Mental Health & Prevention 13 (2019) 68–74

Contents lists available at ScienceDirect

Mental Health & Prevention

journal homepage: www.elsevier.com/locate/mhp

# Effectiveness of mental health first aid training for underserved Latinx and Asian American immigrant communities

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ARTICLE INFO

*Keywords:*
Mental Health First Aid
Immigrants
Mental illness
Community engagement

ABSTRACT

*Introduction:* Community collaboration is essential to achieving integrated care and improving mental health among immigrants in the United States This uncontrolled pilot study evaluated the effectiveness of the Mental Health First Aid (MHFA) USA training program when administrated to advocates who serve Latinx and Asian American immigrant communities, with the goal of creating frontline workers to help immigrants with mental health challenges.

*Methods:* A total of 89 participants completed the 8-h MHFA training program. Assessments were conducted before and after the program to measure the impact of MHFA training. Both qualitative and quantitative assessments were used, including the Mental Health Literacy Scale and the Opening Minds Scale for Healthcare Providers.

*Results:* The findings revealed a significant improvement in participants' mental health literacy and anti-stigma levels, following the training. In addition, participants expressed more positive attitudes toward people with mental illness and held less-extreme views of social distance from them.

*Conclusion:* Through this interactive training, participants built new knowledge, skills, and confidence to apply to their work of assisting community members who may be at risk of developing mental health or substance abuse problems.

## 1. Introduction

In any given year, one in five adults experiences a mental illness in the United States (National Alliance of Mental Illness, 2016). The costs of mental illness to individuals, families, and communities are substantial and exceed those of other chronic diseases, such as diabetes and hypertension, in terms of personal distress, lost productivity, interpersonal problems, and suicide (Substance Abuse and Mental Health Services Administration, 2013). Worldwide, depression is ranked second to heart disease in jeopardizing quality of life (World Health Organization, 2008).

### 1.1. Impact of mental illness on immigrant communities

Tremendous racial and ethnic disparities with regard to the prevalence of mental illness and service use have been well documented in the United States (Derr, 2016; Institute of Medicine, 2009). Racial and ethnic minority groups encounter more challenges associated with their daily stress, anxiety, and depression. Further, these minority groups are disproportionately likely to lack the means to seek help and hold strong negative attitudes toward psychiatric illnesses, which leads to under-recognition and under-treatment of mental illnesses (Yeung, 2017). In particular, immigrants and refugees in the United States suffer from migratory grief and acculturative stress but face both practical and cultural barriers to mental health care, including stereotypes about their socially constructed racial and ethnic groups (Song, Kaplan, Tol, Subica, & Jong, 2015).

The course of immigration to the United States evolves over time and continuously changes in accordance with the current political climate in immigrants' countries of origin. Immigration remains a controversial issue in the U.S., and beliefs about who should be allowed to immigrate create division among various ethnic communities. According to a 2014 Gallup poll, approximately 25–42% of adults had a negative view of immigration to the U.S. (Gallup, 2014). Such anti-immigration sentiments are derived from concerns that immigrants are a burden to U.S. society. Often, it is believed that immigrants could take

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https://doi.org/10.1016/j.mhp.2018.12.003
Received 21 November 2017; Received in revised form 26 November 2018; Accepted 20 December 2018
Available online 21 December 2018

jobs from native workers and use housing and health care services disproportionately to their contributions (DeSipio & De La Graza, 2015).

Resettlement to a new country with anti-immigration sentiments can be associated with a variety of social stressors, including changes in family roles, language barriers, acculturative stress, and adjustment to stigma, all of which are associated with psychological distress (Kirmayer et al., 2010). When depressed and anxious, less-acculturated Latinx and Asian immigrants tend to seek help from primary care physicians or alternative medical practices but rarely utilize mental health services. Undocumented immigrants are especially vulnerable to experiencing chronic stress as a result of living in constant fear and being hypervigilant about their surroundings (Martinez et al., 2015).

Immigrants who come from a culture or region where professional mental health services are unavailable may be unaware that they are experiencing a diagnosable and treatable condition (Derr, 2016; Jasinskaja-Lahti, Liebkind, Jaakkola, & Reuter, 2006; Song et al., 2015). Immigrants' lack of mental health knowledge, including causes, determinants, and treatment options for various illnesses, constitutes a serious obstacle to accessing mental health services in the U.S. (Pumariega, Rothe, & Pumariega, 2005). In these circumstances, community advocates and gate keepers may be instrumental in providing access to mental health services by referring distressed individuals to professionals and providing literacy education during mental health crises.

### 1.2. Mental health literacy interventions

Evidence-based practice for anti-stigma interventions involves exposure of the general public to individuals with mental illness as well as mental health literacy and education programs to support persons with mental illness. According to a meta-analysis of 62 randomized controlled trials that involved an examination of public stigma toward people with severe mental illness, both contact interventions and educational interventions have small-to-medium immediate effects on reducing stigma (Morgan, Reavely, Rose, Too, & Jorn, 2018). Each intervention alone showed effects that were similar to the combination of contact and education. Family psychoeducation programs also resulted in reductions in stigma, while the effectiveness of hallucination simulations, as described later, on stigma was mixed (Brady, Kangas, & McGill, 2017; Morgan, Reavely et al., 2018).

The Mental Health First Aid (MHFA) training, in combination with contact and education interventions, is a standardized program developed to provide skills for how to recognize and respond to individuals who display signs of mental health problems (Kitchener & Jorm, 2002). The MHFA USA training program, which is intended for use by the general public, uses a pedagogical approach similar to that of physical first aid programs, with a focus on practical skills to offer initial help to someone who is experiencing mental health problems. Developed and implemented in Australia, MHFA training has since been adopted in 21 other countries around the world.

The MHFA program is designed to improve participants' knowledge of mental health, certain common disorders (e.g., depression, anxiety, psychosis, substance abuse, self-harm, suicidal behaviors), and available treatment options (Swarbrick & Brown, 2013). This 8-h face-to-face training teaches participants to connect individuals in need with professional, peer, social, and self-help care. MHFA uses a mnemonic device—ALGEE (Assess and assist with any crisis; Listen and communicate non-judgmentally; Give support and information; Encourage the person to get appropriate professional help; and Encourage other supports) as its action plan (and is the name of the program's koala mascot).

Hadlaczky, Hökby, Mkrtchian, Carli, and Wasserman (2014) conducted a meta-analysis of 15 studies that reported quantitative outcomes of MHFA trainings (i.e., nine single-group post-test and six controlled trials). More recently, a meta-analysis was conducted to include a total of 18 trials (5,936 participants; four cluster-randomized control trials (C-RCTs), 10 RCTs, and 4 controlled trials) (Morgan, Ross, & Reavley, 2018). These trials supported the effectiveness of MHFA training in improving mental health literacy and providing appropriate support for those with mental health problems up to six months after training. MHFA training appeared to lead to improved mental health first aid knowledge, including recognition of mental disorders and beliefs about effective treatments. Morgan, Ross et al. (2018) also found small reductions in stigma, as evidenced in improvements in confidence in helping a person with a mental health problem and intentions to provide first aid. Overall, the results of these meta-analyses were consistent, and moderator analyses suggested no systematic bias; thus, the MHFA program is recommended for public health action (Hadlaczky et al., 2014).

The effectiveness of MHFA has been established in English-speaking, Western industrialized countries. There is scant literature, however, that examines the extent to which the training is equally applicable to immigrant and refugee populations. The research that does exist used quasi-experimental designs to investigate the program's effectiveness in enhancing cross-cultural participants' knowledge of mental disorders, reducing stigma, and improving perceived confidence in regard to helping people with mental illness. Such research indicated that MHFA appeared to be highly effective for Chinese communities in Hong Kong (Wong, Lau, Kwock, Wong, & Tori, 2015), Vietnamese immigrants in Australia (Minas, Colucci, & Jorn, 2009), and Chinese immigrants in Australia (Lam, Jorm, & Wong, 2010). Notably, in these studies, the cross-cultural samples presented relatively low levels of mental health literacy at pre-test.

Following MHFA training, Bhutanese refugee community leaders in the United States showed significant improvement in the recognition of symptoms of depression, and their expressed beliefs about treatment became more concordant with those of mental health professionals (Subedi et al., 2015). Nevertheless, this short-term training was insufficient to reduce their negative attitudes toward people with mental illness. This finding implies that attitude change requires more careful adaptations of MHFA training to address cultural relevance as well as the daily stressors faced by this population.

Likewise, six months following the training, 86 community-based Australian workers, who were assisting Iraqi refugees, reported significant changes in their ability to recognize symptoms of post-traumatic stress disorder (PTSD) and depression and in their confidence in helping an Iraqi refugee with a mental health problem (Guajardo et al., 2018). It was difficult, however, to evaluate how such mental health literacy training could lead to behavior change (e.g., the number of times workers have helped refugees).

### 1.3. Research aims

Immigration results in an influx of people who come from different cultural backgrounds. Thus, it is essential for service providers to implement interventions that are tailored to immigrants' cultures. The purpose of the current project is to empower community-based workers who serve in immigrant communities, through MFHA training, to respond to behavioral health challenges by cultivating community collaboration in their Latinx and Asian American immigrant communities. This study aims to evaluate the degree to which MHFA training is able to improve participants' mental health literacy, boost their confidence in helping someone with a mental health problem, and reduce their stigmatizing attitudes and social distance.

## 2. Methods

### 2.1. Participants and Recruitment

This study was conducted in a public university in a Southeastern city in the United States. The city saw its immigrant population jump

from 23,000 in 1990 to 173,000 in 2010 (American Immigrant Council, 2015). With this influx of newcomers, this conservative region witnessed anti-immigrant sentiments and discriminatory practices (Budget and Tax Center, 2017). In this cultural climate, improving access to mental health care for these immigrants became especially salient.

The target of this study was community-based workers, some of whom were first-generation immigrants, who were committed to improving the mental health of immigrant communities. Other potential participants are high school teachers, nurses, occupational therapists, lawyers, dieticians, chiropractors, police officers, and small business owners.

To reach out to these advocates, we first established a community advisory committee that included leaders from healthcare organizations in Latinx and Asian American immigrant communities. The advisory board was presented with a preview of the training so that each partner could see what the MHFA training entails and decide on who from their respective agencies should be trained as “first aiders.” In collaboration with local medical centers, we established partnerships with the Refugee Resettlement Agency, Latino Coalition, and Asian American Chamber of Commerce. We also reached out to key informants in faith-based communities as well as to small business owners; both of these groups are major stakeholders in Latinx and Asian American immigrant communities.

The recommended class size of the MHFA USA training is 20 to 25 people. Four separate MHFA training sessions took place in 2016 (i.e., 18 to 25 participants for each of the 8-h training sessions). Initially, 94 people signed up for one of four MHFA training sessions. A total of 89 participants with the potential to become advocates to assist immigrants with mental health disorders completed the 8-h training, indicating a 95% completion rate.

### 2.2. Training and Research Design

The MHFA USA training educates laypersons in how to recognize and respond to risk factors and warning signs of mental health disorders, such as anxiety, depression, schizophrenia, bipolar disorder, and substance abuse disorders (Swarbrick, & Brown, 2013). Through the use of scenarios, role playing, and simulations, participants are given the opportunity to practice their new skills and to gain confidence in helping others who may be developing a mental health or substance use problem.

This research project sought to evaluate the efficacy of MHFA training. All MHFA trainees who participated in the 8-h training were asked to complete a survey before and after their training sessions. The survey was administered to assist in the identification of factors that could explain the effectiveness or ineffectiveness of the implemented activities. The protocol for administering the survey was approved by the Human Subjects Review Committee of the university research team.

### 2.3. Measures

Three questions were developed to assess participants’ overall satisfaction about the training. Using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree), participants were asked to report how useful they found the MHFA training to be and how likely they would be to apply what they had been taught in real-life scenarios. In a follow-up question, participants were asked to rate how confident they felt in their ability to adopt the strategies learned during the training when interacting with someone who has a mental health disorder. This study also used two major outcomes measures: mental health literacy and stigma.

#### 2.3.1. Mental Health Literacy

The concept of mental health literacy provided a useful frame of reference for understanding the factors that may affect an individual's mental health and help-seeking behavior. The Mental Health Literacy Scale (MHLS) was developed to assess participants’ knowledge of mental health disorders (Reavley, Morgan, & Anthony, 2014). Based on data from a survey of 1,536 health service providers, this scale is used to assess participants’ knowledge of mental health disorders and their attitudes toward interventions.

Scale items gauge participants’ ability to listen to individuals in distress and to offer them basic first aid information about mental health problems. Previous psychometric testing of this scale has reported internal consistency, with a Cronbach's alpha of 0.84 (Dias, Campos, Almeida, & Palha, 2018). In this study, the internal consistency reliability coefficient for the 9-item MHL scale has a Cronbach's alpha of 0.77.

#### 2.3.2. Stigma

The Opening Minds Stigma Scale for Health Care Providers (OMS-HC) was developed to study stigmatizing attitudes among healthcare providers, including social workers, medical students, non-medical personnel, and psychologists (Modgill, Patten, Knaak, Kassam, & Szeto, 2014). The scale is used to measure attitudes through three main factors: social distance, disclosure/help seeking, and attitudes toward behavioral health and individuals who have mental health disorders.

Items include participants’ willingness to have someone with mental illness as their coworker/neighbor and their general beliefs toward mental health (e.g., the best treatment for mental illness is medication). This scale was chosen for this study due to its ability to capture an overall comprehensive understanding of stigmatizing attitudes toward individuals with mental health disorders of anyone who works in close proximity to these individuals.

The OMS-HC uses a 5-point Likert scale for responses to each of the 20 items (Modgill et al., 2014). Scores can range from 20 (least stigmatizing) to 100 (most stigmatizing), with higher scores as indicating a more stigmatizing attitude. The scale was validated based on data collected during 12 different anti-stigma interventions across Canada (van der Maas et al., 2017). The internal consistency reliability coefficient for the OMS-HC in this study has a Cronbach's alpha of 0.75.

#### 2.3.3. Qualitative Data

Two types of qualitative data were collected and analyzed. Participants were asked to complete an evaluation survey in which they provided their opinion about the strengths and weaknesses of the MHFA training. At the end of each training session, participants were encouraged to verbally express their comments about the MHFA in a group setting. Researchers recorded field notes during the training as a means to look for patterns in group activities and social interactions, that is, the ideas and beliefs of the MHFA participants as expressed through their language, actions, and behaviors in the group settings.

### 2.4. Data analysis

Quantitative data analysis was performed using SPSS v. 23 for Windows. Descriptive statistics (e.g., frequencies, proportion distributions, means, standard deviations) and correlation analysis were used to examine data patterns and relationships between sets of key variables. Paired *t*-tests were conducted to compare pre- and post-survey results. Cohen's *d* was computed to evaluate the effect size.

Content analysis was conducted to determine meaningful phenomena in regard to participants’ experiences in the MHFA training. To analyze the data, the authors used an open coding system derived from the grounded theory approach (Glaser & Strauss, 1967). Following thorough reading and re-reading of the participants’ feedback, codes were generated.

Using the phenomenological approach to analyze qualitative data, each researcher independently examined the common themes as well as the variations to capture the unique individual voices (Moustakas, 1994). By interrogating the meaning of the various clusters

**Table 1**
Demographic profiles of MHFA participants ($n$ = 89).

| | *n* | % |
|---|---|---|
| Gender | | |
| Women | 80 | 90.0 |
| Men | 9 | 10.0 |
| Race | | |
| White | 40 | 44.9 |
| African Americans | 34 | 38.2 |
| Hispanic/Latino | 6 | 6.7 |
| Asian Pacific Islanders | 2 | 2.2 |
| American Indians | 1 | 1.1 |
| Others | 6 | 6.9 |
| Age range | | |
| 18–24 | 26 | 29.3 |
| 25–44 | 40 | 44.9 |
| 45-60 | 17 | 19.1 |
| 61 + | 6 | 6.7 |
| Education | | |
| GED | 2 | 2.2 |
| Some college | 12 | 13.5 |
| College graduate | 27 | 30.3 |
| Graduate schools | 48 | 54.0 |
| Involvement with immigrant communities | | |
| Volunteer works | 28 | 31.5 |
| College students | 16 | 17.8 |
| Health centers | 8 | 9.0 |
| Schools | 9 | 10.1 |
| Clergy | 3 | 3.4 |
| Other | 25 | 28.1 |
| Primary language | | |
| English | 80 | 89.9 |
| Spanish | 9 | 10.1 |

of themes, central themes related to class activities, group processes, and social interactions are determined.

## 3. Results

Table 1 provides the demographic information for all 89 MHFA participants. The majority were women (90%) with a college degree (82%). Racial/ethnic backgrounds included non-Hispanic White (45%), African American (38%), Hispanic (7%), Asian (2%), American Indian (1%), and multi-race (7%). Almost three-quarters (74.2%) of participants were between 18 and 45 years old.

Participants were involved in local immigrant communities in various ways. Of the participants, 32% were volunteers at agencies and handled human trafficking, refugee resettlements, domestic violence, and undocumented immigrants. Others were professionals (e.g., teachers, nurses) who were affiliated with school systems (9%) and health centers (10%) and served immigrants and refugees. In addition, 17% were undergraduate students who were majoring in social work, nursing, and public health and who had expressed their intention to work with Latinx and Asian American immigrant communities in the near future.

### 3.1. Quantitative analyses

In regard to participants' level of satisfaction with the MHFA training, overall, the program was favorably received. There was an agreement among participants that the training was useful ($M$ = 4.10, $SD$ = 1.40), with a clear indication that they would use the concepts learned to help someone with a mental illness ($M$ = 4.09, $SD$ = 1.39). In addition, participants gained more confidence in their capacity to help immigrants and refugees with mental illness ($M$ = 3.87, $SD$ = 1.36). (Table 2.)

Table 3 provides a comparison of the pre- and post-test scores on the MHLS and the OMS-HC. As seen in the table, following the 8-h training, participants' level of mental health literacy significantly improved

**Table 2**
Opinion about MHFA training.

| | *M* | *SD* |
|---|---|---|
| Usefulness of training | 4.10 | 1.40 |
| Confident to help | 3.87 | 1.36 |
| Use what I learned | 4.09 | 1.39 |

($t$ = 11.81, $p$ < .01, Cohen's $d$ = 1.53).

Similarly, scores on all three subscales of the OMS-HC revealed significant changes. At post-test, participants reported holding positive attitudes toward individuals with mental health disorders ($t$ = 4.25, $p$ < .001, Cohen's $d$ = 0.55) and had a better understanding of how important help-seeking and disclosure behaviors are within immigrant communities ($t$ = 4.94, $p$ < .001, Cohen's $d$ = 0.60). The results also indicate that participants were likely to decrease their social distance from people who experience mental health disorders ($t$ = 2.47, $p$ < .01, Cohen's $d$ = 0.27).

Regression analysis was conducted to examine the impacts of age and race on participants' scores on the MHLS and OMS- HC. The results (not shown) indicate that there were no significant racial or age-related differences based on participants' scores. One evident limitation of this result, however, was the small sample size.

### 3.2. Qualitative analyses of participant feedback

The emerging themes, based on the observational field notes taken by researchers during four separate MHFA trainings, included various activities and participants' interactions with each other. As shown in Table 4, codes were organized into five main categories: (1) content/information, (2) interactive exercises, (3) practical action plans, (4) course level, and (5) other miscellaneous responses.

The majority of qualitative comments described the informativeness of the MHFA program content. Of the participants, 66% made positive comments about the materials covered during the training. One participant stated, "I definitely left with very valuable information on how to help people who may be going through a mental health crisis." Another participant asserted that everyone should take this class.

Nearly 35% of participants indicated that they enjoyed the opportunity to learn about the tenets of the MHFA practical action plan (i.e., ALGEE). Some of the participants found it helpful to have concrete tips when faced with someone with a mental illness (e.g., what to say vs. what not to say; what do to when someone is not ready to talk). In particular, two participants mentioned that they found it quite helpful to hear one of the instructors share her personal stories. Two retired teachers, who were caregivers of their sister with schizophrenia, were happy for the opportunity "to be with roomful of very caring people."

There were a variety of perceptions about the course level among participants. Of the participants, 17% thought that the 8-h course was "too basic," "repetitive," or "lengthy." Nevertheless, 14% felt that the repetition was helpful. A few participants expressed concerns about whether the same MHFA action plan is applicable to all mental health disorders (e.g., depression vs. schizophrenia). They suggested that a different action plan is needed for each mental health diagnosis. Some participants (6.7%) wanted to have more engaging exercises via role play.

In addition, participants engaged in discussions about the barriers that immigrant communities encounter when seeking help for their mental health symptoms. Three participants who work with human trafficking victims highlighted the need to include specific information related to PTSD in the training. One participant stated, "The training offered information from U.S. English-speaking perspective." A few participants (4.5%) also suggested incorporating into the training more elaborate discussions about cultural competency and strategies to deal with crisis situations.

**Table 3**
Pretest and posttest comparison of outcomes.

| | Pretest | | Posttest | | | |
|---|---|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* | *t* | *Cohen's d* |
| Mental health Literacy scale (9 items) | 33.70 | 5.44 | 41.0 | 4.0 | 11.81** | 1.53 |
| Opening minds scale for health Care Professionals (20 items) | | | | | | |
| Attitudes toward people with mental illness | 13.52 | 4.91 | 11.01 | 4.17 | 4.25** | 0.55 |
| Disclosure & help seeking | 11.06 | 3.03 | 9.31 | 2.77 | 4.94** | 0.60 |
| Social distance | 9.82 | 2.96 | 9.02 | 2.93 | 2.47* | 0.27 |

* $p < .01$.
** $p < .001$.

**Table 4**
Qualitative analysis.

| Themes | Examples | *N* | % |
|---|---|---|---|
| Information and content | Manual, powerpoint slides, handouts, presenters | 59 | 66.2 |
| | Needs more content about immigrants | 13 | 14.6 |
| | Needs more discussion on cultural competency | 4 | 4.5 |
| | Needs more tips to deal with crisis | 4 | 4.5 |
| Interactive exercises | Case study, exercises, video, | 49 | 55.1 |
| | Needs more engaging activities | 6 | 6.7 |
| Practical action plans | ALGEE | 31 | 34.8 |
| Course level | Easy to follow | 12 | 13.5 |
| | Too basic, repetitive | 15 | 16.9 |
| Miscellaneous | Positive atmosphere | 2 | 2.2 |
| | Sharing personal stories | 2 | 2.2 |
| | Negative comments on some attendees | 2 | 2.2 |

### 3.3. Researchers' observation

MHFA participants in the study enjoyed the interactive exercises presented in the form of case studies, role plays, video clips, and related activities. They engaged in "drawing what anxiety looks like" within small groups and collaborated with others to represent symbols of anxiety as part of large, blank flow charts. As part of the Disability Weight exercise, participants were asked to line up based on the severity of several mental health disabilities (Swarbrick, & Brown, 2013). Through the visualization of lining up, they learned about the high tolls that mental health disorders take.

As part of another exercise, the Auditory Hallucination, participants from different teams were asked to mimic the situation of someone with schizophrenia who hears voices on a daily basis (Swarbrick, & Brown, 2013). Two of the team members were asked to communicate with one another, while the third member would whisper negative comments to one of them. A Latina participant in her 60 s was the caregiver of her son with schizophrenia. Following the auditory hallucination exercise, she had an epiphany and stated, "I had no idea … This is what [my son] is hearing all the times."

## 4. Discussion

In the current political climate in the United States, with strong anti-immigration sentiments, immigrants are often shut out of mental health care and suffer from mental health conditions in silence. Immigrants with mental health disorders are more likely to break their silence and engage in mental health treatment, however, if they are part of a community that accepts their illnesses and feel comfortable disclosing their disorders to advocates in their community. The findings revealed that MHFA training was successful at helping advocates to recognize signs and symptoms of mental health disorders and at giving them the confidence that they need to help underserved immigrants who may develop mental health problems. By completing the training, advocates for immigrant communities are better prepared to intervene, as evidenced by improved knowledge of mental illness, appropriate helping responses, and reduced stigmatizing attitudes.

In keeping with previous research, the results of this study indicate that MHFA literacy training enhanced participants' knowledge of mental health, reduced their negative attitudes, and increased supportive behaviors toward individuals with mental health challenges (Hadlaczky et al., 2014; Morgan, Reavely et al., 2018). In this study, confidence and intention to provide MHFA were considered proxy measures of behavior change. Perceived confidence is usually assessed with a single question in relation to helping a person with a mental health problem, and the use of a single question has been shown to be predictive of high-quality support (Morgan, Reavely et al., 2018).

Further, the findings implied that MHFA training can be applicable to underserved Latinx and Asian immigrants with relatively low levels of mental health literacy. The study findings were in agreement with the preexisting literature that demonstrates the benefits of MHFA for other ethnic minorities in the cross-cultural settings (Guajardo et al., 2018; Lam et al., 2010; Minas et al., 2009; Subedi et al., 2015; Wong, et al., 2015).

### 4.1. Strength and limitations

The strengths of the study were seen in its carefully selected group of participants and highly standardized intervention, which the vast majority of participants were able to complete. Further, a mixed-methods approach to combine both quantitative and qualitative data helped to identify the strengths of the program and provide suggestions for improvement when applied to cross-cultural settings.

The findings of this study should be interpreted in light of its limitations. First, the generalizability of the results is limited due to the small sample size and the use of convenience sampling. An intervention with a randomized control group design, which uses a larger sample size, is needed to examine the impact of age and race/ethnicity. Another evident limitation was the absence of a follow-up survey to determine whether the positive effects carried forward several months post-intervention. Further, this study did not provide a direct measurement of behavior change. Future research should incorporate an evaluation of the impact of the training of these advocates on the actual number of mental health referrals they made and the help-seeking behaviors they identified. In addition, future research should examine how to sustain the benefits of literacy training in the longer term.

### 4.2. Implications for practice

Culturally tailored psychoeducational initiatives at the community level have been limited. Providing the appropriate mental health care to underserved immigrants, while taking into account differences in culture, language, coping, and help-seeking patterns, remains a challenge (Derr, 2016; Pumariega et al., 2005; Saechao et al., 2011). This study attempted to evaluate the impact of the MHFA training on people who serve immigrant communities. As illustrated in the qualitative feedback, a more culture-specific approach is desirable. Considering that the study region had a high prevalence of human trafficking, future training should include specific guidelines and strategies to work with

human trafficking victims and other survivors to effectively address their PTSD symptoms.

Collaboration between healthcare organizations and social service agencies is essential to achieving integrated behavioral health care and improving mental health among immigrants. Such joint efforts could help to ensure that immigrants receive a continuum of care that guides them through all levels of healthcare. For optimal collaboration, MHFA training should be recommended to community partners, frontline staff, volunteers, and advocates for Latinx and Asian American communities.

Some participants desired to learn more about community resources for undocumented immigrant families. To this end, social support, as offered through the MHFA training program, plays an increasingly pivotal role in achieving healthier communities, particularly for some of the most vulnerable citizens, such as recent immigrants and undocumented individuals (Jasinskaja-Lahti et al., 2006). Collaborative partnerships with law enforcement agencies, mental health providers, and other community-based entities are strongly recommended for a more safe and effective response to individuals with mental illness. Following a collaborative exchange of information among the participants about local agencies and referral resources for immigrants and refugee populations during the four training sessions, a list of community resources was created and shared with all MHFA participants via a follow-up email.

In previous research, the effectiveness of hallucination simulations was mixed (Morgan, Reavely et al., 2018). The findings related to the Disability Weight and Auditory Hallucination exercises revealed that MHFA participants benefited from interactive exercises to increase their levels of empathy. Such interactive exercises are examples of effective and non-threatening tools that could be used to educate the general public about the negative impacts of stigma. Further research is required to determine the intervention strategies that are most likely to have a maximum impact on the stigma level in cross-cultural populations.

## 5. Conclusion

This pilot study evaluated the effectiveness of the MHFA USA training program when administrated to advocates who serve Latinx and Asian American immigrant communities, with the goal of creating gatekeepers and frontline workers to help immigrants with mental health challenges. As MHFA continues to grow, it enables Latinx and Asian American immigrant communities to take charge of their behavioral health and become more educated about helping themselves and their neighbors. Creating a community-wide collaboration is essential to build a recovery and resiliency-oriented approach. In addition to engaging community partners, educating community members about mental health is essential to creating a healthy, supportive, and responsive community capable of addressing the needs of its mental health consumers and navigating their paths to recovery.

## Acknowledgement

This study was funded by Chancellor's Diversity Challenge Fund at University of North Carolina at Charlotte. We thank Ms. Claire Schuch, Miriam Espaillat, and Gabriela Staley who served as instruction in the MHFA trainings.

## Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.mhp.2018.12.003.

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