Healing Us Together (HUT): Using S.E.L.F. Community Conversations to Build a Trauma-Informed and Healing-Centered Ecosystem Across Baltimore City

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Introduction

Due to the COVID-19 pandemic, individuals, families, and communities have been exposed to increased material hardships, unwanted episodes of isolation, social distancing, and quarantine, and forced evacuations from schools, colleges, universities and places of employment; all of which have been associated with traumatic stress.[1,2] In Maryland, on the day that this evaluation started (April 25, 2021), the data revealed that of the confirmed COVID-19 cases where race/ethnicity was known, there was clear disparity.[3] The percentage of population relative to percentage of cases and deaths showed that Blacks (29%, 33%, 35%) had higher rates of death per population compared to Whites (51%, 40%, 51%), Hispanic (10%, 19%, 9%), and Asian (6%, 3%, 4%) (COVID Tracking Project, 2021). Baltimore is the largest city in MD with a large population of Blacks (62.8%) compared to Whites (32%), and as of April 25, 2021, Blacks had higher COVID-19 cases and deaths (65%, 73%) relative to their white counterparts (23%, 22%).[4,5] Coupled with the COVID-19 disparities in Baltimore City, the COVID-19 pandemic has collided with the violence and the racial trauma pandemics. This makes intervention strategies futile if these pandemics are not simultaneously addressed. For example, findings from a study in Baltimore City examining vigilance and threat of exposure to discrimination and depressive symptoms found that Black adults had higher levels of heightened vigilance relative to White adults.[6] In addition, the vigilance was shown to be positively associated with depressive symptoms and related to the Black-White disparity in depression.

Some of those most at risk for exposure to traumatic stress may be those who fall into the high-risk category for more adverse effects of COVID-19. These high risk individuals include Black, Indigenous, and People of Color (BIPOC) who suffer disproportionately from one or more the following underlying chronic conditions: adverse childhood experiences (ACE_1-e.g., physical abuse, incarcerated family member), adverse community experiences (ACE_2-e.g., racially segregated neighborhoods, community violence), adverse cultural experiences (ACE_3-e.g., stereotypes, prejudices, discrimination), obesity, hypertension, chronic lung disease, diabetes mellitus, and cardiovascular disease.[7-13] These findings highlight the need for developing strategies to address the pervasive, toxic, and traumatic stress and increase resilience among Baltimore City residents.

The Center for Disease Control and Prevention (CDC) acknowledged that during periods of a pandemic like coronavirus (COVID-19), interventions that are not pharmaceutical in nature become the most readily and effective means of regressing the transmission of the virus in communities.[14] One such intervention, known as *community mitigation*, is an actionable approach that communities utilize to interrupt transmission of the virus whereby minimizing the morbidity and mortality as well as the social and economic effects. It is incumbent on community leaders to develop immediate strategies to prevent community members from experiencing the level of disparities related to COVID-19 and racial trauma.[7-13] Evidence-based community mitigation strategies that target BIPOC community members by utilizing culturally responsive healing methods in an urban environment are scarce. To address this gap in service delivery, the Healing Us Together (HUT) project was developed as a trauma-responsive and healing centered community-based virtual problem-solving intervention project. It intends to provide culturally responsive healing methods using a community conversation model. Currently, HUT is being utilized as a mitigation strategy for people to begin to heal from the historical and current effects of exposure to chronic traumatic events and community adversities in Baltimore.

HUT's Genesis

Prior to the inception of Healing Us Together (HUT), Gwen Brown (Behavioral Health System Baltimore, BHSB) and Dr. Kevin Daniels (Morgan State University School of Social Work, Minister's Conference of Baltimore and Vicinity [MCBV] and Healing City Baltimore Team) met to discuss the challenges facing Baltimore as it relates to both COVID-19 and the multi-tiered levels of violence that had gripped the city. It was decided that there was a need to organize and collaborate on further action strategies. Gwen Brown and Dr. Daniels had previously worked together on other organizing actions around Baltimore City, and both are team members on one of the first city-wide legislative policies surrounding trauma in the country (Elijah Cummings Healing City Act that went into effect on March 10, 2020).

Subsequently, several meetings were held with other strategic leaders from both BHSB and MCBV research team. The main themes from those discussions were "trauma-responsive work needs to include community members" and "culturally appropriate and more healing-centered strategies need to be developed." One of the models that BHSB had been adapting since 2014, through the work of Patricia Cobb Richardson, to implement in communities the S.E.L.F. Community Conversations model. Patricia was joined in this work by Terri Alexander, who helped to implement the model in a SAMHSA-funded project. Gwen encouraged the group to consider this model because it is grounded in guiding principles that drive equity and fit the unique intergenerational and diverse needs of communities in Baltimore (inclusive of faith leaders). The team decided to adapt the S.E.L.F. curriculum to implement within HUT to provide services and saturate Baltimore's fourteen (14) districts with trauma responsive strategies. To support ongoing learning, BHSB connected HUT leadership with other community groups that had experience collaborating with BHSB to implement the S.E.L.F. Community Conversations model. Feedback from the community groups revealed results that demonstrated the appropriateness of the curriculum in Baltimore. However, the team felt that there was a gap in the cultural aspect of the curriculum. This barrier to culture was filled by enhancing the curriculum with the Nguzo Saba (7 Principles of Kwanzaa) and Healing-Centered principles to further provide cultural significance to the model.

Moreover, the team decided that Baltimore communities would be well-served through the S.E.L.F. intervention strategy of community conversations, and it was decided to call it Healing Us Together (HUT). This modality has the potential to be best to serve as both a healing catalyst and nexus for other resources of discovery for communities. As the developmental process other community partners were added to further enhance the foundation of the initiative. Community partners were crucial in the selection of community leaders that might serve as the first cohort to begin building out the model and initiative. To that end, during the selection process, many felt compelled to be a part of the process because of the stress and strain of the traumatic experiences many were experiencing whether directly or indirectly with both the public health and public safety crisis in the city. There was an overwhelming response by community leaders interested in learning about the HUT conversations. This made the process one of ease and caused us to have a waiting list of community members who voiced an interest in joining the HUT facilitation training sessions.

Funding

The HUT process was presented to Dr. Phil Leaf, Center for the Prevention of Youth Violence, Johns Hopkins School of Public Health, to determine funding opportunities. HUT was able to acquire funding from the Stavros Niarchos Foundation.

Program Description

HUT is developed based on characteristics of the African rites of passage model. The African rites of passage model identifies observances of change that can occur in place, state, social position, or age.[16] For the purposes of HUT, the African rites of passage is being used to observe changes in community member's states of being regarding trauma responsive and healing centered language and descriptions. This is being done based on the three phases identified by van Gennep in 1960.[16] The first phase is the separation or preliminal phase. During this phase HUT participants are selected and agree to engage in community conversations that detach them from a fixed view of trauma, community adversity, and healing. Community leaders are separated from their original *hut* (community) and are trained on the HUT model. During this separation period, there is a journeying with a cohort of learners to prepare them for their return back to the community. The cohort of learners is trained to create a brave space that allows for the development of trust and risk-taking that is required for the explorations of new attitudes and behaviors regarding trauma, community adversity, and healing.[17] The second phase is the margin or liminal phase. It is through this phase that the true intervention begins. The state of the HUT participants is oftentimes quite ambiguous during this phase as they maneuver through their past individual views of trauma and chronic community adversity and starts to develop a collective state of healing-centered strategies. The third phase is the aggregation or postliminal phase. This is the phase where HUT's missions and goals are consummated by the HUT participants, and they have begun on their journey towards healing from trauma and chronic adversity. At this point, the HUT process is fully accepted, and HUT participants begin to think, speak, and behave in accordance with HUT's expectations and standards.[18] After they have successfully engaged the journeying process and have learned what they are required to learn, they then return back to the community and are now given charge over their own *hut* as a HUT-endorsed leader. As HUT leaders, they are now responsible for preparing the next cohort of learners. Hence, HUT is representative of family and community and symbolizes the process of recognizing the unique experiences of perspective community members.

The goal of HUT is to advance the 7 Healing Centered Commitments (*Relationships, Culture, Agency, Aspirations, Restoration of Identity, Assets, Meaning*)[19] and the 7 Principles of Kwanzaa (*Umoja, Kujichagulia, Ujima, Ujamaa, Nia, Kuumba, Imani*)[20] by using a 5-week HUT. *Community Conversations* curriculum to engage people in conversations to move from trauma to healing.[15] These 7 commitments and 7 principles inform the activities, the development of the curriculum, and the grounding for interactions during the community conversations. The first cohort of HUT learners also contributed to development of the curriculum.

This model is focused on several paradigm shifts in trauma response service delivery: 1) a movement from "what happened to you?" to "what's right with you?"; 2) a recognition that community members are more than their trauma and/or community adversity; 3) a realization that trauma and community adversity is experienced collectively and not individually; and 4) a re-centering on the strengths and assets of identity and culture. The *HUT Community Conversations* curriculum is used to help participants:

- Identify how traumatic experiences can change the ways that a person deals with emotional responses.
- Identify the different types of **Safety** (physical, psychological, social, moral/spiritual) by drawing from examples from own community and life.
- Demonstrate an ability to identify the purposes as well as dangers of experiencing extreme **Emotional** responses.

- Cite personal, general, or community examples of some of the different types of **Losses** which are consequences of traumatic events or community adversity.
- Identify and discuss a **Future** goal for SELF or for a family/community member.

HUT's Administrative Structure

HUT leadership was intentional in designing the project's administrative structure. HUT's framework supports the critical partnership and ongoing collaboration between faith-based and other community leaders with behavioral health practitioners, to promote health equity of Black, Indigenous, and People of Color (BIPOC) and other individuals of marginalized communities. The critical collaboration of these partners requires an administrative structure that supports shifting the behavioral health care system within the greater scientific community from the proverbial driver's seat and into the passenger, to validating designation of the driver's seat to pastors, clergy, lay leaders, and other faith-based community leaders who are the trusted agents of healing in black and brown communities.[21]

Through systemic racism and oppression of policies and practices that create barriers to equitable access to treatment services and resources, the behavioral health care system has historically contributed to the disconnection of marginalized groups from systems of care that are intended to treat and heal individuals from those groups. Instead, houses of worship, along with their trusted agents of healing have a rich legacy of exclusive caregiving of the spirit (pneuma) and soul (psyche), to include emotional and mental caregiving, in communities of color.[22]

Understanding this dynamic, HUT's administrative structure utilizes a trauma responsive approach to repairing the longstanding dissonance experienced between the institutions and large systems and BIPOC communities, to support and advance critical collaboration and shared power, which is a core value of the S.E.L.F. Community Conversations model. The Safety, Emotions, Loss, Future (S.E.L.F) psychoeducational framework is a mechanism to integrate trauma-informed principles and practices into HUT's structure.

The S.E.L.F framework builds trauma awareness and shared knowledge and practices into HUT's administrative structure, using the best available NEAR (neurobiology, epigenetics, ACEs, and resilience) science, to facilitate HUT's objectives, which are to : (1) Build trauma-responsive and healing-centered networks and collaborations among community leaders; (2) prepare community leaders to facilitate 5-week S.E.L.F Community Conversations in their perspective communities; and (3) develop a network of community leaders that serve as HUT-S.E.L.F facilitators across Baltimore.

HUT Evaluation

The HUT evaluation was funded by Behavioral Health Systems Baltimore to: 1) assess the effectiveness of the HUT process; and 2) conduct a surveillance of the effects of the COVID-19 pandemic on community members to determine the relevance of the HUT process.

Structure

- ***What HUT capacities and resources will be developed and implemented?***
  - Build trauma informed networks and collaborations among faith-based and other community leaders
  - Adapt HUT curriculum for use in Baltimore communities

- HUT curriculum was codesigned by the 31 HUT participants.
- HUT participants meet the first Thursday of every month to report on HUT facilitation successes and opportunities for change and to provide transdisciplinary support and resources
- HUT facilitators have access to resources from the Behavioral Health Systems of Baltimore

Process

- **What HUT activities will be delivered and to whom?**
  - Recruit and prepare faith-based and other community leaders to participate as facilitators of a 5-week HUT Community Conversation in their perspective communities
  - Coach faith-based and other community leaders in the facilitation of a 5-week HUT Community Conversation in their perspective communities

- HUT Coordinators were able to identify, with community input, the first two cohorts of HUT facilitators.
  - There were 18 community leaders who participated in the first 5-week HUT Facilitation Training
    - 13 community faith leaders
    - 2 neighborhood leaders
    - 1 community youth leader
    - 1 immigration outreach community leader
    - 1 community men's movement leader
  - There were 13 community leaders who participated in the second 5-week HUT Facilitation Training
    - 8 community faith leaders
    - 1 community public school educational leader
    - 1 community youth and young adult organizer
    - 1 community mental health advocate
    - 1 community social entrepreneur

- Each participant was prepared to facilitate the HUT methods using SELF to ensure fidelity
    a. There were two iterations of the prepare-the-facilitator (PTF) training conducted via Zoom and over a period of 5 weeks. Each iteration had a morning session (10:00am to 12:00pm) and an evening session (7:00pm to 9:00pm).
- The 1st session was the orientation and had the following objectives:
    a. To learn about HUT's goals and guiding principles
    b. To learn to use the acronym, S.E.L.F. to help to define individual identity and pinpoint individual strengths and vulnerabilities.
    c. To begin the process of developing self-knowledge and knowledge of others in the group
- The 2nd session was focused on **safety (S)** and had the following objective:
    a. SELF begins with safety
    b. Introduce basic ideas about safety including the four kinds of safety (physical, psychological, social, and moral/spiritual)
    c. What do we mean by boundaries?
    d. What does it mean to trust?
- The 3rd session was focused on **emotions (E)** and had the following objectives:
    a. Develop ability to identify the emotions experienced in a situation.
    b. Develop ability for a person to match a situation with the appropriate emotion associated with that situation.
    c. Develop the ability to be able to communicate that emotion verbally to another person.
    d. To desensitize an individual to self-sharing experiences.
    e. To introduce the participants to the idea that emotions are important in determining what we value in a situation and that emotions should guide but not determine the way we think.
    f. To develop idea that emotion can be used to create different outcomes of an event, rather than to be automatically acted upon or automatically suppressed.
- The 4th session focused on **loss (L)** and had the following objectives:
    a. Define the broad category of loss
    b. To help people to learn the various ways that people can show signs of grief and unresolved grief
    c. Using SELF to work through loss
    d. Learning to let go
    e. Habits and resisting change
- The 5th session focused on **future (F)** and had the following objectives:
    a. Demonstrate how direction, vision and future planning are essential parts of change.
    b. Demonstrate that each of us can create our own future through the choices we make in the present
    c. Participate in problem-solving exercise using S.E.L.F.

Outcome

- **What are the immediate targets of change?**
  - Develop a network of faith-based and other community leaders that serve as HUT facilitators across Baltimore
  - Create a Baltimore-specific HUT community conversation curriculum

- A Baltimore-specific HUT community conversation curriculum with PowerPoints is now available for use by HUT facilitators
- There have been one successfully completed 5-week HUT Community Conversation facilitated by a HUT facilitator (from Cohort 1) with a group of men in the community
- There are currently three 5-week HUT Community Conversations in progress at different areas of Baltimore City; one is virtual, and one is in-person at a local faith based-organization
- Two more 5-week HUT Community Conversations are scheduled to start in August 2021 and one in September 2021

Evaluation of HUT Sessions

1. Participants rated the HUT sessions based on the following:
   a. Usefulness of the HUT program content for meeting each of the program's stated objectives **(Usefulness)**
   b. Quality of Facilitation **(Quality)**
   c. Facilitator's Teaching Ability **(Teaching Ability)**
   d. Facilitator's Knowledge and Expertise of HUT **(Knowledge/Expertise)**
   e. Adequacy of Zoom Platform **(Adequacy of Platform)**

RATING SCALE: 1 = LOW 3 = MEDIUM 5 = HIGH

	Usefulness	**Quality**	**Teaching Ability**	**Knowledge/ Expertise**	**Adequacy of Platform**
Mean	4.53	4.87	4.67	4.60	4.47

The lowest mean score was generated when asked about the adequacy of the Zoom platform. This was voiced during sessions with participants who were adjusting from in-person facilitation trainings to virtual trainings. However, participants seemed to be able to adjust to the virtual format by the third session.

Participants provided some overall comments about the HUT Sessions:

- *"The use of Zoom was good since we were in the midst of the COVID Pandemic. I do feel that follow-up training sessions would be more amazing if we could do them in person."*
- *"The training sessions enabled great discussion and presentation of differing views without conflict or controversy. Sharing was welcomed and people were valued."*
- *"This class and the information shared, was most useful for my Ministry and the community. The facilitator and his support team was Awesome and easy to talk to, answer questions, very respected to everyone and was mindful of people feeling and emotions."*
- *"A very welcoming, patient, and personally accepting process. Well done!!"*

- *"This Cohort Changed my Life! I learned so much, about trauma and how to help people have a conversation about it to move forward and grow!"*

2. Knowledge and practices pre-and-post-HUT Sessions were assessed on a scale of 1 to 5, with "1" representing low knowledge/skills and "5" representing high knowledge/skills. Participants reported an increase in their knowledge and skills during all ten sessions.

SESSION 1: ORIENTATION

During Session 1 *(see below)*, participants significantly increased their knowledge/skills about how to use the Feeling Wheel, HUT's missions, goals, objectives, and approaches, NEAR (Neurobiology, Epigenetics, ACEs, and Resilience), and SELF (Safety, Emotions, Loss, Future)—which had the greatest mean increases. It must be noted here that the use of the feeling wheel, knowledge about HUT's mission, goals, objectives and approaches, and knowledge about NEAR and SELF were the lowest mean starting point when compared to all other topics across all sessions. Most importantly, knowledge about NEAR was the lowest mean endpoint *(4.00)* relative to the other topical areas across all sessions. This demonstrates that more efforts and strategies will be required to increase the knowledge of participants regarding neurobiology, epigenetics, ACEs, and resilience.

RATING SCALE: 1 = LOW 3 = MEDIUM 5 = HIGH

BEFORE HUT SESSION	SELF-ASSESSMENT OF KNOWLEDGE AND SKILLS RELATED TO:	AFTER HUT SESSION
MEAN		**MEAN**
2.42	Use of Feeling Wheel	4.25
3.25	Brave space vs safe space	4.50
3.75	Debate vs dialogue	4.42
2.42	HUT's mission, goals, objectives, approaches	4.67
3.33	Being trauma-responsive and healing centered	4.50
2.75	NEAR (Neurobiology, Epigenetics, ACEs, and Resilience)	4.00
2.67	S.E.L.F.	4.25

SESSION 2: SAFETY

During Session 2 *(see below)*, participants reported that their knowledge and skills increased regarding the different types of safety (e.g., physical, psychological, social, moral/spiritual), particularly what it would mean for their work in the community, and how it informed their decision-making processes. The greatest knowledge/skill mean increase was in *social safety (1.25)*. These results show that participants were able to develop their self-awareness related to the key ingredients to being safe in community.

RATING SCALE: 1 = LOW 3 = MEDIUM 5 = HIGH

BEFORE HUT SESSION	SELF-ASSESSMENT OF KNOWLEDGE AND SKILLS RELATED TO:	AFTER HUT SESSION
MEAN		**MEAN**
3.50	Physical Safety	4.67
3.67	Psychological Safety	4.75
3.33	Social Safety	4.58
4.00	Moral/Spiritual Safety	5.00
3.42	Key ingredients to being safe	4.75

SESSION 3: EMOTIONS

During Session 3 *(see below)*, participants reported that their knowledge and skills increased regarding 'emotions' and how important emotions are in determining what we value in a situation by guiding but not determining the way a person thinks. The greatest knowledge/skill mean increase was in *being able to identify different words for the primary emotions (1.50)*. These results show that participants were able to develop their self-awareness related to being able to identify the emotions experienced in a situation.

RATING SCALE: 1 = LOW 3 = MEDIUM 5 = HIGH

Before HUT Session	Self-assessment of Knowledge and Skills Related to:	After HUT Session
Mean		**Mean**
3.25	Difference between feelings and emotions	4.58
3.33	Range of emotions	4.75
3.17	Different words for the primary emotions (mad, glad, sad, scared, ashamed)	4.67
3.17	Where in body different emotions are felt	4.50

SESSION 4: LOSS

During Session 4 *(see below)*, participants reported that their knowledge and skills increased regarding the broad category of loss and how to use SELF to work through loss and be able to "let go." The greatest knowledge/skill mean increase was *knowing the various ways that people can show signs of grief and unresolved grief (1.17)*. These results show that participants were able to develop their self-awareness related to loss associated with traumatic stress and trauma.

RATING SCALE: 1 = LOW 3 = MEDIUM 5 = HIGH

Before HUT Session	Self-assessment of Knowledge and Skills Related to:	After HUT Session
Mean		**Mean**
3.83	The definition of loss	4.67
3.67	Feelings associated with losses	4.67
3.83	What happens when we do not grieve	4.67
3.50	The many faces of loss	4.67
3.67	How to work through loss	4.67

SESSION 5: FUTURE

During Session 5 *(see below)*, participants reported that their knowledge and skills increased regarding how direction, vision and future planning are essential parts of change. The greatest knowledge/skill mean increase was *knowing how to define 'future' (1.50)*. These results show that participants were able to develop their self-awareness related to creating a future through present choices.

RATING SCALE: 1 = LOW 3 = MEDIUM 5 = HIGH

BEFORE HUT SESSION	SELF-ASSESSMENT OF KNOWLEDGE AND SKILLS RELATED TO:	AFTER HUT SESSION
MEAN		**MEAN**
3.17	How to define future	4.67
3.33	How does trauma affect future	4.75
3.58	Developing vision for future	4.83
3.33	Problem-solving using S.E.L.F.	4.75

3. *Participant Feedback:* Through our appreciative inquiry process as well as our closing evaluation, we were able to learn about the impact the HUT facilitation training had on the community leaders:

Thinking about what you were doing in your organization/community prior to attending the HUT SESSIONS, what will you be doing differently as a result of the HUT SESSIONS?

- *"I have higher sense of awareness and the importance of dialogue. I will be open to the principle. and facts learned in serving - observation, dialogue and referrals."*
- *"Retooling lessons learned in the past and new HUT terminology, not allowing anything or one to stop me from trying to help the little green man get across the street. I will do my best to seek win wins and healthy outcomes!!!"*
- *"utilizing the feeling wheel in a variety of settings and training opportunities; seeking out areas and groups for increased discussion and dialogue; seeking to enhance equitable solutions to workplace issues and concerns for staff rendering services and persons receiving services"*
- *"Encouraging, eye opening to the realness of Mental Health and understanding the important of just having a good conversation and listen to people"*
- *"Listening, using slides and tools to elicit responses and open up dialogue."*

You have engaged many practices during the HUT SESSIONS, what is one new practice you have adopted/implemented as a result of this process?

- *"While I have not been able to implement, the content was excellent. Feel that I will re-read and internalize in my work. Current reporting show increase awareness and need - during the pandemic and as we emerge from the pandemic."*
- *"I will forever be mindful of my "brave space", tuning out the negative talks and things people may try to say to me, even when they say they are just joking."*
- *"Implemented use of the feeling wheel in training sessions; Utilized feeling wheel to provide broader and more descriptive labeling"*
- *"Centering on feelings and emotions before reacting."*

During your lifetime, you may have participated in many conversations about trauma, however, what about this process and sessions has been different than other trauma work you have done?

- *"The intentional inclusion of the guiding principles before starting each session recognizes the need for safe space, the recognition that conversation reveals vulnerabilities, insecurities and a desire for understanding. I appreciate that paperwork was not before us; instead, revelation was allowed to evolved."*
- *"It was engaging, enlightning and provided new approaches to previous lessons I had learned about trauma. The information, both written and verbal, was presented in an easy to follow and adaptive format."*
- *"More insight and understanding"*
- *"Provides greater opportunity for people to identify and describe impacts of trauma that values and validates their feelings without needing to place blame or accept the role of the victim"*
- *"The Falcilitators were diffirence What I like the most was this training was not a lecture like I have been to in the past. People communication and sharing personal story make learning easy"*
- *The safe space provided made it easier to recognize and identify the many traumas we have suffered"*

When thinking, about yourself, your community, and/or your organization, what do you feel were the strengths & growth-opportunities of the HUT SESSIONS?

- *"Relationship building - new and sustainable, "Listening and understanding personal needs"*
- *"The strength for this training is that although each participant had a different background, we each shared similar challenges in reaching those who may be dealing with trauma. It also afforded us opportunities to tailor the training to meet the needs of our audiences. A growth opportunity might be to have the cohorts come together sooner rather than at the end."*
- *"The purposeful planning and layout of the curriculum and the small group training sessions"*
- *"The Strength and Growth of the Hut sessions was giving us and encourage us to train others. Also proving a support system to help us facilitate our own class."*
- *"Strength of the program was the safe space afforded to be open to dialogue. Growth opportunity was opened up by the use of brave space to move dialogue forward.*

What else would you like us to know about how this process was for you?

- *"I appreciated all of the guidance offered. I appreciated that folks could share where they were (feeling) on a particular session - low energy, high energy and how they would need the support of the group."*
- *"It gave me more insights on topics such as "safety," and in particular, debate vs dialogue whereby I. gain a refresher in "listening to understand and find meaning; Revealing assumptions for reevaluation; Reexamining all positions; Admitting that others' thinking can improve one's own; Searching for strengths and value in others' positions; Discovering new opinions, not seeking closure as all too often so many people do and think they are dialoging, lacking concern and consisderation for the one they call the debater." In these instances, no one win and the drama and trauma continues. The little green man is still left trying to get across the street because those that could help him were too engaged in debate vs dialaogue about the support he needed."*
- *"I appreciated the investment of the trainer's time and expertise; I also appreciated the developer's discussion regarding curriculum fluidity, pushing the group to consider this as an evolving process of improvement to engage communities with the ability to navigate various levels of position, authority and reach"*
- *"I would like to shadow another team and see their process"*
- *"Helped me understand how trauma molds your life and limits growth until you find a safe place to identify the issues and grow."*

Healing Us Together

You access a sample of HUT and hear the impact of the HUT sessions from participants at **https://www.youtube.com/watch?v=eTuU61s_-PQ&feature=youtu.be**. Here is the link to an article about HUT: **Baltimore's Healing Us Together (HUT): A Collaborative Partnership Driven by Community**

HUT COVID-19 WELL-BEING STUDY

The HUT COVID-19 Well Being Study was a pilot study that assessed the effects of the COVID-19 pandemic on community members in a population of 368 Baltimore City residents. Data collection took place from April 2021 to June 2021. All persons living in Baltimore City were invited to participate in the study. Advertisements, flyers, information sheets, notices, internet postings and email were used to recruit participants. The participants were assessed for eligibility and screened in using the following inclusion criteria: (1) a resident of Baltimore City on February 1, 2020; 2) currently live in Baltimore City; 3) aged 18 years or older; and 4) consented to participate in study. Those who failed to meet any of the inclusion criteria were screened out of the study. One thousand one hundred and twenty-five (1,125) participants responded to the recruitment marketing and 369 were eligible to participate and/or completed the survey. The study was approved by the Internal Review Board at the University and the eligible participants e-signed the informed consent to participate in the study. All study participants completed an online questionnaire that was adapted and created from questions on demographic, socioeconomic, and other psycho-bio-social-spiritual characteristics and included the following validated scales:

a. **PTSD Checklist forDSM-5 (PCL-5) - s**elf-report measure that assesses the 20 *DSM-5* symptoms of PTSD.[23]
b. **Epidemic – Pandemic Impacts Inventory (EPII)**[24] **and the EPII Racial/Ethnic Discrimination Addendum**.[25] This is a newly developed measure designed to learn about the impact of the coronavirus disease pandemic and future epidemics and pandemics on various domains of personal and family life and in the context of race/ethnic discrimination and racism.
c. **Sense of Community Index (SCI)** is one of the most commonly used measures of Psychological Sense of Community (PSOC).[26]
d. **CES-D Depression Screen- Short Form** is a widely used self-report measure of depression symptomatology.[27]
e. **The Pittsburgh Sleep Quality Index (PSQI)** is a self-rated ***questionnaire*** which assesses ***sleep quality*** and disturbances over a 1-month time interval.[28]
f. **Perceived Stress Scale (PSS-4) is** intended to make comparisons of subjects' perceived stress related to current, objective events.[29]
g. **Loneliness Brief Form** is a *short* scale for measuring *loneliness.*[30]
h. **Brief Resilient Coping Scale** is designed to capture tendencies to cope with stress in a highly adaptive manner.[31]

Qualtrics, a comprehensive survey software tool, was used to develop, collect, and manage the online survey.[32] All the analyses for the study were performed using Stata version 14.[33]

RESULTS

Bivariate Analyses

Rao-Scott chi-square and Student's t-tests statistics are used to examine differences in characteristics between Baltimore City residents experiencing PTSD symptoms and those not experiencing PTSD symptoms as well as determine any associations between gender identity, race, age, marital status, educational status, income employment position, sleep status, perceived stress, COVID-19 racial stressors, spirituality-coping, resilient-coping, loneliness, sense or community and PTSD. Table 1 displays the distribution of characteristics of Baltimore City residents by PTSD status. In this sample of Baltimore City residents, fifty-six percent (56%) of respondents had a total symptom severity score in the range to be diagnosed with PTSD. Baltimore City residents who were

experiencing PTSD symptoms were more likely to report having a high school degree (91.8 vs or 83.3) and an income at or above $50,000 (76.7 vs 65.4) relative to those with those who were not experiencing PTSD symptoms. Reports of perceived stress (7.9±2.2 vs 6.7±2.8) and COVID-19 racial stressors (7.5±3.7 vs 6.5±3.8) were higher for those Baltimore City residents who were experiencing PTSD symptoms than those who were not. Baltimore City residents who were experiencing PTSD symptoms had lower reports of spirituality-coping (36.0 vs 48.8) and resilient coping (2.9 vs 15.4) than those with no reported PTSD symptoms. Reports of feelings of loneliness was higher among those who reported experiencing PTSD symptoms (47.6) than those who did not (37.0). Baltimore City residents who were experiencing PTSD symptoms had a lower sense of community (6.4±2.5) than those who were not experiencing PTSD symptoms (7.8±2.5). No significant differences were observed between Baltimore City residents who were experiencing PTSD symptoms and those with no PTSD symptoms with respect to gender identity, race, age, marital status, employment position, and sleep status.

Table 1. Distribution of Characteristics of Baltimore City Residents for the Total Sample and by PTSD[a] Status

Characteristics	Total (n^b = 368)	PTSD[a] (n^b = 206) 56.0%	No PTSD[a] (n^b = 162) 44.0%
Demographic			
Female	56.9	55.8	58.0
Race			
Black	49.3	52.4	45.1
Hispanic	10.6	9.7	11.7
White	39.3	37.9	41.4
Age (years), m[c] ±SE[d]	30.6±.5.6	30.1±3.7	31.3±7.4
[Range]	*19-72*	*22-40*	*19-72*
Married, %	70.5	73.8	66.1
Socioeconomic			
High school degree or higher, %	88.1	91.8	83.3*
Income at or above $50,000, %	71.5	76.7	65.4*
Employed, %	83.5	83.0	84.0
Sleep Status			
Poor sleep quality, %	73.1	70.4	76.5
Stress			
Perceived stress, m[c]±SE[d]	7.4±2.5	7.9±2.2	6.7±2.8*
[Range]	*0-15*	*2-15*	*0-14*
COVID-19[e] racial stressors, m[c]±SE[d]	7.0±3.8	7.5±3.7	6.5±3.8*
[Range]	*0-15*	*0-15*	*0-15*
Coping			
High spirituality-coping, %	41.6	36.0	48.8*
High resilient coping, %	8.42	2.9	15.4*
Loneliness			
High feelings of loneliness, %	42.9	47.6	37.0*
Sense of Community Index			
Sense of community	7.0±2.6	6.4±2.5	7.8±2.5*
[Range]	*1-12*	*1-12*	*2-12*

Note: *p <.05
[a]PTSD = posttraumatic stress disorder
[b]n = sample
[c]*m* = Mean
[d]*SE* = Standard error
[e]COVID-19 = coronavirus 2019

Table 2 displays the distribution of physical health conditions, COVID-19 vaccination status, and mental health conditions of Baltimore City residents by PTSD status. Baltimore City residents who were experiencing PTSD symptoms were less likely to indicate a diagnosis of obesity (35.0 vs 61.1) and more likely to indicate a diagnosis of diabetes (37.9 vs 21.0) and stroke (26.2 vs 13.0) from a doctor or health professional compared to those with no PTSD symptoms. Reports of depressive symptoms was higher among those who reported experiencing PTSD symptoms (70.9) than those who reported no PTSD symptoms (60.5). No significant differences were observed between Baltimore City residents who were experiencing PTSD symptoms and those with no PTSD symptoms with respect to hypertension, asthma, cardiovascular disease, COVID-19, planning not to take the COVID-19 vaccine, taking only the first dose of COVID-19 vaccine, and taking the first and second dose of the COVID-19 vaccine.

Table 2. Distribution of Physical Health Conditions, COVID-19[a] Vaccination Status, and Mental Health Conditions of Baltimore City Residents for the Total Sample and by PTSD[b] Status

	Total (*n* = 368)	PTSD[b] (*n* = 206) 56.0%	No PTSD[b] (*n* = 162) 44.0%
Physical Health Conditions			
Obesity, %	46.5	35.0	61.1*
Hypertension, %	48.1	47.6	48.8
Diabetes, %	30.4	37.9	21.0*
Asthma, %	25.8	25.7	25.9
Stroke, %	20.3	26.2	13.0*
Cardiovascular Disease, %	24.5	21.4	28.4
COVID-19[a], %	17.9	19.4	16.1
COVID-19[a] Vaccination			
Plan not to take vaccine	57.4	54.2	61.1
1st dose only, %	30.7	27.7	34.6
1st and 2nd dose, %	30.2	34.4	24.7
Mental Health Conditions			
Depressive symptoms, %	66.3	70.9	60.5*

Note: *p <.05
[a]COVID-19 = coronavirus 2019
[b]PTSD = posttraumatic stress disorder

Multivariate Analyses

The association between sense of community, depression, COVID-19 racial stressors, resilient coping and PTSD symptoms among Baltimore City residents is presented in Table 3. The odds ratios (OR) and corresponding 95% confidence intervals (CIs) were derived from logistic regression analyses. The odds ratio of PTSD symptoms with the association of sense of community, depression, COVID-19 racial stressors, resilient coping and PTSD symptoms were determined by the analyses and adjusted by covariates (race, age, gender identity, marital status, educational status, income, employment status). Four models were specified. Model 1 examined the relationship between sense of community and PTSD symptoms, adjusting for covariates. Model 2 examined the relationship between depression and PTSD symptoms, adjusting for covariates. Model 3 examined the relationship between COVID-19 racial stressors and PTSD symptoms, adjusting for covariates. Model 4 examined the relationship between resilient coping and PTSD symptoms, adjusting for covariates. In the first Model, adjusted for covariates, Baltimore City residents with a higher sense of community was associated with lower odds of experiencing PTSD

symptoms (OR: .79, 95% CI: .72-.87) than those with a lower sense of community. In Model 2, which was additionally adjusted for covariates, Baltimore City residents who experienced depressive symptoms was associated with higher odds of experiencing PTSD symptoms (OR: 1.74, 95% CI: 1.09-2.71) than those who did not experience depressive symptoms. In Model 3, after adjusting for covariates, Baltimore City residents who experienced higher COVID-19 racial stressors was associated with higher odds of experiencing PTSD symptoms (OR: 1.07, 95% CI: 1.02-1.14) than those who experienced lower COVID-19 racial stressors. In Model 4, after adjusting for covariates, Baltimore City residents with high resilient coping was associated with lower odds of experiencing PTSD symptoms (OR: .81, 95% CI: .68-.96) than those with low resilient coping.

Table 3. Association Between Sense of Community, Depression, COVID-19 Racial Stress, Resilient Coping and PTSD[a] Among Baltimore City Residents (n = 368)

Variable	Model 1 OR[b] (95% CI[c])	Model 2 OR[b] (95% CI[c])	Model 3 OR[b] (95% CI[c])	Model 4 OR[b] (95% CI[c])
Sense of Community[d]	**.79 (.72-.87)**			
Depressive Symptoms[d]		**1.74 (1.09-2.71)**		
COVID-19 Racial Stressors[d]			**1.07 (1.02-1.14)**	
Resilient Coping[d]				**.81 (.68-.96)**

Notes: Bolded parameter estimates indicate those that are statistically significant *($p < 0.05$).*
[a]PTSD = posttraumatic stress disorder
[b]OR = odds ratio
[c]CI = confidence interval.
[d]Controlling for race, age, gender identity, marital status, educational status, income, employment status

DISCUSSION

The purpose of this evaluation was to assess the effectiveness of the HUT process and to conduct a surveillance of the effects of the COVID-19 pandemic on community members to determine the relevance of the HUT process. The structure of the HUT project was realized through the HUT capacities and resources, using the SELF process, that was developed and implemented. This included building trauma informed networks and collaborations among faith-based and other community leaders and adapting the HUT curriculum for use in Baltimore communities. In addition, the process of HUT was determined by the activities. HUT was successful in recruiting, preparing, and coaching faith-based and other community leaders to participate as facilitators of a 5-week HUT Community Conversation in their perspective communities. Most importantly, the outcome of the HUT project was the co-development of a Baltimore-specific HUT community conversation curriculum and the production of a network of faith-based and other community leaders that serve as HUT facilitators across Baltimore.

Overall, the HUT project garnished positive results and great reviews from the participants. HUT participants rated the HUT sessions very high in the five areas assessed: 1) usefulness of the HUT program content for meeting each of the program's stated objectives; 2) quality of the HUT facilitation; 3) teaching ability of HUT facilitators; 4) knowledge and expertise of HUT facilitators; and 5) the adequacy of the ZOOM platform. Additionally, participants reported that their knowledge and skills increased after each session. Some significant increases in knowledge/skills were made regarding: Session 1 - how to use the Feeling Wheel, HUT's missions, goals, objectives and approaches, NEAR (Neurobiology, Epigenetics, ACEs, and Resilience), and SELF (Safety, Emotions, Loss, Future); Session 2 - social safety; Session 3 - being able to identify different words for the primary emotions; Session 4 - knowing the various ways that people can show signs of grief and unresolved grief; and Session 5 - knowing how to define 'future'.

Healing Us Together

The HUT COVID-19 Well Being Study demonstrated that PTSD symptoms influence Baltimore City residents regardless of gender identity, race, age, marital status, employment position, and sleep status. This provides some support for the need to address the causes of PTSD symptoms in the Baltimore City community. There were significant differences in educational status and income. This is important information to note because PTSD symptoms were greater for those with a high school degree or higher and income at or above $50,000. It is oftentimes presumed that PTSD symptoms are an issue solely for those who are at the lowest end of the SES stratum. However, these results show that persons who have high SES may also be at risk for PTSD symptoms. Being able to utilize coping techniques was shown to influence PTSD symptoms. Participants with spirituality-coping and resilient-coping were less apt to have PTSD symptoms. This demonstrates the need for Baltimore City residents to increase their learning and skills regarding varied coping techniques—which could reduce their chance of experiencing PTSD symptoms. Also, these results revealed that loneliness and low sense of community places Baltimore City residents more at risk for PTSD symptoms. When a person does not feel connected to their community there is an increased chance that they might feel lonely. There must be more consideration for Baltimore City residents' feelings about their community in the goal of becoming more trauma responsive.

In determining the relevance of the HUT process, viewing some of the results of this study through the lens of SELF proved to be beneficial. For instance, if we focus on the **"S"** we would be assessing for how people attain safety in self, relationships, and environment. One way to do this is through a connection to community. This study revealed that a high sense of community was associated with low risk for PTSD symptoms. That would mean that participants' exposure to ways to increase their feelings of safety (physical, psychological, social, spiritual/moral) through a HUT community conversation process could possibly increase their sense of community while reducing their risk for PTSD symptoms.

Now moving to the **"E"** we assess for levels of affect and modulating affect in response to memories, persons, events related to emotions. In this study, it was shown that depressive symptoms were associated with higher risk for PTSD symptoms. Depression is a mood disorder and a highly prevalent emotion dysregulation disorder that affects the way a person feels about life in general. Learning how to regulate emotions during a HUT session have the potential to assist participants with their depression and ultimately may reduce risk for PTSD symptoms.

When considering the **"L"**, we concentrate on feeling grief and dealing with losses and change. The study demonstrated that greater COVID-19 racial stressors was associated with higher risk for PTSD symptoms. The *adverse cultural experiences*—defined as chronic exposures to historical and contemporary systemic racial injustices targeted to a specific ethnic group is associated with PTSD symptoms. The adverse cultural experiences manifest as racial injustices' **a**ffect (prejudice), **b**ehavior (discrimination, microaggressions), and **c**ognition (stereotype). Stereotypes (cognition) are used to rationalize prejudice (beliefs) leading to discrimination (behavior) creating a racialized social system that is socially structured based on racial categories to benefit one group over another. This leads to a loss of humanity and feelings of self-blame and self-hate which increases risk for PTSD symptoms. HUT's model provides some inoculation to adverse cultural experiences through the use of characteristics of the African rites of passage model as well as its advancement of the 7 Healing Centered Commitments (*Relationships, Culture, Agency, Aspirations, Restoration of Identity, Assets, Meaning*)[19] and the 7 Principles of Kwanzaa (*Umoja, Kujichagulia, Ujima, Ujamaa, Nia, Kuumba, Imani*).[20] Also, the HUT sessions about loss allows participants to learn how to work through their loss and move towards 'letting go' in a healthy way. The skills and knowledge learned in this area allows participants to learn new habits that make it easier to adapt to change which has great potential for reducing risk for PTSD symptoms.

The **"F"** highlights the vision for the future while affording participants an opportunity to try out new roles and ways of relating and behaving as an overcomer. Being resilient and able to cope well assists a person with creating a future through present rather than past choices. This study showed that high resilient coping was associated with lower risk for PTSD symptoms. The HUT session that discusses future, helps participants to build their capacity

for resilience. The *future* session incorporates what was learned in the prior sessions on *safety, emotions, and loss*. A problem-solving exercise using the S.E.L.F. helps participants in building a skillset for making meaning out of highly stressful or difficult experiences. Another area of the HUT project that builds upon this area and increases participant's resilient coping is the coaching process. Coaching is available to participants throughout the duration of their commitment to the HUT project. Coaches are available to guide HUT facilitators through the curriculum, point to resources, and assist with ongoing booster training.

CONCLUSIONS

Findings from this evaluation demonstrated that HUT is a viable tool to deliver stress and trauma prevention to Baltimore City residents. The HUT process has been able to increase the knowledge/skills of participants in several areas that allow them to have conversations about stress and trauma in their communities. However, coaching strategies will need to include strengthening of participants knowledge of S.E.L.F. and NEAR (neurobiology, epigenetics, ACEs, and resilience). Additionally, trauma-informed practitioners should be alerted to the role that HUT may play in reducing depressive symptoms and the racial stress associated with COVID-19 and increase sense of community and resilient coping among Baltimore City residents—which has the potential to reduce PTSD symptoms in Baltimore City.

This is project that should be working on strategies to increase visibility, sustainability, and capacity. In so doing, this may provide Baltimore City with a community mitigation intervention that may minimize the psychosocial effects of trauma and stress. This evaluation underscores the need for further investigation of the HUT process on reduction of PTSD symptoms. A full-scale study to clarify the effects of HUT in PTSD outcomes for Baltimore City residents is warranted.

References

1. McCarthy B, Carter A, Jansson M, Benoit C, Finnagan R. (2018). Poverty, material hardship, and mental health among workers in three front-line service occupations. *Journal of Poverty*, 22(4), 334-354.
2. Brooks, S.K., Webster, R.K., Smithy, L.E., Woodland, L., Wessely, S., Greenberg, N., & Ruubin, G.J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet (Rapid Review)*, 395 (10227), 912-920.
3. COVID Tracking Project (2021). The COVID Racial Data Tracker: Maryland cases and deaths by race ethnicity. https://covidtracking.com/race/dashboard
4. Baltimore City Health Department. (2017). Baltimore City 2017 Neighborhood Health Profile. https://health.baltimorecity.gov/sites/default/files/NHP%202017%20-%2000%20Baltimore%20City%20(overall)%20(rev%206-22-17).pdf
5. Baltimore City Health Department (2021). Baltimore City COVID-19 Dashboard: Disparities. https://coronavirus.baltimorecity.gov
6. LaVeist Thomas A., Thorpe Roland J. Jr., Pierre Geraldine, Mance GiShawn A. and Williams David R. 2014. “The Relationships among Vigilant Coping Style, Race, and Depression.” *Journal of Social Issues* 70(2):241–55. doi: 10.1111/josi.12058.
7. Archibald, P. (2021-In Press). Factors influencing the relationship between work-related stress and posttraumatic stress disorder among working Black adults in the United States. *Yale Journal of Biology and Medicine*.
8. Centers for Disease Control and Prevention (CDC). (2019). Health, United States, 2018: Data Finder Retrieved from https://www.cdc.gov/nchs/hus/contents2018.htm?
9. Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., Gupta, A., Kelaher, M., … Gee, G. (2015). Racism as a Determinant of Health: A Systematic Review and Meta-Analysis. *PloS one*, *10*(9), e0138511. doi:10.1371/journal.pone.0138511
10. Cronholm, P.F., Forke, C.M, Wade, R., Bair-Merritt, M.H., Davis, M., Harkins-Schwarz, M., Pachter, L.M., Fein, J.A., (2015). Adverse childhood experiences expanding the concept of adversity. *American Journal of Preventive Medicine*, 49(3), 354-361.
11. Ellis, W.R. & Dietz, W.H. (2017). A new framework for addressing adverse childhood and community experiences: The building community resilience model. *Academics Pediatrics*, 17(7), S86-S93. DOI: https://doi.org/10.1016/j.acap.2016.12.011 Retrieved from https://www.academicpedsjnl.net/article/S1876-2859(16)30552-6/pdf
12. Pinderhughes H, Davis R, Williams M . (2015). Adverse Community Experiences and Resilience: A Framework for Addressing and Preventing Community Trauma. Prevention Institute, Oakland CA. Retrieved from https://www.preventioninstitute.org/sites/default/files/publications/Adverse%20Community%20Experiences%20and%20Resilience.pdf
13. DeGruy, J. (2005). *Post traumatic slave syndrome: America’s legacy of enduring injury and healing*. Portland, OR: Joy DeGruy Publications Inc.
14. Qualls N, Levitt A, Kanade N, Wright-Jegede N, Dopson S, Biggerstaff M, Reed, C, Amra Uzicanin A. (2017). Community mitigation guidelines to prevent pandemic influenza—United States, 2017. *Morbidity and Mortality Weekly Report (MMWR), Recommendations and Reports*, 66(1), 1-34. doi: http://dx.doi.org/10.15585/mmwr.rr6601a1
15. Bloom, S.L., Foderaro, J.F., & Ryan, R. (2010). SELF: A trauma-informed psychoeducational group curriculum. http://sanctuaryweb.com/Products/SELFGroupTraining.aspx
16. Gennep, A. v. (1960). The rites of passage. Vizedom, MB & Caffee, GL, Translators. University of Chicago Press.
17. Yalom, I. D. (2005). Theory and practice of group psychopathology (5th ed.). Basic Books.

18. Turner, V. (1987). Betwixt and between: The liminal period in rites of passage. In L. Mahdi, S. Foster, & M. Little (Eds.), Betwixt & between: Patterns of masculine and feminine initiation (pp. 3-19). Open Court.
19. Ginwright, S. (2018, May 31). The future of healing: Shifting from trauma informed care to healing centered engagement. Retrieved from https://medium.com/@ginwright/the-future-of-healingshifting-from-trauma-informed-care-to-healing-centered-engagement-634f557ce69c
20. Karenga, M. (1988). *The African American holiday of Kwanzaa. A celebration of family, community and culture.* Los Angeles: Univ. of Sankore.
21. Blank, MB, Mahmood, M., Michael B., Fox, JC, Guterbock, T. (2002). Alternative mental health services: The role of the Black church in the South. *American Journal of Public Health*, 92, 1668-1672.
22. Robinson, C. G. (2019). The Critical Need for Collaboration. In *Critical Collaboration: Pastors and mental health professionals as partners in care to urban African American communities*. Archway Publishing.
23. Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). The PTSD Checklist for DSM-5 (PCL-5) – Standard [Measurement instrument]. shttps://www.ptsd.va.gov/professional/assessment/documents/PCL5_Standard_form.PDF
24. Grasso, D.J., Briggs-Gowan, M.J., Ford, J.D., & Carter, A.S. (2020). *The Epidemic – Pandemic Impacts Inventory (EPII).* University of Connecticut.
25. Yang, A., Ablorh, T., Hall, A., Roemer, L., Carter, A.S., Ford, J.D., Briggs-Gowan, M.J., & Grasso, D.J., (2020) *The Epidemic – Pandemic Impacts Inventory (EPII) Racial/Ethnic Discrimination Addendum.* University of Massachusetts Boston.
26. Perkins DD, Florin P, Rich RC, Wandersman A. (1990). Participation and the social and physical environment of residential blocks: Crime and community contexts. *American Journal of Community Psychology*, 18(1):83–115.
27. Mohebbi M, Nguyen V, McNeil JJ, et al. Psychometric properties of a short form of the Center for Epidemiologic Studies Depression (CES-D-10) scale for screening depressive symptoms in healthy community dwelling older adults. *Gen Hosp Psychiatry*. 2018;51:118-125.
28. Buysse, D.J., Reynolds III, C.F., Monk, T.H., Berman, S.R., & Kupfer, D.J. (1989). The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Journal of Psychiatric Research, 28*(2), 193-213.
29. Herrero, J., and Meneses, J. (2006). Short Web-based versions of the perceived stress (PSS) and Center for Epidemiological studies-Depression (CESD) Scales: a comparison to pencil and paper responses among internet users. *Comput. Hum. Behav.* 22, 830–846.
30. Hughes ME, Waite LJ, Hawkley LC, Cacioppo JT. A Short scale for measuring loneliness in large surveys: Results from two population-based studies. *Res Aging*. 2004;26(6):655-672.
31. Sinclair, V. G., & Wallston, K.A. (2004). The development and psychometric evaluation of the Brief Resilient Coping Scale. *Assessment*, 11 (1), 94-101
32. Qualtrics (2020). Online survey software. https://www.qualtrics.com/core-xm/survey-software/
33. StataCorp. Stata Statistical Software: Release 14. College Station, TX: StataCorp LP; 2015.