pilot a focus group was held with the participants. All transcribed focus group notes were reviewed using the "grounded theory" approach, reviewing the data for saturated themes.[22] In addition, participants were asked to complete the Abbreviated PTSD Checklist Civilian Version (PCL-C)[22] at baseline and the Trait Anger subscale of the State-Trait Anger Expression Inventory (STAXI-II)[24] at baseline and at completion of the 8 sessions and day-long retreat. The PCL-C has been validated for diverse populations and was chosen to reduce participant burden since we're only collecting preliminary outcome data.

Results

Phase 1: Acceptability and Interest with Survivors and Providers

Survivors (N=15):

Survivors who participated in the introductory workshops, all female, described "learning to breathe" and "catch themselves when their mind wanders and so they have to catch it and focus on breathing because they can only do one thing at once." All said that the practices made them feel better, at least temporarily, and they uniformly enjoyed the exercises, from mindful eating to yoga, and described using the tools they learned in their daily lives.

> *During the past two weeks all I have told myself is to breathe. Even out loud when needed though people looked at me like I was crazy, but I was able to do it.*

A theme mentioned by all participants was spirituality. Several said that mindfulness felt familiar because they had practiced prayer before. One woman said that she thought about God while meditation guidance was provided. The instructor emphasized that mindfulness was compatible with any religion and was not intended to be a replacement. Most participants found it difficult to do the home practices citing busy lives and competing priorities. But all said they found ways to use the practices informally, most commonly by focusing on breathing to calm down when feeling stressed, angry or frustrated. Most said that while they liked the movement and yoga practices in class they did not practice at home. Several suggested a buddy system may be helpful for keeping up with home practice. They also appreciated the chance to socialize during the meal provided before each workshop. Interestingly, several volunteered that they found the

workshops more helpful than the therapy they received after their loved one's death as they were more inclusive and self-directed and less abrasive. All the survivors responded they were willing to participate in a longer course of the Mindfulness curriculum.

Service Providers (N=9):

Half of the providers reported that they used mindfulness for "self-care" due to their stressful occupations, through meditation, yoga, mindful eating, or working out at the gym. Providers also reported that they used mindfulness in their work with homicide survivors. As they describe:

> *It brings a person into a different stage of calm, takes them out of trauma mode and lets them decompress.*

While the majority of providers stated they had an interest in mindfulness as an evidence based practice, they were hesitant to agree to taking a longer, eight week training course due to *time constraints* and already being overwhelmed with their work. Nevertheless, they believe that mindfulness is a good alternative to clinical care, which can at times have the potential to re-traumatize survivors. Instead, mindfulness is a complementary approach to survivors of homicide that might be more effective than usual services

The Peace Institute Staff (N=4):

The Peace Institute staff believe providers do not attend to their self-care enough: "they see themselves as experts and don't feel like they need anything." They believe that all

providers, including themselves, *should* practice mindfulness in some way shape or form whether it is breathing, general self-awareness of their bodies, minds, emotions, and triggers. Here again, most providers including the Peace Institute staff are engaged in some kind of self-care though they were not framing it as "mindfulness."

> *I learned to take care of me, to be still, to not take stuff home, unplug, when we unplug we are not in control – this is an awareness providers need to have. If you find this hard to do, you cannot expect clients to do it.*

In their role as a convener of survivors and providers, the Peace Institute staff views mindfulness as an essential part of their tool kit to approaching trauma among survivors and providers alike.

Phase 2: Participatory Based Cultural Adaptation

Based on the participatory method described above, the following adaptations to the MBSR curriculum were agreed to by the team:

Logistics and structure: A variety of adaptations to the 8-week format were considered, including holding a 1-day or weekend retreat at a remote location, outreach to male survivors to invite their participation, and adding a focus on promoting healing in the family and community. In the end, members felt that the traditional format of 8 weekly classes and a 1-day retreat for women was best, especially since most of the evidence for the effectiveness of mindfulness is based on this format. Members felt that the program

was equally needed by fathers and sons, but felt mixed gender programming would interfere with healing for the women. Also, members agreed that shortening the classes and starting with a shared meal were important. The team decided on 2-hour classes that included opportunity for socializing and a check-in during the meal were important. The check-in included opportunities to acknowledge birthdays or anniversaries honoring the family member lost to homicide, and presentation of the theme and topics for class by the mindfulness instructor. Flexibility was also considered important so that survivors' needs could be addressed, weaving in MBSR themes and supporting discussions around memories, grief and anger when needed. Teaching of formal practices could be shortened or combined to allow time for these additional components. Staff and survivor members emphasized the need for the 1-day retreat for self-care building on the practices learned earlier in the classes. All agreed that providing transportation vouchers, yoga mats, and MP3 players with recorded guided meditations were important resources to support participants' involvement. Finally, survivors emphasized the significance of the Peace Institute hosting the program and having trusted staff present during the classes. They felt this provided an environment where they felt safe and able to express themselves.

Themes and content: Team members felt that all of the themes in the MBSR curriculum should be retained, but should be supplemented with the following additional themes relevant to survivors: healing from trauma, dealing with anger, and promoting healing in the family and community. In addition, staff recommended distributing the multicultural guidelines in the first class. It was decided that these additional themes would be woven into the curriculum throughout, rather than having them stand out as separate topics. For

example, dealing with anger was introduced in Class 3 as part of the discussion of the Unpleasant Experiences Calendar exercise, and again in Classes 4 and 5 in discussions of reactivity to stress.

Language: Some words used in mindfulness teaching were unfamiliar, e.g. embody. Members felt that this problem could be addressed by having the teacher offer more than one explanation of unfamiliar concepts, depending on how the group responds, and by offering time for questions.

Practices: The group acknowledged the trauma-sensitive approach to movement practice. Several felt the loving kindness meditation should be introduced early in the program as one of the early formal meditation practices rather than waiting for the all-day retreat, alluding to the healing effect of this practice for people suffering from trauma.

Home practice assignments: Despite the fact that workshop participants found it difficult to do the home practices between class, the team felt that it was important to encourage future participants to do as much of the assigned practices as possible as, "the more you put in the more you get out."

Phase 3: Pilot of 8-week adapted curriculum for survivors and staff

As Table 1 shows, fifteen (N=15) women were recruited through the Peace Institute to participate in the 8-week MBSR curriculum. These women lost a child or brother to homicide. More than half of the women (N=8) were between the ages of 25 and 45, the

remainder were older. Eight (8) were single, 3 were widowed, 2 were married, and 2 more were divorced. Ten (10) reported having between 1 to 9 children and 5 reported no children. Thirteen (13) were employed, 5 reportedly in human services and advocacy work including program coordination for delinquent youth, 1 was an accountant and another a beautician. Eight (8) were black (2 were cape Verdean and 3 were Haitian), 5 were Latina, while 3 reported being more than one race. Five (5) had a high school diploma, 5 completed technical school or college, and 5 had a professional or graduate degree. Thirteen (13) reported being religious. A third or 5 of the participants scored positive for PTSD on the PCL-C checklist with almost all participants reporting concentration difficulties and feeling upset with reminders about stressful past experiences.

Feasibility and Acceptability: In terms of recruitment and class attendance survivors were generally enthusiastic about the program. We did not have difficulty recruiting participants. Of the 15 recruited, 10 (67%) attended 5 or more classes. Two dropped out: one due to family circumstances, and the other decided after two classes that it "just wasn't for me…not my thing."

Qualitative data from the post-program focus group were used to evaluate participants' experience. The women gave a variety of reasons for participating, including interest in the techniques and yoga, and "taking time out for themselves." One participant said she wanted to, "learn how to calm down so as not to feed into the "angry black woman" stereotype.

Overall, impressions were favorable, with statements including “life changing,” “leading to changes in my everyday life,” and “helpful, inspirational.” Typical expressions of feeling empowered and believing they now had the “tools to cope” with stress included: “My mind used to be a hamster on a wheel but now I have organized thoughts,”; “I learned it’s ok to feel what I’m feeling”; and “Helps you see a whole different world, really helps you know life and your surroundings. It can be scary but in a good way.”

Although some were surprised given the group’s composition, all participants were glad that the program was not “about grief”

> *It helped me to just be there with other mothers with the same type of trauma, it was peaceful... The entire experience was rewarding and helpful.*

That’s not to say the classes were not without grieving and tears. There was some sharing of their stories about loss and participants would sometimes cry when reminded of why they were there. The instructor would pause to offer support, and with their permission then move on. All agreed that since the class finished they had continued using what they learned and will continue to. All expressed interest in taking more classes.

Specific themes: Numerous comments related to the impact of the program on the processing of emotions. This group of women expressed difficulty managing feelings of anger and frustration.

I couldn't have a conversation with a person of authority before, but now I could It helped me change my tone, now and I am able to think through what I am going to say and communicate.

This course taught me how to have more self-control. I am less irritated and lash out way less than before.

The women also described heightened anxiety typical of the chronic trauma caused by the homicide of a loved one. One participant stated that the practices "helped with anxiety and getting through big days," and another stated that the homework practices helped with her anxiety. On the other hand, a couple of participants felt the program made them more aware of their anxiety, "It made me more aware of just how anxious I am and made me anxious about that." It is for participants such as these that the cultural adaptation is necessary.

Specific practices: Of the formal meditation practices taught in class and assigned as homework, all of the participants liked the breath meditation, mindful movement (gentle yoga), and walking meditation practices. Some were skeptical of the yoga: "Yoga isn't that the thing skinny white women do?" Yet ultimately, they all appreciated learning more about yoga, which was most often referenced as a sustainable practice. And some described how they incorporated yoga into their lives: One woman described the positive self-talk she used when she became stressed to refocus, "Let's do a little bit of yoga

now," and another described practicing with her granddaughter in her care, "I could practice while taking care of her."

Despite input from the community research team into the adapted curriculum, some of the women in the pilot had difficulty with the body scan exercise. They suggested that it not be done lying down as being in this position focusing attention on body parts can retrigger trauma.

> *I did not like laying down to do the body scan, reading the parts of the body, made me focus on where he was shot, and I don't want to relive that. I had to learn to have a clear mind and to not focus on lying down.*

Several statements indicated that participants especially liked using mindfulness when eating, walking, and throughout the day (see Appendix A for details).

Language: As with the introductory workshops, feedback from participants in the 8-week class indicated little difficulty with language so long as the instructor provided clarification of key concepts. The only term that was problematic "torso," which was used in the body scan guidance:

> *…don't use the word "torso," I only heard that word one other place and it was when he was shot.*

On the other hand, the participants, "Loved the word mindfulness," stating, "to be aware is to be alive."

It lets you get to know life and your surroundings and it's scary but in a good way to be mindful.

Home practice assignments: Although some stated that home practice assignments added stress to their busy lives – "You have to keep practicing and that is hard to get it in, too much going on*"* – others liked that they had the opportunity to practice outside of class, and one woman stated that the practices helped with going to sleep. The MP3 players with the meditation recordings eliminated the technological barriers to home practice for the participants though family obligations and busy lives remained.

Retreat: Overall, response to the day of silent practice was positive. While the participants "hated not talking," they all agreed that sitting in silence "locked in" the message about being aware of your breath and feelings. The retreat brought to the fore an "awareness of using techniques" including "if your mind wanders, embrace it, come back to it." Post retreat one participant said that it was "not that hard to listen to myself anymore."

Impact: To further assess the impact of the intervention, we compared pre-post differences in scores on self-report measures of trait anger. Although the women had varying lengths of time since their loss (less than a year to more than 12 years), the majority shared similar feelings at baseline reporting elevated rates of anger, with 80% describing themselves as "quick tempered" (N=12) and 60% describing themselves as

getting “angry by others mistakes" (N=9). Underlining this “anger” are intonations of humiliation and shame apparent in reports of “frustration of not getting recognized for good work” (N=10, 67%), “I feel infuriated when I do a good job and get a poor evaluation” (N=8 or 53%), and feeling “furious when I am criticized in front of others" (N=11 or 73%).

Table 1: Demographics Baseline Anger Frequencies from the STAXI-2

Demographics	**Frequency/Percent**	
Age		
25-45	53% (8)	
46+	47% (7)	
Marital Status		
Single	53% (8)	
Widow	20% (3)	
Divorced	13% (2)	
Children		
Yes	67% (10)	
No	33% (5)	
Employed		
Yes	87% (13)	
No	13% (2)	
Race Ethnicity		
Black	53% (8)	
Latina	33% (5)	
Multi-raced	20% (3)	
Education		
High School	33% (5)	
Tech degree/College	33% (5)	
Grad/Prof degree	33% (5)	
Religious		
Yes	87% (13)	
No	13% (2)	
Scored Positive for PTSD		
PCL-R	33% (5)	
STAXI 2-Frequencies	**Baseline, Pre (N=15)**	**Post (N=9)**
I am quick tempered	80% (12)	67% (6)
I have a fiery temper	47% (7)	67% (6)
I am a hotheaded person	47% (7)	33% (3)
I get angry when I am slowed by others mistakes	60% (9)	78% (7)

I feel annoyed when I am not given recognition for doing good work	67% (10)	67% (6)
I fly off the handle	27% (4)	33% (3)
When I get mad I say nasty things	27% (4)	89% (8)
It makes me furious when I am criticized by others	73% (11)	44% (4)
When I get frustrated I feel like hitting someone	20% (3)	11% (1)
I feel infuriated when I do a good job and get a poor evaluation	53% (8)	56% (5)

* Frequencies combine the responses of Sometimes, Often, and Almost Always discarding Almost Never

In addition to demographics, Table 1 examines anger issues at baseline of the pilot and again after the 8 week program. While self-reports of being quick tempered declined 13 percentage points, reports of being aware of having a "fiery temper" and being angered by "others mistakes" increased. Increased insights into the causes of anger including being "criticized by others" are essential to self-control. The findings in Table 1 show increased self-control and insight as well as some mastery over anger. Taken as a whole, these findings suggest increased emotional regulation and insight on the part of the participants as related to an awareness of expressions of anger, a necessary precursor for greater emotion regulation.

Discussion

This is the first study to examine the cultural relevance of a mindfulness-based intervention for survivors of homicide who are people of color. Overall, findings suggest that our culturally-adapted program is both feasible and acceptable, with 67% of

survivors considered completers of the adapted 8-week curriculum. Additional evidence of feasibility included the positive response to recruitment efforts and the participants' responses to the 8-week program. Participants eagerly embraced the practices including various forms of meditation and yoga, in addition to group participation in the curriculum. The majority of participants valued the opportunity and offered a fresh set of perspectives on how to further modify the curriculum for diverse and vulnerable populations with trauma backgrounds. For example, they felt booster sessions would help participants sustain what they had learned and also create a support network to help get through "big days," such as the anniversary of the homicide or the birthday of the lost loved one. Other suggestions included: (1) allowing more time for participants to get to know each other; (2) a check-in "before they leave each session to make sure everyone is ok, even just time to sit in silence with an issue;" and (3) soft, calming music in the background while meditating.

In terms of challenges and barriers, one challenge all participants agreed on was doing the formal practices at home on a regular basis. All said they had used at least some of the practices informally at various times, but none were able to practice daily. It is not unusual in any MBSR class for participants to have difficulty in the first few weeks, and for this reason the challenge of establishing a regular practice is an important focus of group discussion in these classes. Similar findings with respect to the challenges of practice assignments have been reported in other studies of mindfulness offered in community settings.[12,14,24] It is possible that with more home practice participants would have made greater gains, although we note that a 2009 review of more than 90 empirical

studies of mindfulness based interventions found that only 24 had examined the association between the amount of home practice/homework and subsequent outcomes, and only 13 had found at least partial evidence of a positive association.[26] Similarly, a review by Crane et al. (2014) of mindfulness based cognitive therapies found no relationship between amount of home practice/homework and outcomes.[28] Thus, we identified home practice as a possible barrier to be discussed as we further adapt and refine MBSR for diverse populations.

Another challenge we encountered was the expressions of anger which sometimes derailed the classes briefly. The participants' focus was less about their loved one's death than about the attitude of police and "the system" toward investigating their murder, and stories in the media about police killings of young men of color. This was anticipated based on input from community research participants during the curriculum adaptation phase of the project. For this reason anger and trauma were specifically discussed in Class 3 during the didactic presentation on unpleasant emotions and again in Class 4 in the section on negative and positive ways of coping with negative emotions. The instructor validated participants' expressions of anger and attempted to help them be with it while at the same time being less burdened by it. Given what participants told us about the toxicity of anger for them, their families and their communities, an important challenge of future work will be to explore the value of mindfulness for mitigating the adverse physical and emotional effects of survivors' anger stemming from the homicide.

Although the study had several strengths including our community-based participatory

approach and an iterative process to culturally adapt the mindfulness intervention, the study also had several limitations. The small size of our sample limits generalizability of the findings and the reliability of our quantitative data. A related limitation is the lack of a comparison group. Nevertheless, our goal was to develop a new intervention for pilot testing, and our design was appropriate for that goal. The next logical step is a study with larger sample size and comparative groups assessing the impact of mindfulness.

Our findings from adapting and piloting the adapted curriculum for women impacted by homicide, all of whom were Black or Latina, support the relevance, acceptability and feasibility of mindfulness for this population and service organization. Our findings contrast sharply with the largely negative response by African American and Latina women to the standard MBSR program in an earlier study.[14,15] Adaptations of the MBSR curriculum for diverse populations like the one described here and by others[12,13,23] show promise for addressing disparities in the use of mindfulness practices by people of low education levels and blacks and Latinos.[25]The community-based participatory research approach employed in the current study was conducive to understanding the distinctive cultural factors for a mindfulness-based intervention with African American and Latina women who have lost loved ones to violence. We believe this may account for the program's acceptability and engagement. The iterative feedback from survivors, providers and staff was essential to the adaptation process. Given the feedback from providers and the survivors, the Peace Institute will continue to infuse mindfulness into their work. They will also hold booster sessions for survivors and providers. Our goals moving forward are to replicate the same adaption process and curriculum

implementation for male survivors of homicide, and to conduct a randomized clinical trial to examine efficacy of the adapted curriculum for homicide survivors.

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APPENDIX A

Adapted Curriculum (see attached)