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A Multi-Method Exploration of Mindfulness as a Coping Tool: Perspectives from Trauma-exposed, Unhoused Women Residing at a Drug Treatment Facility

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Abstract

This multi-method study examined perspectives on mindfulness and coping strategies used by trauma-exposed women experiencing homelessness (WEH), residing in a state-funded residential drug treatment site in Southern California (United States). Questionnaires and in-depth focus group interviews were utilized to examine traumatic experiences over the lifespan, probable-posttraumatic stress disorder (PTSD), and coping strategies. Mindfulness was explored as a potential way to improve coping; potential benefits and challenges associated with implementing a mindfulness-based intervention (MBI) with trauma-exposed WEH were also investigated. A Community Advisory Board (CAB) was formed to identify key issues experienced by WEH and to develop a semi structured interview guide (SSIG). Using the SSIG, women participated in one of four focus groups (total N=28; n=7 per group). Quantitative data on demographic indicators, probable-PTSD, and trauma exposure were collected. Over 90% of women met criteria for probable-PTSD; trauma exposure was exceedingly high; most women had experienced multiple traumas throughout their lives. Four main themes emerged from qualitative analyses, which drew from Grounded Theory and used *open*, *selective*, and *axial* coding: 1) ways of coping with trauma; 2) perspectives on mindfulness; 3) prior experiences with mindfulness; and 4) challenges for conducting a mindfulness program. Overall, WEH used a variety of coping techniques to deal with their trauma, had some familiarity with mindfulness, and were optimistic an MBI would be helpful, despite identifying several challenges to implementation. MBIs may be helpful adjuncts to traditional care for trauma-exposed, WEH, recovering from substance use disorder. Population-specific considerations may improve implementation and participation.

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Introduction

Women experiencing homelessness (WEH) are at exceptionally high risk of trauma exposure, posttraumatic stress disorder (PTSD; American et al., 2016), and co-occurring substance use disorder (SUD) (Guillén et al., 2020). Compared to the general population, among WEH, the prevalence of alcohol and drug use disorder is four and twelve times higher, respectively (Upshur et al., 2017). More generally, approximately 40% of those with SUD meet criteria for PTSD (Roberts et al., 2015). These comorbidities can be reinforcing: people may use substances as a means to "forget" a trauma (Mills, 2009). Thus these comorbidities work in tandem to create additional risk factors for new traumas to occur (Duncan et al., 2019). Trauma may trigger substance use, and substance use may increase women's exposure to traumatic experiences. Therefore, the two issues are often mutually reinforcing, leading to a cycle of trauma exposure, PTSD, SUD, and high-risk situations that expose women to more trauma, exacerbating symptoms and resulting disparities.

Trauma and adverse childhood experiences (ACEs), commonly experienced in unhoused persons, are also associated with greater risk of homelessness (Duncan et al., 2019), chronic PTSD, and more severe SUD (Guillén et al., 2020), leading to social and occupational impairments that cause or maintain homelessness (Duncan et al., 2019). In prior assessments, 69% of WEH reported abuse as a child and 75% reported victimization as adults (Tsai et al., 2015); nearly 30% of unhoused individuals meet criteria for PTSD (Ayano et al., 2020). Moreover, the experience of homelessness itself is a traumatic experience (Phipps et al., 2019). WEH face a unique set of challenges (Phipps et al., 2019), which often include caring for children, avoiding current or former abuse perpetrators, and trying to maintain temporary or affordable permanent housing (Fonfield-Ayinla, 2009). These challenges are reinforcing: for example, lack of childcare and/or regulations at temporary shelters can make interviewing for employment difficult for a women fleeing domestic abuse (Gültekin et al., 2014). Indeed, a large percentage of unhoused mothers have a history of social stressors and emotional and physical abuse, including a cycle of familial violence; they describe substance use as a way to cope with traumatic events, PTSD symptoms, and homelessness (Gültekin et al., 2014). Importantly, becoming housed does not always address problems including social integration, trauma, or SUD, which can in turn lead to future homelessness (Phipps et al., 2019).

Given such patterns and statistics, it is imperative WEH, particularly those with trauma exposure and associated PTSD and SUD, find effective coping skills that promote SUD recovery, help regulate PTSD symptomatology, and provide tools and resources for effective and sustained reintegration (e.g., obtaining employment and stable housing). Coping is defined as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the

person (pg. 141)" (Lazarus & Folkman, 1984). The Comprehensive Health Seeking and Coping Paradigm (CHSCP) provides a framework to alter, enhance and promote effective coping and service seeking for those in need (Nyamathi, 1989; Nyamathi et al., 2021). In the CHSCP, coping is viewed as a transactional process, where social ecological factors (e.g., situational and personal factors, resources) influence an individual's cognitive appraisal, health goals, and in turn both immediate and long-term outcomes (Nyamathi, 1989). This improved coping is an essential component of reducing traumatic experiences such as violence (Boxer & Sloan-Power, 2013) that maintain PTSD symptoms and SUD. Understanding these processes, particularly from the perspective of the individuals seeking to improve their coping skills and adapt to challenging circumstances (e.g., PTSD, homelessness, SUD), is critical to supporting lasting recovery and behavior change. Such information could help inform the design and administration of community-based services and interventions that target the development of improved coping skills, helping WEH to recover from PTSD, SUD, and homelessness.

A recent meta-synthesis of qualitative research on coping in persons experiencing homelessness with severe mental illness found that coping was a complex process (Karadzhov et al., 2020), noting that despite prolific research about coping with severe mental illness in general, the coping process in those living in disempowered conditions, including severe poverty and homelessness, has been understudied (Karadzhov et al., 2020). Moreover, the accumulation of adverse life experiences can thwart efforts to manage psychological comorbidities and ongoing life stressors (Padgett et al., 2012). These stressors may be particularly prominent during the re-integration process, where women face challenges including new employment, obtaining stable housing, learning more effective parenting skills, and ongoing legal issues.

Coping in WEH with PTSD

Coping is a process, with dynamics that evolve according to life circumstances. Avoidant strategies focus attention away from stress-inducing stimuli or one's psychological/somatic reactions to it; nonavoidant strategies involve directing attention towards the source of stress (Suls & Fletcher, 1985). Classic meta-analytic findings support the efficacy of both types: some avoidant strategies are associated with short-term positive coping, while nonavoidant strategies predict positive adaption long term (Suls & Fletcher, 1985). In those with PTSD, avoidance assessed using experimental designs (Hayes et al., 2004) and avoidant coping strategies and dissociation (assessed via self-report) were associated with increased PTSD symptomatology; self-report active-coping strategies were associated with resilience (Thompson et al., 2018). Relatedly, avoiding experiencing unpleasant events correlates with maladaptive psychological symptoms related to PTSD diagnoses (Hayes et al., 2004).

Avoidant coping.—Some research on WEH suggests avoidant coping may be associated with poorer outcomes, including PTSD, SUD, and related psychological comorbidities. For example, prior research on previously homeless women with high ACEs found negative, avoidance-based coping (e.g., suppressing emotions, using substances) was common (Schmitt et al., 2021). Compared to housed mothers, unhoused mothers reported higher stress scores, depression scores, and avoidant coping, with avoidant coping and

depression (in turn comorbid with PTSD and substance use) positively correlated (Banyard & Graham-Bermann, 1998). In a study of 871 unhoused individuals, avoidant coping (e.g., withdrawing from others, sleeping more than usual) predicted mental distress (Nyamathi et al., 2000). Such data suggest that interventions that help survivors actively accept and address the experience of trauma and related symptoms may help reduce the stress response and promote sustained recovery. Of note, the complexity of stressors experienced in the context of multiple disadvantages suggests some avoidant coping strategies (e.g., avoiding temporary housing situations that may lead to re-traumatization or feelings of helplessness or stigma) may, in fact, be adaptive (McMordie, 2021).

Non-avoidant coping.—Approach- and acceptance-based coping strategies, including mindfulness-based approaches, may help alleviate the deleterious effects of trauma exposure and help break the cycle of repeated exposure to trauma, PTSD, and SUD. In a longitudinal sample of college students, increased approach-based coping was associated with decreased trauma exposure (Jenzer et al., 2020). In a sample of veterans with PTSD, positive cognitive coping was associated with decreased posttraumatic stress symptoms (Sheerin et al., 2018). Mindfulness, a cognitive process involving focusing one's attention on the present moment (Kabat-Zinn, 1990) has been conceptualized as a form of both approach and acceptance-based-coping, and may help address the PTSD-SUD cycle. Theoretical reviews suggest mindfulness and acceptance-based strategies may be associated with resilience to PTSD and other psychological disorders including SUD (Witkiewitz et al., 2005). Accordingly, empirical data indicates that mindfulness mediates the relationship between PTSD and SUD severity (Bowen et al., 2017).

Mindfulness-based Interventions

Mindfulness-based interventions (MBIs) have been associated with positive outcomes in clinical samples with PTSD (Polusny et al., 2015) and SUD (Himelstein, 2011). In a sample of veterans with PTSD, compared to a control group, those who completed a Mindfulness-based Stress Reduction (MBSR) program demonstrated increased mindfulness and decreased PTSD (Polusny et al., 2015). Relatedly, a scoping review reported moderate-large effect sizes for the relationship between MBIs and reduced PTSD (Boyd et al., 2018). In a study of adults in a SUD outpatient program, Mindfulness-Based Relapse Prevention, compared to cognitive-behavioral relapse prevention and treatment as usual, resulted in reduced drug use and heavy drinking (Bowen et al., 2014). Such findings support the utility of implementing MBIs into treatment for those with co-occurring PTSD and SUD. Hence, community-based treatment centers could be the ideal environments to offer MBIs, as they may promote access, interest, and retention.

Although MBIs demonstrate promise for alleviating psychological maladies in unhoused individuals (Maddock et al., 2017), those with SUD (Korecki et al., 2020), and other low-income populations experiencing high health disparities (Dutton et al., 2014), relatively little work has focused on trauma, PTSD and SUD in WEH specifically. However, a recent systematic review on interventions to reduce PTSD and problematic substance use in survivors of interpersonal violence showed that teaching coping skills, including symptom stabilization, emotional regulation, and social support, may be especially helpful

for women with severe PTSD who have experienced chronic victimization (Bailey et al., 2019). Key components of MBIs include teaching skills that bolster emotion regulation, stress management, and leveraging group-based social support (Baer, 2003; Kabat-Zinn, 1990). Thus these interventions may be helpful at addressing the co-occurrence of PTSD and SUD in unhoused women, many of whom have experienced recurring victimization. This may help break the cycle of trauma and SUD that can perpetuate the cycle of homelessness. Moreover, components of MBI (e.g., community engagement, trigger awareness, increased control, self-acceptance) relevant to the *dual diagnosis* of PTSD and SUD may help facilitate an integrated *dual recovery* (Davidson et al., 2008). Yet, the extant literature has not explored mindfulness in the context of other coping techniques implemented by WEH, particularly using qualitative methods that can elucidate in-depth the experience of trauma, resilience, and recovery in this marginalized population.

The Present Study

We explored coping techniques used by trauma-exposed WEH currently residing in a residential drug treatment site (RDTS). Using a community-based participatory approach (Israel et al., 2001), we used quantitative and qualitative data to describe traumatic experiences in WEH and coping techniques implemented during recovery from trauma, PTSD, homelessness, and SUD. Finally, we explored the use of mindfulness as a coping tool and the potential utility of implementing MBIs to promote recovery from PTSD and SUD in trauma-exposed WEH.

Method

Design

We utilized a multimethod design that implemented quantitative questionnaire data and in-depth focus groups (Maxwell et al., 2015). We used community-based research principles (Israel et al., 2001), informed by a participatory approach that included the use of a Community Advisory Board (CAB; Matthews et al., 2018). Quantitative questionnaire data ascertained descriptive statistics on the sample, including trauma exposure; qualitative data provided an exploration of key research questions regarding perspectives on mindfulness, MBIs and coping strategies related to trauma, SUD, and homelessness. All procedures were approved by the Institutional Review Board (IRB) at the University of California, Irvine.

Setting, CAB Sample, and Procedure

Two RDTSs in Southern California, funded under the same state umbrella organization, participated in the study. The sites were comparable in terms of treatment administered (e.g., level of care, programs offered) and overall demographic composition; both had high diversity in client race/ethnicity and age. RDTSs were funded primarily by Drug Medi-Cal, a treatment funding mechanism for eligible Medi-Cal members whose goal is to “provide eligible Medi-Cal members with access to the care and services they need for a sustainable and successful recovery” from SUD (California Department of Health Care Services, 2022). Average stay length at the RDTSs typically ranged from 60–120 days, with 24–25 hours per week of Drug-Medical treatment, a combination of evidence based clinical practice, “soft skills,” and individual sessions with therapists, case managers, and SUD counselors.

Formal MBIs were not available, although mindfulness-related skills were offered as part of informal client education at one of the RDTSs.

CABs consist of community members who provide consultations to improve capacity and quality of research projects (Matthews et al., 2018). Our CAB included a) six trauma-exposed WEH, living in a RDTS, b) one substance abuse counselor, c) a site licensed clinical psychologist, d) a site clinical manager, and e) a site clinical director. CAB members were drawn equally from both sites; two meetings were conducted over Zoom conferencing with research team members present at both sites; the principal investigator (PI) alternated onsite presence.

Semi Structured Interview Guide (SSIG)

Together, the CAB and research team designed a SSIG that guided subsequent focus groups. CAB members were compensated $10 per session. A key goal was to obtain WEH's perspective on MBSR, which typically has an eight-week format, including a one-day retreat (Kabat-Zinn, 1990). MBSR was selected as it is one of the most successful and widely implemented MBIs, safely and effectively implemented in populations with PTSD (Polusny et al., 2015), and served as the foundation for a variety of subsequent interventions used to treat clinical conditions relevant to trauma-exposed WEH with SUD (e.g., Acceptance and Commitment Therapy, Dialectical Behavior Therapy, Mindfulness-Based Relapse Prevention, Mindfulness Oriented Recovery Enhancement) (Korecki et al., 2020). MBSR involves completing homework assignments including guided meditations. Key practices include yoga, body scan practice, and breath meditation.

Questions from the SSIG included: What are your prior experiences with mindfulness activities such as yoga, body awareness, and guided meditations? What coping skills have you used in the past to deal with your trauma? The full, finalized SSIG is included in Supplement A.

Using IRB-approved flyers, RDTS clinical staff informed residents of the opportunity to participate in focus groups. The research team screened interested women. Eligibility included: age over 18, experienced homelessness in the last six months, and exposed to a DSM-5 criterion A trauma (American Psychiatric Association, 2013).

Focus Group Sample, Setting and Procedure

In total, 35 women were screened; 32 were eligible. A convenience sample of 28 WEH participated in the focus groups (N=4). Participants in the focus group were distinct from CAB members to differentiate between the research design process (a function of the CAB) and data collection (which occurred during the focus groups) to minimize potential bias. Of eligible WEH who did not participate, one had a court case and two had conflicting off site appointments; one decided not to participate. Setting is the same as above. Flyers were distributed throughout the RDTSs by site staff, informing women of the opportunity to participate.

Focus groups were selected as a methodology over individual interviews as randomized, experimental work shows that focus groups can more effectively facilitate disclosure of

sensitive and personal information (Guest et al., 2017). They may also be better for exploring clinical patients' perspectives (Coenen et al., 2012) as participants may feel more supported and less stigmatized when sharing in a group. Indeed, in some populations, the group-based context of the focus group may enable greater comfort and reassurance and a feeling that one's difficult experiences are shared by others; in those instances, participants may find focus group discussions a positive experience (Jordan et al., 2007). Focus groups can also provide a safe space for vulnerable women to share their experiences without fear of criticism, maximize the perspectives of individuals, and can empower individuals of the group to speak, rather than focus on responding to the researcher's question in a one-one-one interview (Owen, 2001). We took many steps to ensure the emotional safety of participants: everyone was reminded to keep what was shared confidential, pseudonyms were used, focus groups were conducted by a psychologist, site staff was available at any time should participants need further psychological assistance, and participants were informed their participation was voluntary and they could stop at any time.

Using the SSIG, focus groups, each with seven WEH, were led by the PI at a private location at the RDTS. MBSR activities were demonstrated using a theater-style approach; WEH did not complete the MBSR course but were asked to comment on the acceptability of its key components. Focus groups were audio recorded; two assistant moderators took detailed notes. Pseudonyms were created to protect anonymity. A trained therapist was available onsite if any adverse events or extreme distress occurred. Focus groups lasted 1.5–2 hours. Women were compensated $15.

Quantitate measures

Participants completed a sociodemographic questionnaire (see Supplement B) and the *Life Events Checklist* (Gray et al., 2004), a measure of adverse life experience with good psychometric properties. Participants were asked when in the lifespan each event occurred (i.e., before age 18, 18 or older, or both). They also completed the *Primary Care PTSD Screen (PC-PTSD)*, a five-item screening tool that has been validated against clinician diagnostic interviews (Prins et al., 2015).

Qualitative analyses

Focus groups were professionally transcribed; the PI and three research assistants (RAs) involved in the focus groups met to engage in precoding activities. First, each RA independently reviewed four transcripts (one from each focus group) in entirety. Key constructs were highlighted using *open coding* techniques, with an inductive research process that drew from Grounded Theory (Glaser & Strauss., 1967), whereby the codes themselves emerged from the data (Glaser & Strauss, 1967; Skjott et al., 2019; Williams & Moser, 2019).

Open coding (Williams & Moser, 2019) was used to identify broad and distinct concepts using the full transcripts from the focus group, derived from words, phrases and "in vivo" coding (Manning, 2017), where an exact phrase from a participant's response was used to define a code. After this initial list of codes was generated, using *axial coding*, a process that examines open codes to find those most interrelation or overlap, transcripts were re-reviewed

and themes were refined, aligned and categorized (Williams & Moser, 2019). Then, using *selective coding*, a process where categories of data organized during axial coding are combined conceptually and expanded thematically, data were organized into cohesive and meaning-filled expressions (Williams & Moser, 2019). During the *selective coding* process, quotes (and associated codes) were placed in a unique tab in Excel, denoting the potential theme. Subthemes were derived from the axial coding process. Axial and selective coding procedures used a hybrid model of inductive and deductive processes (Linneberg & Korsgaard, 2019), where concepts derived from the SSIG, CAB discussions, and stress and coping theory (Lazarus & Folkman, 1984; Suls & Fletcher, 1985), as applicable, were used to inform emerging themes and subthemes.

For example, one quote from the focus group was, “My drug use that I was coping with had got out of hand and I ended up being in the psych ward.” During open coding, this was defined as “using drugs and alcohol to cope” and “self-medicating.” We also noted the participant described this method as “ineffective.” Next, during the axial coding process, this code/quote was grouped into “avoidant coping,” which also became a subtheme. during the selective coding process, “avoidant coping,” was grouped with other coping techniques into one of the main themes: “ways of coping with trauma.”

RAs used written notes and audio recordings from the focus groups for further contextualization. The RAs and the Principal Investigator (PI) met at least weekly during the coding processes to review transcripts line-by-line discuss potential codes and themes. At each stage in the open, selective, and axial coding process, RAs coded individually and then discussed their codes with the group. Through this iterative process, detailed meeting notes were kept and coding disagreements were resolved by all three coders and the PI via discussion and consensus (Campbell et al., 2013).

Results

The Sample

Participants were, on average 30.29 years old (*SD*=8.6, range=18–59) and reported diverse racial/ethnic identities: White (*n*=10, 35.7%), Black (*n*=5, 17.9%), and Hispanic (n=13, 46.4%); two (7.1%) additionally identified as part Native American. Educational attainment was relatively low, although variability existed: less than high school (*n*=11. 39.3%), high school/GED (*n*=6, 21.4%), some college (*n*=19, 32.1%), high school/GED (*n*=6, 21.4%), some college (*n*=1, 35.7%), and bachelor’s degree (*n*=1, 3.6%). One (3.6%) WEH who completed high school/GED also reported vocational training.

All 28 WEH had been diagnosed with a SUD and had been involved with the justice system, with 22 (78.6%) also having received a doctor diagnosed mental health condition. These included depression (*n*=18, 64.3%), anxiety (*n*=18, 64.3%), PTSD (*n*=16, 57.1%), bipolar disorder (*n*=4, 14.3%), attention deficit disorder (*n*=3, 10.7%), schizophrenia (*n*=4, 14.3%), borderline personality disorder (*n*=4, 14.3%), and obsessive compulsive disorder (*n*=1, 3.5%). Of the participants, 17 (60.7%) identified as heterosexual, 4 (14.3%) identified as homosexual/lesbian, 6 (21.4%) as bisexual, and one refused. Most of the women had children (n=25, 89.3%), with one woman currently pregnant.

Quantitative Results

Trauma exposure and prevalence of PTSD.—Table 1 presents trauma exposure prevalence. Exposure was exceedingly high both in childhood and adulthood. Women were also provided the opportunity to report traumatic events not specifically assessed in the trauma inventory. Those reported included: cracked skull, held at gunpoint, miscarriage, and parental conflict. Three women specified losing their children to Child Protective Services, three specified domestic violence, and one indicated extreme stress about being gay. Of participants, 89% met DSM-5 criteria for probable PTSD.

Qualitative Results

Overview—During the initial open coding procedure, 212 potential codes were generated. During axial coding, 38 codes were identified, and then pared down into eight themes. Four of these themes related to the coping process including perspectives and experiences with mindfulness and are presented in this manuscript. (The additional four themes centered specifically on the acceptability and feasibility of a mindfulness program, are conceptually distinct, and beyond the scope of the present analyses.) The four themes were: 1) ways of coping with trauma; 2) perspectives on mindfulness; 3) prior experiences with mindfulness, and 4) challenges for conducting a mindfulness program.

Theme 1: Ways of Coping with Trauma.—Women described a variety of strategies for coping with their trauma, relevant to the experience of homelessness, trauma, and the recovery process. These coping strategies included those used prior to, during, and subsequent to the experience of homelessness. These strategies were grouped into the subthemes of 1) avoidant coping; 2) emotion-focused coping; 3) proactive coping; and 4) social support seeking.

Subtheme 1: Avoidant Coping.: Avoidant coping techniques were relevant to chronic and repeated experiences of homelessness, trauma, and difficulty with the recovery proves. These included eating, sleeping, using drugs and alcohol, having sex, distraction (e.g., playing video games) and isolating from others. The WEH mostly described avoidant techniques as “ineffective” for managing trauma and stress and commonly used prior to coming to treatment.

> “I was self-medicating on drugs. That was my biggest coping skill. …I came into [treatment facility] hoping to learn new coping skills because I was self-medicating. So, drugs was my coping skills for like three years.”
>
> -WEH1

> “I would hide from everything. I would just run from it and just going keep my mind occupied with other things that didn’t matter. Like, you know, like going and using or just skipping, you know, the reality of what just happened. Like, I would just hide from it. ….”
>
> -WEH2

> “Well, I used drugs in the past so that was, but that was a coping skill. But I’m learning healthy coping skills now, but that was when I using.”

WEH3

> "Not just that but like it was, it was ineffective, and like it only built on to like, the shame or guilt that you were already feeling. Like, for like in my example. Usually, I don't get so much angry as I do get ashamed. So, hiding away from it only builds on like, the stress of it, because I haven't faced whatever, whatever it is. So, it gets stronger, and the fact that I would do drugs, or try to run away from my problems, or drink whatever."

WEH4

Subtheme 2: Emotion-focused Coping.: Emotion-focused coping was commonly implemented in response to experiencing a stressor or a stressful emotion and included mainly healthy activities. Examples included self-care (e.g., taking a hot bath or shower), reading, writing, expressing emotions, prayer, journaling, listening to music, reading, gardening, self-reflection, exercise, breathing, or talking to a therapist. The use of art was frequently reported. Some WEH reported "expressing emotions when they come up" or allowing themselves to cry.

> "I write out stuff to people and talk about it to get it off my chest instead of holding it in because I have a bad problem doing that."

-WEH4

> "For me, like, I was very, like quick to react to things and angry and like, I was a little out of control. But being in [treatment facility], …they taught me like the breathing and calming down because I have really bad anxiety. -- And I practice it and I never thought that it worked before. But I know if you really practice it and want to calm down and change and you do what they say and follow direction and breathe and do the, you know, just breathe, breathing…helps me… It calms me down a lot."

-WEH5

> "Expressing the emotions when they come up. Don't hold them in. So, I just have like a couple people around here that I go to, and I voice and vent to."

– WEH1

Subtheme 3: Proactive Coping.: Six women mentioned proactive coping techniques including avoiding negative influences, exploring healthy alternatives to negative or avoidant coping (e.g., using a nicotine patch to quit smoking), and practicing new coping skills taught in treatment. These coping skills related to techniques that could be done *in advance* of experiencing stress in order to facilitate a better response to it.

> "Focus, setting your intention. For us, I mean, we have a lot of trauma. We have a lot of PTSD. We have a lot of flashbacks, bad dreams. We have all of those, those symptoms of our trauma. And so, when you become aware of your body and your mind and where it's taking you, you can control it. And when you've learned to practice that control, practice makes perfect. So, you become a perfectionist in controlling your mind to not detour into those thoughts."

-WEH6

> "You know, I just accept what happened to me. When I came to this program, I accepted a lot of things. And so, with accepting …[what] happened to me and that…wasn't okay, now I move forward. It's okay for me because I can't just keep on thinking… now I know not to do things or be in certain places."

-WEH2

Subtheme 4: Seeking Social Support.: Learning how to effectively utilize social support was often discussed as a new skill learned during treatment to help with traumatic stress symptoms and memories, drug and alcohol cravings, and other sources of general stress and distress. Main sources of social support were peers at the RDTS, family (specifically mothers and sisters), and therapists; it was often used in conjunction with emotion-focused coping.

> "I usually talk to my mom or to my sister or here to my therapist, you know, and I let her know how I'm feeling when it comes to that."

-WEH5

> "But one of like the new coping skills I'm using is like talking to my peers. Because normally, I don't like talking to people because I don't want to be a burden on them. But just knowing that I have somebody that will listen to me as like, I talked to them and sometimes they don't even say anything back. It just makes me feel like, like I just got a whole lot of stuff off my chest."

-WEH6

Theme 2. Perspectives on Mindfulness.—While many women were familiar with the term "mindfulness," they had various conceptualization of its definition and use. These subthemes were: 1) mindfulness as a calming technique; 2) mindfulness as a grounding technique; 3) non-judgment and self-acceptance; and 4) respect and awareness for others and surroundings.

Subtheme 1: Mindfulness as A Calming Technique.: Some participants were familiar with the term mindfulness and related techniques. This primarily related to using mindfulness as a component of an emotion regulation strategy to promote stress reduction and less reactivity, decrease experiences of anger and aggression, and enhance feelings of calm.

> "I feel like it kind of just, it helps you like soothe your mind. So, instead of you like getting to a point where if you're angry and then just going off on somebody and exploding, you can take that and just meditate on it and calm down and be able to walk away and then it can give you like a piece of mind, kind of a thing."

-WEH7

> "It [meditation] relaxes me a lot. Like, especially if I'm like in a heated moment, to meditate and just collect myself and get a hold of like, me, it helps."

-WEH5

> "So, I really like the use of like mindfulness techniques like meditation and yoga..…they allow your body to relax and release tense emotions, and you might feel heartbreak throughout the day. And it, and it becomes easier, especially during the nighttime when you find it hard to sleep because you find your mind like, like, racing. So, utilizing mindful techniques I feel, allows you to release the stress of the day. Kind of put your name on it and be done with it."
>
> -WEH4

Subtheme 2: Mindfulness as a Grounding Technique.: Relatedly, WEH talked about using mindfulness as a tool to reorient the mind towards present-moment awareness and find psychological safety during times of stress. One WEH specifically stated, "I feel like it's [mindfulness is] a grounding technique" while another stated "they [mindfulness techniques] put you in a state of what you, where you, are now."

> "I think mindfulness, the first thing that comes to me is to bring myself safe."
>
> -WEH8

> "And if your mind's too, like, going at the same time like, you're thinking about too much, you can come back to like what's going on and use your five senses and kind of just not worry so much about what happened or what's going on. Just worry about that, like she said, present moment."
>
> -WEH9

Subtheme 3: Non-judgment and Self-acceptance.: Several women mentioned mindfulness being related to non-judgment of self or feelings, and that process being a tool to "feel better" during times of stress.

> "Being mindfulness is like, having no judgment on your feelings as you feel. It's kind of like you're accepting what you're feeling and that moment so you're aware of that. You're not going to judge that. You can go through the process and then eventually, you'll feel better."
>
> -WEH10

> "Yeah, you don't judge your own judging."
>
> -WEH4

Subtheme 4: Respect and Awareness for Others and Surroundings.: Women often described mindfulness as a component of being respectful for the people around them and their surroundings more generally. Some described being mindful as "thinking of others."

> "To be in the now, to know what's going on at that moment …so you're aware of your surroundings, you're aware of what you're doing."
>
> -WEH9

> "Yeah, you're like aware of your feelings, your emotions, the smell, the flowers, the trees. …you're also mindful of, you know, …respecting, okay, they're sleeping, I'm going to be mindful and not be loud. To be generous."

-WEH5

Theme 3. Prior Experiences with Mindfulness.—Many of the women reported prior experiences with mindfulness and related practices. The subthemes were: 1) familiarity with mindfulness as a technique; 2) mindfulness as a coping technique; 3) mindfulness for relaxation; and 4) component of faith practice.

Subtheme 1: Familiarity with Mindfulness as a Technique.: Many of the women expressed familiarity with mindfulness in the past, including learning about it while incarcerated or in treatment. Many of them had heard of or participated in sitting meditation, yoga, daily reflections, and body awareness activities.

> "Because when I was in jail, I went to like the meditation class or whatever. And that's what the teacher said to do. She said start off small like two minutes."
>
> –WEH8

> "In some of our classes, we do it. Like, some of the, like, facilitators will read something…but like I haven't had a whole lot. I've been to like a couple of AA meetings that were meditation meetings and those are pretty cool because they like read from a little book. Like, you meditate and then you read from the little book and you meditate again and then you talk about it and you meditate again."
>
> –WEH12

Subtheme 2: Mindfulness as a Coping Technique.: The women described mindfulness as helpful for coping with stress and other maladies (e.g., insomnia, physical pain) and downregulating during times of distress (e.g., feeling upset).

> "It helped me deal with like, physical health issues as well as mental."
>
> -WEH1

> "I used to …go to sleep when I couldn't fall asleep. I used to do the body scan."
>
> -WEH14

> "And that meditation, …I like breathe and then I try to like clear my head. And when I clear my head, I'm just like, clear my head and then I come down. Like, for me being like angry or wanting to like hurt them, it just like goes away. It goes away. So, without even realizing that it was helping me, it was helping me."
>
> –WEH15

Subtheme 3: Mindfulness for Relaxation.: Relatedly, some reported familiarity with mindfulness as a tool for relaxation, during times of stress, for anxiety reduction, and to not "keep things bottled up." They described their use of mindfulness-related practices during times of distress and as a way to experience and process difficult emotions.

> "I used it as an anxiety releaser."
>
> -WEH16

> "So, I really like the use of like mindfulness techniques, like meditation and yoga. Not just because they put you in your state of …where you are now, but they allow your body to relax and release tense emotions, and you might feel heartbreak throughout the day. And it, and it becomes easier, especially during the nighttime when you find it hard to sleep because you find your mind like, like, racing. So, utilizing mindful techniques I feel, allows you to release the stress of the day. Kind of put your name on it and be done with it."
>
> -WEH17

Subtheme 4: Component of Faith Practice.: Several of the women discussed mindfulness in the context of their faith and other spiritual practices. More specifically, they reported exposure to the concept of mindfulness (mostly meditation practices) that were incorporated into church or other faith-relation settings.

> "I go to the faith-based meditation that they have here and listen to church type music and it's very relaxing."
>
> -WEH1

> "I also go to the faith-based [meditation], and it's also relaxing, and it helps me a lot."
>
> -WEH18

Theme 4. Challenges for Conducting a Mindfulness Program—Although overall the women were positive about MBIs, they noted potential challenges to implementation and provided general feedback regarding conducting MBSR with this population. These subthemes were: 1) difficulty focusing; 2) difficulty trusting others; 3) self-judgement; 4) trigger awareness; and 5) challenges to participation.

Subtheme 1: Difficulty Focusing.: Many WEH reported that, based on their experiences during the demonstration and during prior experiences with mindfulness practices, difficulty focusing during the MBSR activities, including mediation practices and class discussions, may be an issue due to internal cognitive distractions or environmental noise. Other difficulties included sitting in "one place too long" and that in treatment sometimes "it's just hard to focus."

> "I've never done that before. I tried to do that, but I can't focus or even concentrate on doing it. It's one of my big things. Like, I can't concentrate. I can't focus on it."
>
> –WEH11

> "So, I really want to learn how to, you know, meditate and whatnot. Because the only thing I know how to do right now is just breathe or take a walk or cry because I can't get into the yoga thing. I can't focus. I cannot focus. And then like, when there's a noise like, it's bad. It just got me out of it, you know. So, for me that's really hard."
>
> -WEH19

Subtheme 2: Difficulty Trusting Others.: Many WEH reported that their difficulty trusting others should be considered when conducting group-based interventions. Key concerns involved not identifying with other RDTS residents, low trust from living on the streets, and feeling others did not care about their experience or perspective.

> "Sometimes I feel like even talking to them [other residents] is pointless. So, I'd just rather just shut off … I'm not going to say nothing because I know it's not going to mean nothing."
>
> -WEH2

Subtheme 3: Self-judgement.: Another concern related to the high level of global and specific self-judgment many of the women reported. Such concerns were relevant to negative self-oriented cognitions, forgetting to praise oneself, or feeling stupid. Self-judgment was described with respect to trying a new activity such as yoga, difficulty focusing during instruction, and feeling like their prior drug use caused cognitive impairments.

> "Like, we're not able to focus on that because we've been through so much. And it's like, hard for us get our mental like, right. I feel like even though I've been here for like almost three months…I can understand what they're saying."
>
> -WEH9

Subtheme 4: Trigger Awareness.: Many WEH emphasized the importance of being aware of triggers, including memories or references to prior trauma exposure and substance use, and issues currently being unpacked as part of individual psychotherapy. For example, one WEH referenced water bottles and pens as examples of everyday objects formerly used as drug paraphernalia. One veteran referenced being outside as a potential trigger as it reminded her of her prior combat experience. Another WEH noted many in treatment were reconciling "harsh" matters from the past and were quite raw emotionally. Simultaneously, some women expressed optimism that mindfulness and related techniques could be useful tools to face and overcome triggers, although creating a "safe space" was critical to that effort.

> "If you're drug addict, it's every little thing can become triggers."
>
> –WEH20

> "I don't like closing my eyes because if I close my eyes, I get flashbacks. I see everything again. I don't feel comfortable with that."
>
> –WEH21

Subtheme 5: Challenges to Participation.: Despite overall positive feedback, challenges to conducting MBSR with trauma exposed WEH were identified. A key concern was inspiring participants to enroll in the program and engage in the practices. Many suggested a reward for participation but cautioned that could also lead to recruiting people who are not serious about the program. Other concerns included mediation length (e.g., 45-minute meditations might be too long) and scheduling MBSR classes without conflicting with other RDTS requirements.

> "Because, you know, either you're going to take it seriously or you're not. In those who take it serious will probably come back and those who don't, probably won't come back the next time, you know."
>
> – WEH14

Discussion

Herein, in a sample of WEH living in a residential drug treatment program, we documented the experience of trauma throughout the lifespan. We explored coping skills implemented in response to that trauma and used qualitative methods to elucidate WEH's perceptions about the benefits and detriments of such skills. On balance, approach, proactive, and emotion-focused coping seemed to help promote adaptive behaviors; avoidant strategies were generally discussed in the context of maladaptive strategies for dealing with homelessness, trauma, and SUD. Moreover, we investigated the potential of MBIs to aid in recovery from addiction and trauma in WEH, finding that mindfulness-based practices were viewed positively, and MBIs received enthusiastically despite several challenges identified. By using both quantitative and qualitative methods, we provide a richer context for understanding the process of recovery from trauma and related stressors in trauma-exposed, WEH. Such a multi-method approach helps inform "participatory action research," by providing an integrative approach to understanding and addressing complex social issues (Ivankova & Wingo, 2018), including the intersection of and recovery from trauma, homelessness, and substance abuse.

Quantitative data illustrated the exceedingly high level of trauma exposure experienced by WEH throughout the lifespan. Strikingly, over 96% reported physical assault and 85% reported sexual assault; nearly 60% reported being held in captivity. Traumas occurred early in life (before age 18) and in adulthood, in alignment with prior research documenting high trauma exposure throughout the lifespan in those experiencing homelessness, leading to associated negative psychiatric outcomes (Tsai et al., 2015). Research on unhoused parent-child dyads demonstrates intergenerational relationships between parent-childhood adversity, parent-adulthood adversity, child adversity, and child-traumatic symptomatology (Lafavor et al., 2020). This intergenerational cycle is reinforced through both environmental and biological/genetic processes that maintain PTS symptoms (Yehuda et al., 2016), perpetuating health disparities.

As with prior research (Karadzhov et al., 2020), our data revealed WEH engaged in a range of coping behaviors to manage stressful events and PTS, SUD, and other mental health ailments. Women tended to discuss avoidant coping in the context of unhealthy behavior patterns (e.g. numbing with drugs, alcohol, or sex), similar to research suggesting avoidant strategies may be associated with deleterious outcomes and PTSD maintenance (Thompson et al., 2018). Since avoidant coping involves actions and thoughts that evade confrontation with stressful events (Wu et al., 2013), such coping could thwart efforts in treatment aimed at teaching healthier coping skills. In contrast, approach-based coping strategies and those focusing on emotion-regulation and social support were discussed by WEH as facilitating recovery, psychological adjustment, and healing. This aligns with research on trauma-exposed patients finding active coping strategies positively correlate with resilience

and negatively correlate with PTS (Thompson et al., 2018). Using art as a coping tool was discussed positively by the participants, similar to work suggesting art-based therapies can enhance resilience and reduce PTS (Schouten et al., 2019).

WEH generally reported familiarity with the term mindfulness and related practices (e.g., yoga, sitting meditation), describing mindfulness as proactive or emotion-focused coping, in alignment with work suggesting mindfulness practices can be viewed in the context of approach and acceptance-based coping (Thompson et al., 2011). Overall, mindfulness practices were viewed positively, in accordance with research indicating feasibility and acceptability of MBIs with homeless adults (Maddock et al., 2017) and populations experiencing high health disparities more generally (Dutton et al., 2014). Several challenges to implementation were identified, related to both mindfulness practices (e.g., difficulty focusing) and administering an intervention at an RDTS (e.g., difficulty trusting others, trigger awareness). Suggestions for overcoming barriers were noted (e.g., incorporate rewards, shorten practices, onsite therapist availably). Such findings provide useful data for designing and implementing MBIs with trauma-exposed WEH.

Participants reported that engaging in mindfulness-related practices (such as yoga, breathing, meditation, and reflection) were helpful for downregulating heightened emotional states including anger, anxiety, and stress. Such self-report data aligns with prior empirical work suggesting that MBIs help improve biological indicators of the stress-response (Bower et al., 2017) and may help lower physiological arousal (Lang et al., 2012). Such processes are critical for reducing traumatic-stress-related symptomatology, as data suggests biological dysregulation may precede the development of – and at a minimum maintain – PTSD symptoms (van Zuiden et al., 2013). Relatedly, research suggests mindfulness and acceptance are associated with post-trauma resilience (Thompson et al., 2011). This provides evidence that offering MBIs and related practices in treatment facilities serving women experiencing high health disparities could encourage a broader range of coping strategies to help deal with the stressors of recovery and re-integration (e.g., transition to sober living, new employment, parenting challenges). It also bolsters research with homeless youth (Sibinga et al., 2011), unhoused adults (Maddock et al., 2017) as well as WEH and young children (Alhusen et al., 2017) showing that MBIs could help with downregulation of difficult emotions, facilitate better coping, and improve mental health.

Such tools may also be concurrently helpful at alleviating co-occurring SUD, particularly with trauma-exposed WEH. The concept of integrating mindfulness practices into SUD treatment has existed for decades, given that cognitive and behavioral processes associated with mindfulness are integral to promoting abstinence and reducing relapse (Breslin et al., 2002). These processes include increased confidence for managing stressors, awareness of relapse triggers and decreased drug-cue relapse, dealing with negative affect, increased confidence, and acceptance of the past with commitment to change (Breslin et al., 2002). Lack of effective tools for coping with interpersonal stress and negative affect contributes to relapses (Breslin et al., 2002), evidenced in daily diary studies (Ayer et al., 2011) and epidemiological work (Keyes et al., 2011). Such experiences were reported by the women in our focus groups. From a mechanistic perspective, mindfulness may increase awareness of potential triggers (Breslin et al., 2002), contributing to improved monitoring

of situations that may promote relapse and destination to other relapse triggers over time. Resultingly, data suggests that mindfulness-based relapse prevention strategies that teach stress management, cue and trigger awareness, and effective coping skills to regulate negative affect and reactivity may be helpful to promote abstinence and prevent relapse (Bowen et al., 2014; Witkiewitz et al., 2005). Hence, in the context of the findings presented herein, MBIs may be useful to integrate into services for unhoused individuals.

However, such MBI programs may be best administered at an RDTS or other homeless service setting that could consistently administer the intervention over time, as prior research has demonstrated the importance of ongoing provider support and comprehensive and integrated services when administering trauma-informed care to those experiencing homelessness (Hopper et al., 2010). Moreover, based on participant's feedback, MBI practices readily lend themselves to a gender-responsive treatment model (Saxena et al., 2014). For example, the intervention can be designed (including group size, trigger awareness, trainer characteristics) to account for the specific needs of trauma-exposed women (e.g., victimization, motherhood) in the context of the gender-specific stress and stigma (e.g., felt invisibility) of experienced homelessness for women (Whitzman, 2006).

Conclusions, Limitations, and Future Directions

This study presents data on traumatic experiences, ways of coping, and the potential for mindfulness to alleviate health disparities in an underserved, marginalized population. We note several limitations. Ours was a convenience sample of women from Southern California at a state-funded drug treatment facility, potentially limiting generalizability since treatment access and benefits vary by state and men were not included. Focus groups were selected rather than interviews, although the literature on which is superior for discussing sensitive topics with vulnerable groups is not definitive (see Jordan et al., 2007 for a discussion). Data was collected immediately before the COVID-19 pandemic, thus due to statewide mitigation restrictions we were not able to return to site nor contact unhoused members of the CAB and focus groups to validate transcripts and data codes. All women had been in treatment for at least 30 days and do not represent perspectives from the acute phase of substance detox. Indeed, meta-analytic findings suggest mindfulness is not an appropriate first-line treatment for the acute phases of psychiatric conditions (Andersson et al., 2014). While our data provides a favorable view of the potential for mindfulness to benefit trauma exposed women with co-occurring PTSD and SUD, such techniques may be most beneficial after obtaining some psychological stability or during the maintenance and relapse prevention phases of treatment. While trauma exposure was exceedingly high, women reported a variety of adaptive, approach based, and proactive coping techniques, as well as healthy coping skills related to emotion regulation. While there are important challenges to consider, on balance, mindfulness-based techniques may help promote abstinence and facilitate recovery in WEH. Taken together, our data provide an optimistic view of the potential for resilience and recovery in WEH who have experienced severe trauma and high health disparities.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1.

Exposure to negative life events across the lifespan

	Lifetime		Childhood before age 18		Adulthood after 18	
Event	**%**	**n**	**%**	**n**	**%**	**n**
Physical assault	96.0	27	53.6	15	82.1	23
Sexual Assault (rape, attempted rape, made to perform another sexual act)	85.0	24	53.6	15	67.9	19
Assault with a weapon	82.1	23	39.3	11	64.3	18
Other [besides sexual assault] unwanted sexual experience	71.4	20	42.9	12	57.1	16
Transportation accident	67.9	19	42.9	12	50.0	14
Captivity (kidnapped, abducted, POW, etc)	57.1	16	14.3	4	50.0	14
Serious accident at work, home or during recreation activity	53.6	15	32.1	9	25.0	7
Sudden violent death	46.4	13	21.4	6	35.7	10
Severe human suffering	42.9	12	25.0	7	32.1	9
Sudden accidental death	39.3	11	10.7	3	32.1	9
Fire or explosion	35.7	10	21.4	6	14.3	4
Serious injury, harm or death you caused to other	32.1	9	7.1	2	28.6	8
Life-threatening illness or injury	28.6	8	3.6	1	25.0	7
Exposure to toxic substance	17.9	5	3.57	1	17.9	5
Combat	14.3	4	0.0	0	14.3	4
Any other very stressful event or experience	64.3	18	32.1	9	53.6	15