The global burden of disease related to mental health is astronomical and growing, with underprivileged countries being disproportionately affected. The Mental Health Facilitator (MHF) program was designed by the National Board for Certified Counselors (NBCC) to address the need for greater mental health support within international communities lacking adequate mental health practitioners to provide services. The MHF program trains individuals within communities to provide support and necessary referrals for those struggling with mental health challenges. This study assesses the effectiveness of MHF trainings conducted in a diverse subset of countries and communities. Initial findings from the analyses found significant gains in participants’ knowledge of mental health and mental health facilitation skills across training populations.

Keywords: Mental Health Facilitator, MHF, mental health, NBCC, global

Over 450 million individuals around the world struggle with mental health concerns with 300 million people alone suffering from depression (World Health Organization [WHO], 2018). Mental health is defined as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (WHO, 2014a, para. 1). Mental disorders account for nearly 30% of the global burden of disease (i.e., what kills, injures, and disables people around the world) in terms of years lived with disability (Kessler et al., 2009; Vigo, Thornicroft, & Atun, 2016). In addition to the hardships that mental disorders place on an individual’s social relationships, occupational opportunities, and physical health, nearly 800,000 people a year die by suicide, with 75% of those individuals residing in developing countries (WHO, 2014b). Such staggering statistics include the rank of suicide as the second most common cause of death among young people globally (WHO, 2014b).

In addition to personal struggles, communities also face economic hardships related to mental disorders. The global cost of mental health was estimated at $2.5 trillion in 2010, with estimates of costs expected to reach as high as $6 trillion by 2030 (Bloom et al., 2011). Such costs can be devastating for individuals and communities alike, especially where resources are limited.

Despite the exorbitant number of individuals around the world struggling with mental health concerns and the associated individual, societal, and economic costs, only a small portion of people receive the support they need (Hinkle, 2014; Kohn, Saxena, Levav, & Saraceno, 2004; Wang et al., 2007). It is important to note that only one third to one half of individuals in high-income countries receive mental health care. This gap is even more pervasive in low- to middle-income countries, with a mere 15%–24% of individuals receiving any form of mental health support (Demyttenaere, 2004). Furthermore, according to WHO (2015), most of the world’s population live in areas where there is an average of less than one psychiatrist per 200,000 people and even fewer individuals trained in psychosocial interventions.
This gap in service provision and treatment stems from both attitudinal (e.g., misinformation about mental health such as low perceived need, stigma, and discrimination) and structural-level (e.g., availability of services, financial considerations, and transportation problems) barriers (Andrade et al., 2014; Hinkle, 2014). Although attitudinal barriers appeared to be more pervasive, overall individuals with more severe mental health conditions and those in low- or lower-middle-income countries cited financial and service availability barriers as being especially problematic. In 2011, WHO detailed the scarcity of resources available to treat and promote mental health across the spectrum of high- to low-income countries, which leads to a gap in the provision of treatment as well as the quality of treatment when it is available. For example, within high-income countries, approximately $44.84 USD is spent per person on annual mental health expenditures, a value which drops to $0.20 USD per person in low-income countries (WHO, 2011). Clearly, a strategy to lessen this gap in global mental health service provision is needed.

A Call to Action

Given the pervasiveness and deleterious consequences of mental health disorders paired with the dearth of individuals receiving treatment, there is a global imperative that countries begin prioritizing mental health awareness, education, and treatment and combatting the noted barriers to individuals seeking and receiving adequate care. Enhancing the awareness and education of not only individuals struggling with mental health difficulties, but also members of the community, would be beneficial in addressing attitudinal barriers, while providing additional resources through increasing the number of both service providers and service centers can help to eliminate structural barriers to services. Such solutions are reflected in the WHO’s (2013) Mental Health Action Plan, which outlines the following four objectives:

1. to strengthen effective leadership and governance for mental health; 2. to provide comprehensive, integrated and responsive mental health and social care services in community-based settings; 3. to implement strategies for promotion and prevention in mental health; and 4. to strengthen information systems, evidence and research for mental health. (p. 10)

Several approaches exist to address these objectives, yet one program in particular is unique in creatively addressing multiple objectives at once. Developed by the National Board for Certified Counselors (NBCC) and initially endorsed by WHO, the Mental Health Facilitator (MHF) program aims to reduce disparities in mental health care by facilitating access to support individuals and mental health services in underserved populations (Hinkle, 2006, 2014; Hinkle & Saxena, 2006). Specifically, the MHF program trains diverse community members (i.e., mental health laypersons) in the knowledge and skills necessary to identify mental health needs, support those in need of care, work with existing care resources, and make referrals to mental health professionals as needed (Hinkle & Henderson, 2007). The program focuses on creating a culturally appropriate curriculum adaptive to community needs and contexts while also providing fundamental information concerning mental health and basic psychosocial interventions. Also, unlike many other programs, the MHF program is only tailored and implemented into specific communities at the community’s request. In this way, the MHF program content aligns with WHO’s Mental Health Action Plan by working to strengthen culturally appropriate information systems, implementing strategies for promoting mental health and decreasing the severity and pervasiveness of disorders, and enhancing responsive and integrated service provision within community-based settings tailored to the needs of that community (Hinkle, 2014).
Content of the MHF Program

The mission of the MHF program is to provide skilled, responsible access to quality mental health interventions. This is usually accomplished through basic first-contact help and referrals to mental health professionals with respect for human dignity and meeting population needs by balancing globally accepted mental health practices within local norms and conditions (Hinkle, 2014). Cross-disciplinary in nature, the MHF program includes competencies from psychiatry, psychology, social work, psychiatric nursing, and counseling, covering topics such as helping skills, diversity, violence and trauma, suicide prevention, and referral and consultation skills. The design of the training emphasizes important considerations and approaches in addressing mental health concerns while allowing for flexibility in implementation. This flexibility is a key strength of the training program and is necessary given the breadth of cultural and contextual factors affecting mental health and mental health care around the globe. Such flexibility allows local stakeholders to identify and adapt the training to local needs and the knowledge gained from the MHF training program to be implemented within existing care settings or to provide a foundation for care in areas where no established system is present. The information contained within the training and flexibility of implementation constitute a population-based mental health care approach to addressing health care needs across a broad range of social, political, economic, and cultural environments (Hinkle, 2014), and one that is growing in its evidence base.

History and Implementation of the MHF Program

The MHF program is a three-tiered, train-the-trainer implementation model that consists of MHF master trainers, MHF trainers, and mental health facilitators. MHF master trainers are selected by NBCC based on specific criteria, most notably the completion of considerable training and experience in mental health and education. MHF trainers are often professionals or paraprofessionals with mental health and teaching experience located in the community who can train community groups. MHF trainees are typically laypersons with an interest in mental health who then become the first line of support for community members with mental health needs. Following training at each of the levels, individuals are registered in the international MHF registry. Currently there are over 4,774 registered MHF master trainers, MHF trainers, and mental health facilitators located around the world.

The MHF program was first established in 2005, when NBCC worked in collaboration with WHO to establish a panel of experts, including mental health professionals from the United States, Canada, Malaysia, Trinidad, St. Lucia, Turkey, Romania, India, Mexico, Botswana, and Venezuela, who would contribute to the development of the MHF training manual, curriculum, and implementation plans. This approach led to content and delivery plans that represented diverse cultures and thus diverse perspectives on mental health, mental health care, and the role of MHF master trainers, MHF trainers, and mental health facilitators. The curriculum and master training guide were completed and piloted in Mexico City in 2007 and 2008. Later in 2008, the first train-the-trainer program was delivered in Lilongwe, Malawi. To date, NBCC has partnered with 26 countries, including eight countries in Africa, five in Asia, four in the Middle East, and eight in Europe, as well as programs in Mexico and the United States. Furthermore, the MHF curriculum has been translated into Arabic, Chinese, Dzongkha (the language of Bhutan), Estonian, German, Greek, Japanese, Malay, Portuguese, Romanian, Russian, Spanish, and Swahili (Hinkle, 2014).

The MHF Curriculum

When developing a partnership with NBCC, communities can choose one of five MHF curricula to best suit their needs, namely the original MHF training, an abridged MHF training, a training for educators (MHF-EE), an abridged MHF-EE, or a version for first responders (i.e., fire, rescue, and police). The five MHF curricula share core content aimed at helping professionals and
paraprofessionals improve communication and helping skills, identify local mental health resources, understand important ethical considerations, and connect health providers with individuals within their community who are in need of mental health services (Hinkle, 2014). In addition to the core content, the curricula directed toward educators and emergency personnel contain tailored modules to best support those populations. With trainings ranging from 6 to 30 hours, the curricula can be delivered over consecutive days or divided into its modules and taught over several weeks, depending on community needs (Hinkle & Henderson, 2007).

The foundation of the MHF curriculum underscores the shared experiences of stress, distress, and disorder (Desjarlais, Eisenberg, Good, & Kleinman, 1995; Hinkle, 2014; Hinkle & Henderson, 2007). Given these theoretical underpinnings, the core modules cover topics such as basic helping skills, coping with stress, community mental health services, and community advocacy skills, and also introduce trainees to considerations around ethical practice and specifics about interventions such as suicide mitigation and trauma responses (Hinkle, 2014). Participants learn the benefits of investing in mental health, barriers to mental health care, cost-effective interventions, how mental health disorders impact families, confidentiality and privacy, and the broad mission of the MHF program (Hinkle, 2014).

In the basic helping skills section of the training, trainees cover development; diversity; verbal and nonverbal communication; facilitative skills such as listening, asking questions, and providing reflections; assessing for mental health concerns; empathy and understanding human feelings; and how to make referrals and effectively terminate relationships (Hinkle, 2014; Hinkle & Henderson, 2007). This information is followed by a discussion of how to understand problems, coping styles, and ways of effectively managing problems. The training then delves into recognizing stress, distress, and various disorders, including risk factors and mental health in children. The core modules conclude with discussions of suicide and trauma. Being the leading cause of death among young people in low- and middle-income countries, suicide is a pressing concern within all communities (WHO, 2006). Similarly, the pervasiveness of natural and human-born disasters and crises, such as war, forced displacement, human trafficking, typhoons, and wildfires, affects individuals of all demographics around the world and often goes untreated (Hinkle, 2014). A final topic covered in the core MHF training is the importance of self-awareness and self-care for mental health facilitators.

Moreover, the content in any of the five MHF curricula can be adapted to best fit the social, cultural, economic, and political realities and needs of any community, country, or region. For example, countries have chosen to add additional modules on child maltreatment in the Syrian region.

Past and Ongoing MHF Research

Building a strong evidence base is imperative to the development of a sustainable program that addresses the staggering gap that exists in mental health service provision. With limited resources spent on mental health, countries and communities cannot afford to implement programs that lack evidence supporting their projected outcomes and benefits. To this end, NBCC has and will continue to emphasize building a solid evidence base for the MHF program. Qualitative studies published to date (Luke, Hinkle, Schweiger, & Henderson, 2016; Van Leeuwen, Adkins, Mirassou-Wolf, Schweiger, & Grundy, 2016) support the perceived value and effectiveness of the program. Luke et al. (2016) reported that among the value and benefits, participants commented on how the program was culturally congruent and beneficially adapted to the needs of their community as well as how the program filled a need in terms of limited mental health resources. Participants further noted the considerable negative implications if the MHF program were to be discontinued (Luke et al., 2016). Van Leeuwen et al. (2016) also found notable positive perceptions of the MHF program. Participants reported that they gained
skills in communication and referral. They also noted how they received important education on mental health and causes of mental health problems, and an enhanced awareness of mental health in communication. Finally, participants reported that there were both personal and community benefits to the program, such as an ability to better understand their own mental health and the mental health of family members as well as a reduction in community mental health stigma (Van Leeuwen et al., 2016).

However, to date no study has reported the quantitative outcomes of MHF trainings. Most trainings include pre- and post-training assessments of participants using a true-false, pencil-and-paper–based assessment. The assessment for the original MHF curriculum had three small adaptations involving changing the wording on several questions in 2009, 2011, and 2013. The adaptations were minimal, so all years were included in this study. This study fills the gap in the MHF literature by reporting on the objective data gathered from the pre- and post-training assessments of the original MHF curriculum.

Methods

This study uses a quasi-experimental research design to evaluate whether participants in 88 MHF original trainings demonstrated increased knowledge of mental health issues and approaches to address community mental health concerns. The trainings spanned from 2009–2017 and included all MHF trainings conducted outside of the European Union and the United States. For each MHF training, pre- and post-training assessments were completed by all participants in an effort to evaluate the effectiveness of training. The pre- and post-training assessments contained 50 true-false questions with the pretest administered on the first day of training and the posttest administered at the final training day, 5 days later. The present study analyzed the pretest and posttest evaluations using paired t-tests and a one-way ANOVA.

Participants

Participants who completed all items on both the pretests and posttests were included in the study, resulting in 1,392 participants from 15 countries. Of the 1,392 participants, only 735 provided descriptive information. For those participants, 431 were female (59%) and 304 were male (41%). The age range of participants was 17 to 75 years with a mean age of 36 years. The education of participants ranged from elementary school to doctoral (PhD) and professional degrees (MD and JD). There were 14 participants reporting only an elementary school level of education (2%), 150 with high school (20%), 151 with a 2-year degree (21%), 310 with a 4-year degree (42%), 99 with a master’s degree (13%), and 11 with a PhD or professional degree (1%). Given that trainings were conducted in countries within North America, Africa, Asia, and the Middle East, the data included a diverse range of participants in terms of nationality.

Research Questions

There were two primary questions investigated in this study. The questions were prompted by a desire to better understand the effectiveness of the MHF trainings: (1) Does the MHF program training significantly increase overall knowledge of mental health facilitation from pretest to posttest evaluation for participants? and (2) How does performance on the pretest, or initial mental health knowledge, affect possible training gains made between pretest and posttest scores for the participants?

Data Preparation

Prior to formal data analyses, the authors examined the data to ensure it satisfied the assumptions of the relevant statistical tests. Upon initial data examination, the authors determined that 77 participants of an initial 1,392 were outliers. The outliers were those with scores 1.5 times the interquartile range, either above the third quartile or below the first quartile. Based on this, the data analyses presented in
the following sections were run with and without the outliers removed, and it was determined that the outliers did not significantly affect the results (the only exception to the outliers affecting the results is described in the results section). As such, the data analyses presented are using the remaining 1,315 participants after the removal of the outliers.

As the data set is too large for statistical normality tests to be accurate, skewness and kurtosis values were examined. The data set without the outliers had skewness (.208) and kurtosis (-.018), both values within the normal range. A visual inspection of the descriptive q-q line further supported the conclusion that the data is normally distributed.

Results

Overall Mental Health Knowledge Gain

The first research question, asking whether the MHF program training significantly increased overall knowledge of mental health and mental health facilitation, was assessed using a paired sample t-test. The result of this analysis showed that there was a significant difference ($t = -35.90$, $p = 0.000$) between pretest ($M = 37.64$, $SD = 5.58$) and posttest ($M = 41.17$, $SD = 5.24$) scores. This analysis confirms the hypothesis that the MHF program training significantly increases the scores of participants from pretest to posttest evaluation.

Initial Mental Health Knowledge and Training Gains

The second research question investigated whether the starting knowledge of participants, as measured in the pretest, affected the training gains made between the pretest and posttest. To address this research question, four categories based on pretest scores were generated. A descriptive analysis was conducted to determine the quartiles of the pretest scores, and the quartiles were used to define the categories. The authors determined that quartiles are an effective means of dividing the pretest scores into four groups given that the relationships between the groups are clearly linked to the overall distribution of pretest scores. The pretest scores ranged from 15–50 (the range of possible scores was 0–50), and quartiles were generated in order to better understand the effects of MHF training on participants with low, medium-low, medium-high, and high MHF knowledge going into the training. The quartile scores were as follows: low < 34 ($N = 317, M = 5.34, SD = 4.23$), medium-low = 34 to 38 ($N = 369, M = 4.13, SD = 3.62$), medium-high = 39 to 42 ($N = 340, M = 3.06, SD = 2.69$), and high > 42 ($N = 289, M = 1.35, SD = 2.04$).

To compare the four groups and answer the second research question, a one-way ANOVA was used. The analysis showed that the differences between the scores of the four categories are significant ($F[3, 1311] = 81.05, p = 0.000$). A post-hoc Tukey HSD test allowed for a more detailed understanding of the difference between the four groups. The Tukey HSD test results indicated significant differences between all four groups. The details of the differences between means in the post-hoc test are as follows. The low score group showed a significant difference between pretest and posttest scores compared to the medium-low test score group ($mean\ difference = 1.21, p = 0.000$), the medium-high test score group ($mean\ difference = 2.28, p = 0.000$), and the high test score group ($mean\ difference = 3.99, p = 0.000$). The medium-low test score group was significantly different from the medium-high ($mean\ difference = 1.07, p = 0.000$) and high ($mean\ difference = 2.78, p = 0.000$) test score groups, and the medium-high test score group was significantly different from the high test group ($mean\ difference = 1.71, p = 0.000$). When running the one-way ANOVA with the outliers included, the only difference in significance found in the results for any of the analyses occurred between the medium-low and medium-high groups. With the outliers included in the analysis, there was
no significant difference between those two groups, although all the other significant differences remained, and the overall trend of pretest to posttest score differences decreasing as the pretest score rose remained unchanged. The results of the analyses confirm that the lower the pretest scores, the larger the gain in knowledge from the training.

**Post-Hoc Data Analysis**

After considering the significant pretest to posttest gains, the authors became curious about whether the content of the pretest and posttest questions might be separated into subscales to better evaluate MHF training effectiveness. The observation that the questions on the MHF pretests and posttests naturally related to either knowledge or skills prompted the authors to separate the questions into the two subscale categories, MHF knowledge and MHF skills.

To generate the two subscales, one author went through the questions independently and categorized them for each of the three test iterations. Then, the second author went through the questions to confirm they fit the subscales. A paired t-test was used to determine whether participants demonstrated equivalent gains in both knowledge and skills.

The results of the analyses showed significant gains on both subscales. The mean gain on MHF knowledge was 1.41 ($N = 1315$, $t = -22.86$, $p = 0.000$), and the mean gain on MHF skills was 2.12 ($N = 1315$, $t = -29.67$, $p = 0.000$). The results of this post-hoc analysis confirm the hypothesis that the MHF program training leads to significant increases in both MHF knowledge and skills.

**Discussion**

The results of the present study provide further evidence of the effectiveness of the MHF program. Previous studies have examined qualitative accounts of trainees’ experiences and impressions of the program (Luke et al., 2016; Van Leeuwen et al., 2016). The present data, however, provide objective evidence that the program is indeed enhancing trainee knowledge of mental health and MHF skills. This finding suggests that individuals who complete the MHF program have the requisite knowledge and skills to provide frontline interventions and needed referrals for community members struggling with their mental health.

Interestingly, the results also demonstrate that the documented growth in knowledge and skills is relative to the existing knowledge of the participant prior to training, whereby those with less initial training (i.e., lower scores on the pretest) showed greater gains in knowledge and skill from participation in the MHF training. Although somewhat intuitive, this provides evidence that the program is successful at enhancing the knowledge and skills of participants despite previous training in mental health. It brings all participants up to a similar, requisite baseline level of knowledge to perform mental health facilitation. Participants with little to no information regarding mental health can gain the needed knowledge and skills necessary to support the mental health of others in their community, while those with considerable information and training can refine their skills and knowledge for their new role.

Post-hoc analyses assessed whether the MHF program is equally adept at enhancing knowledge related to mental health and mental health struggles as well as the skills needed in mental health facilitation. Findings revealed that participants demonstrated a significant growth in both knowledge and skills. As such, the MHF program not only provides mental health literacy, but also the skills needed to support those in need. This is notable given the significant disparity of mental health literacy in both the developed and developing world (Ganasen et al., 2008; Jorm, 2000). Among
professionals and laypersons alike, the lack of knowledge and understanding of mental health not only contributes to the treatment gap, but also the considerable stigma faced by those who struggle with mental health issues.

Taken together, the results suggest that the researchers and program developers can confidently endorse this program as one that leads to an increase in mental health knowledge and skills associated with mental health facilitation among both professionals and laypersons. In this way, the MHF program furthers the WHO’s (2013) Mental Health Action Plan goals of strengthening information systems surrounding mental health and clearly establishing a requisite foundation for the implementation of strategies and services. In its proposed actions for member states, WHO emphasized the importance of human resource development by “build[ing] the knowledge and skills of general and specialized health workers to deliver evidence-based, culturally appropriate and human rights-oriented mental health and social care services” (WHO, 2013, p. 15).

Our findings also complement the positive evaluation feedback of participants. In particular, Van Leeuwen et al. (2016) found that participants appreciated the increased knowledge they gained, noting that it was beneficial to themselves as well as their community. Participants noted that they had an enhanced ability to better understand their personal and family members’ mental health and that the MHF training helped reduce community stigma. Examined in conjunction with the present data, this suggests that not only are participants objectively gaining knowledge about mental health, they are aware of what they learned and actively and intentionally applying that knowledge to help themselves, other individuals, and their overall community better understand mental health. Given that the present study also demonstrated that participants are gaining an enhanced understanding of MHF-related skills, the researchers are hopeful that with their knowledge of mental health, participants are likewise intentionally putting their facilitation skills into action to support those in need within their communities.

Limitations and Future Research

The present study provides a notable step in further documenting the effectiveness of the MHF program, yet the limitations of this research must be taken into consideration and used for ongoing program planning and research development. Using true-false repeated measures pre- and post-training assessment could lend itself to bias. Within such situations, the trainee may recall, implicitly or explicitly, the questions asked in the pre-training assessment and may be primed for remembering the information needed to respond to those questions. Similarly, although the findings were statistically significant, probability suggests that true-false questions are more accessible to educated guesses rather than a depiction of accurate knowledge. In this way, having a multiple-choice format test with possible case scenarios to assess application in greater depth might provide a richer depiction of the knowledge gained. The present means of assessment also are vulnerable to a ceiling effect, whereby those with the most knowledge around mental health would earn the maximum number of points on both the pre- and post-training assessment. Although the present testing level is the most adaptive to all knowledge levels, perhaps a greater breadth of questioning to assess more nuanced components of the MHF skillset might be more helpful in accurately assessing the knowledge and skills gained by those coming into the MHF program with more extensive mental health training. An additional limitation of the assessments specifically was the post-hoc distinction between the skills and knowledge components assessed in the MHF training. In the future, greater attention to developing questions specifically geared toward these two necessary areas will be more effective in discriminating such gains. One final limitation of the present study and an area well positioned for future research is the lack of specific data regarding how the knowledge and skills are being used following the training.
Prior to this study, there was no formal quantitative data analysis to substantiate the reach of the MHF program. In addition to this research assessing the knowledge and skills gained through participation in the MHF program, there is the equally important next step of assessing how that knowledge is being used to address the goals of the program. Research examining the extent to which the MHF program aides in increasing mental health access for individuals in need of support and thereby decreasing the treatment gap among individuals struggling with their mental health would be especially important in addressing the over 70% of individuals in developing countries who do not receive the mental health care they so desperately need (Demyttenaere, 2004).

Conclusion

The growing number of individuals around the world with mental health challenges, coupled with the lack of knowledge, services, access, and fiscal resources to address the growing need, drives mental health to the forefront of worldwide public health challenges. Countries and communities in both developed and developing countries alike must embrace creative, economical, and culturally appropriate population-based solutions. The MHF program developed by NBCC (Hinkle & Henderson, 2007), initially in coordination with WHO and mental health experts from around the world, provides one such solution. Extant research on the MHF program validates the cultural appropriateness of the tailored programs as well as the extent to which community members believe they have benefited from the trainings (Luke et al., 2016; Van Leeuwen et al., 2016). The present findings further this research by providing quantitative data speaking to the effectiveness of the program at enriching participants' knowledge and skills in relation to mental health. This burgeoning evidence base moves the MHF program one step closer to becoming a global best practice in addressing the notable and growing gap in mental health care around the world.

Conflict of Interest and Funding Disclosure
The first two authors were reimbursed by NBCC for expenses related to this manuscript. The third author is an employee of NBCC who has developed and conducted MHF trainings.

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