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Mental Health First Aid Training in Rural Maryland during the COVID-19 Pandemic: Program Implementation through Virtual Delivery

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The growing mental health concerns during COVID-19, particularly among rural residents, is a public health emergency. Rural residents are at an elevated risk, as rurality has been associated with various disparities, including lower accessibility to mental health services. Maryland Rural Opioid Technical Assistance (ROTA; Maryland Extension) aimed to address this issue by delivering evidence-based programs on opioid misuse and mental health to rural community members and practitioners throughout Maryland when the COVID-19 pandemic hit the U.S. and all research activities had to transition to the virtual setting. The current study provides an overview of the implementation process of the Mental Health First Aid (MHFA) program and reports the findings from the evaluation efforts. Participants (N = 398) completed a one-time online survey and answered open-ended questions, reporting high satisfaction rates and positive experiences with the virtual delivery of the program. Results suggested that the virtual format was still effective in program content delivery and that virtual delivery of evidence-based programs may be an opportune strategy to reach more rural residents. Recommendations for future research and practice efforts include building sustainable partnerships with local community organizations and considering rurality and prolonged-pandemic factors for effective program implementation.

Keywords: Mental Health First Aid, mental health, rural population, program implementation, virtual delivery, COVID-19

Introduction

The COVID-19 pandemic has deeply affected the everyday lives of all Americans. Not only has the pandemic presented us with grim statistics of confirmed cases and deaths due to the virus, but it has also taken a heavy toll on mental health. Elevated levels of adverse mental health symptoms, including anxiety, depression, and trauma- and stressor-related disorder (TSRD), have been observed in the U.S. during the pandemic (Czeisler et al., 2020). Moreover, an analysis of national emergency department visits showed that the visit rates for suicide attempts and drug overdoses were higher in 2020 than in 2019 (Holland et al., 2021). Such indicators underscore the need to prioritize screening and prevention efforts for mental health as part of the response to the ongoing pandemic.

In particular, the negative impact of COVID-19 is of special concern in rural communities, where disparities in mental health predate the pandemic. For example, rural suicide rates increased faster than urban suicide rates from 2000 through 2018, with the rate being nearly 1.5 times higher in rural compared to urban areas in 2018 (Pettrone & Curtin, 2020). Experts have pointed to several system-level factors, namely availability, accessibility, affordability, and acceptability of services, contributing to this health disparity (Jensen & Mendenhall, 2018; Wilson et al., 2015). Additionally, social isolation is one of the risk factors more commonly experienced among rural residents; recent social practices associated with COVID-19 (e.g., physical distancing, restricted in-person gatherings) can exacerbate such social risk factors for mental health challenges (Monteith et al., 2020; Summers-Gabr, 2020). Reducing any shame associated with mental health issues in rural communities is critical in seeking and providing appropriate resources. With such pre-existing mental health disparity and other system-level challenges, rural residents are at a heightened mental health risk during the pandemic.

One approach to addressing the mental health needs in rural communities is to increase the community's capacity to understand, recognize and address mental health challenges. Mental Health First Aid (MHFA), an evidence-based training course for the general public (Jorm et al., 2019), has been identified as an appropriate program to help improve rural mental health and treatment use (Talbot et al., 2017). The program offers basic mental health knowledge and teaches skills to assist people in coping with mental health challenges or getting connected to resources. The program is considered particularly pertinent to the rural context, as the program goals align well with some of the key rural mental health needs, such as reducing mental health stigma through improved mental health literacy, promoting healthy discussions of mental health issues, and empowering individuals to seek treatment or offer resources to others when necessary (El-Amin et al., 2018).

While there is extensive research on the effectiveness of MHFA (Hadlaczky et al., 2014; Morgan et al., 2018), relatively little is reported on the virtual delivery format of this evidence-based program. Studies involving an e-learning format of the MHFA curriculum do suggest that the virtual delivery of the training is effective as well. Jorm et al. (2010) conducted a randomized controlled trial and found that participants who received MHFA information via an e-learning CD or a manual showed reduced stigma and increased mental health knowledge, with the CD group taking more first aid actions than the waiting list group. Reavley et al. (2018) also conducted a randomized controlled trial involving both e-learning and blended (e-learning plus face-to-face) formats, and they found that both versions had positive effects compared to the control group on mental health knowledge, intention and confidence in helping a person, and personal stigma. There were minimal differences between the blended and e-learning versions, but course satisfaction ratings were higher for the blended course. A one-year follow-up showed that the blended course led to greater improvements in knowledge, confidence, and intentions to help a person compared to the e-learning course (Reavley et al., 2021). Overall, these findings suggest that the virtual delivery format can have similar positive effects as the in-person format.

With the ongoing COVID-19 pandemic, there has been a rapid increase in both the need for and delivery of virtual programs; nearly every community outreach effort, including delivering evidence-based programs, has transitioned in varying degrees to remote settings. We also adapted to the pandemic restrictions and delivered the MHFA program completely virtually. The primary objectives of this study are to share our experiences in implementing MHFA virtually during the pandemic in rural Maryland communities, present some evaluation outcomes from the participants, and offer implications for practitioners, researchers, and other community workers in rural settings.

Methods

The Maryland ROTA Project

Maryland Rural Opioid Technical Assistance (ROTA) is part of an initiative funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) and was established by the Maryland Extension in partnership with local and state organizations. The program model includes elements that address multiple levels of a spectrum of prevention (Cohen & Swift, 1999). Specifically, Maryland ROTA's programming promoted community education through group workshops on various topics related to the opioid crisis. The program model also included training of trainers in curricula such as Mental Health First Aid. The program fostered coalitions and networks by building partnerships with public health and substance use prevention stakeholders across the state. Finally, the program made overtures at changing organizational practices and influencing policy and legislation through its anti-stigma efforts in collaboration with the state Department of Health. By delivering training and technical assistance, Maryland

ROTA aimed to strengthen the ability of rural communities in Maryland to help understand and respond to the opioid epidemic.

MHFA Program Outlines and Expected Outcomes

Mental Health First Aid (MHFA) was originally designed as an 8-hour, in-person workshop to train individuals in assisting others who experience mental health or substance use-related crises. In this training, participants learn about the risk factors and warning signs for mental health and substance use concerns, action plans for helping someone in crisis and non-crisis situations, and additional resources they can share with those experiencing mental health and substance use challenges. Detailed studies and review articles have been published on MHFA's impact on public awareness and knowledge about mental health, stigma towards mental illness, and self-efficacy in helping ("first aid") behaviors (Hadlaczky et al., 2014; Morgan et al., 2018). A meta-analysis study of evaluation studies reported that participants showed increased knowledge in the identification of mental health problems and knowledge about effective treatment options, more positive attitudes toward individuals with mental illness, and an increased number of times offering support to another person with mental health problems (Hadlaczky et al., 2014). Additionally, a follow-up assessment of Extension agents working in rural communities showed that over 60% of the agents were using the skills (e.g., listening non-judgmentally, having a conversation about mental health) learned from the MHFA training in both work-related and non-work-related settings (Robertson et al., 2021).

MHFA Program Implementation of Virtual Delivery

The implementation of MHFA was conducted entirely online during the COVID-19 pandemic. The National Council for Mental Wellbeing (National Council) had been developing an updated version of the MHFA curricula, titled MHFA 2.0, with intentions of offering a blended/hybrid training format in April 2020. The new delivery option appealed to instructors because it offered a shorter workshop experience supplemented by self-paced pre-work to be completed by the participant. These plans were delayed due to the onset of the pandemic, which led to necessary adjustments allowing for an all-virtual delivery option. Instructors were trained in the standard in-person delivery format and were provided with a supplemental training webinar to prepare them for the online delivery of the course. The additional training outlined protocols for assisting participants triggered by course discussions, technical guidance for utilizing the Zoom platform, tips for conducting workshop activities in a virtual environment, and specifics regarding the procurement of digital materials for participants.

In July 2020, the National Council launched multiple program delivery options to remain flexible as instructors navigated pandemic restrictions. Instructors were permitted to offer the 2016 MHFA curriculum in in-person, blended, or virtual-only formats using the updated MHFA 2.0 curriculum. In-person delivery required instructors to provide participants with manuals purchased from the MHFA website, compile participant rosters in the MHFA instructor portal,

and deliver the class as an 8-hour workshop. Participants complete all necessary work during the in-person workshop, including pre-and post-testing and evaluations, to receive their certificates. Upon completing the course, instructors were then required to update attendance rosters in the instructor portal to officially register class members as certified Mental Health First Aiders.

In contrast, the blended and virtual delivery formats demand only 5.5 hours of live training because participants complete two hours of independent, self-paced pre-work prior to the live session. The pre-work served to lay a foundation regarding the impact of mental health challenges, the importance of early intervention, and the role of the mental health first aider.

Procedures for both blended and virtual were essentially the same, apart from the skills application workshop portion being conducted via Zoom for virtual-only delivery or in-person as required by the blended format. Instructors were required to create the course in the learning management system, collect registrations, enter all registered participants into the system, and purchase digital access for each participant in advance. Once enrolled, registered participants received access to the online learning management platform, prompting them to complete pre-work before attending the skills application workshop.

The 5.5-hour workshops focused on a review of the foundational materials, coupled with practice scenarios, where participants could apply the skills learned in the course. After the course, instructors were required to submit attendance while participants were instructed to return to the learning management system to complete the final steps. The final steps included a quiz and a course evaluation for the participant. Instructors were required to monitor this process and provide technical assistance to participants when needed, utilizing the National Council's support staff. Despite attempts to return to normalcy, the National Council offers instructors all three delivery format options in light of pandemic uncertainty.

Participants and Recruitment

Participants in the MHFA training were recruited in a variety of ways. Due to the specific aims of the grant-funded Maryland ROTA project, a substantial number of participants were recruited through direct marketing towards industry professionals in the area of substance use treatment and prevention (e.g., peer support professionals, caseworkers, and public health educators). We created and maintained a website with information on upcoming events and distributed monthly e-newsletters to the partners using our constantly updated listserv. We utilized social media (i.e., Facebook, Instagram) by uploading events and information flyers. Furthermore, the ROTA project developed several partnerships with behavioral health providers and non-profit groups in rural areas of Maryland. These health providers and non-profits would advertise MHFA workshops offered by ROTA to their client base. Finally, ROTA held a variety of public information sessions, where information about the opioid crisis in Maryland was shared, and the calendar of publicly available MHFA training sessions were advertised.

Data Collection

Online evaluation surveys were administered at the end of each session (post-event) and one month after the event (one month follow-up) to assess the program implementation. For the post-event assessment, the educators provided the anonymous link to the online survey using the chat function in Zoom and encouraged the participants to complete it. For the one month follow-up assessment, the data manager distributed the online survey via participants' email addresses, which were collected as part of the registration process.

Measures

Demographics

Participants' demographic information, including gender, race/ethnicity, education level, and primary profession, was collected post-event.

Evaluation

Post-event, participants were asked the following questions to assess the evaluation of the MHFA course: satisfaction ("How satisfied were you with the overall quality of this event?"), benefit ("I expect this event to benefit my professional development and/or practice."), and application ("I will use the information gained from this event to change my current practice."). Each of these one-item measures was on a 5-point Likert scale, ranging from *very satisfied* to *very dissatisfied* for the satisfaction measure and from *strongly agree* to *strongly disagree* for the benefit and application measures. Additionally, participants were asked whether they would recommend this event to a colleague (*yes* or *no*).

At follow-up, participants were asked the following questions: benefit ("The information from this event has benefited my professional development and/or practice."), application-current ("I have used the information gained from this event to change my practice."), and application-future ("I expect to continue using the information from this event in my future work."). These one-item measures were also on a 5-point Likert scale, ranging from *strongly agree* to *strongly disagree*. Participants were also asked whether they had shared the information gained from this event with their colleagues (*yes* or *no*). These items are from the Government Performance and Results Act (GPRA) post-event and follow-up surveys, which are provided by SAMHSA for their Technology Transfer Center (TTC) events.

Open-Ended Questions

As part of our efforts to incorporate participants' feedback and improve on our program implementation, we included four open-ended questions to the follow-up survey: (1) what about the event was most useful in supporting your work responsibilities, (2) what has improved in

your organization/practice because of this event, (3) how can Maryland ROTA improve its events, and (4) what learning format for the events would you suggest to be offered.

Data Analysis

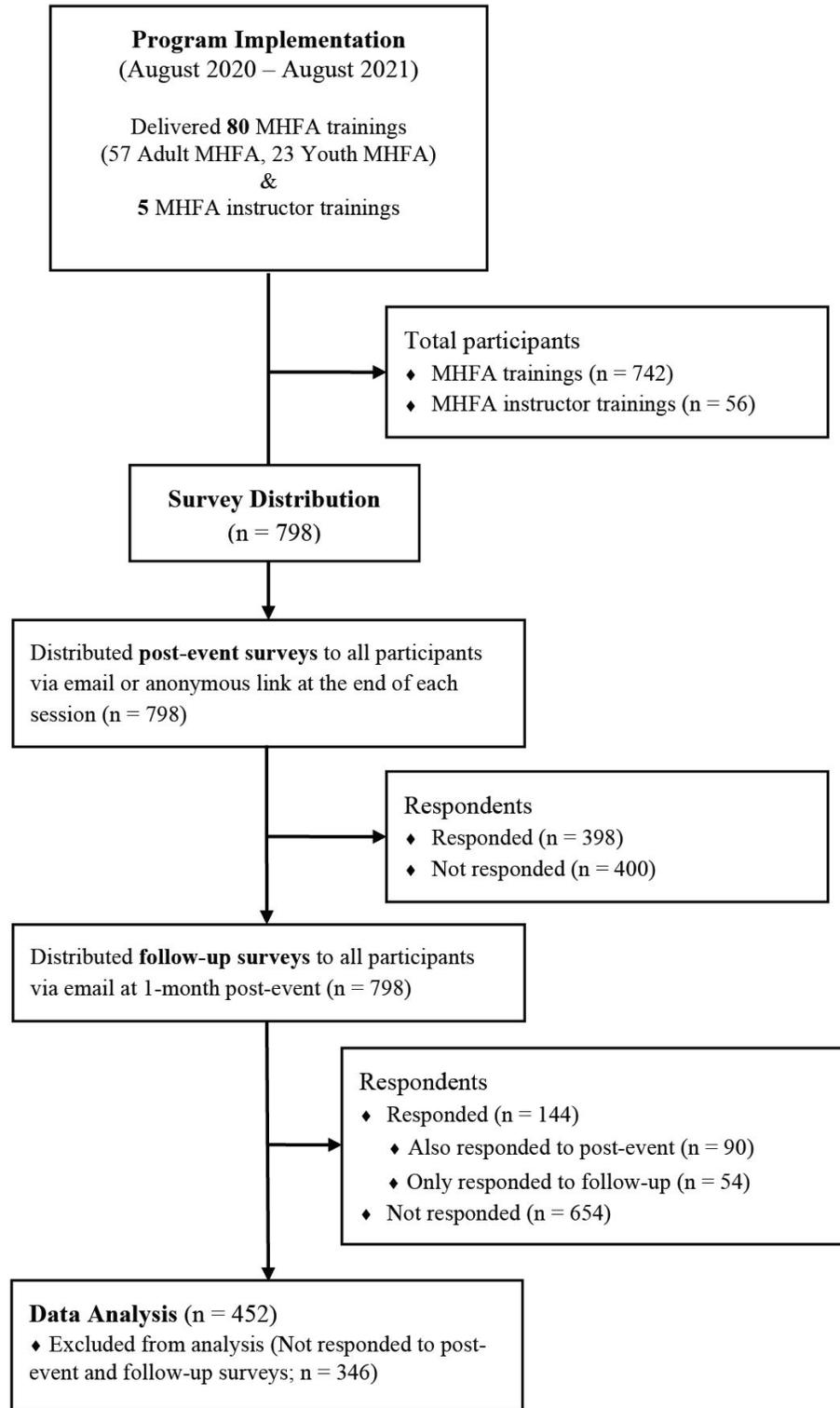
Participant post-event and follow-up responses were analyzed using IBM SPSS Statistics (Version 28) analytics software. Demographic data and program evaluation measures were summarized using descriptive statistics, including means and standard deviations. A paired *t*-test analysis was used to assess the difference in mean scores on the evaluation measures between post-event and follow-up. An inductive thematic analysis process was used (Braun & Clarke, 2006) to generate codes and themes from the entire dataset. First, the comments were compiled so that they could be read in their entirety. Next, the first author read and re-read the responses multiple times to familiarize himself with the data. The first author then conducted an initial coding of the themes for each open-ended question, grouping the codes into several categories. Upon reviewing the initial codes and themes with the other authors, several of the themes were consolidated into overarching categories for reporting. These categories are detailed in the results section. The qualitative analysis was conducted using Nvivo (QSR International, Version 12).

Results

Program Reach

Between August 2020 and August 2021, our team delivered 80 MHFA sessions (57 Adult MHFA, 23 Youth MHFA) and five MHFA instructor training sessions. We reached 742 participants for the regular MHFA sessions and 56 trainers for the MHFA instructor training sessions. These trainings were made possible with six trained instructors from our team and five trained instructors who partnered with us to help co-teach the sessions. Figure 1 provides an overview of the participant flow across program implementation, data collection, and data analysis.

Figure 1. Participant Flow Diagram



Demographic Characteristics of the Participants

Table 1 displays the demographic characteristics of the participants. A total of 398 participants responded to the post-event surveys, 90 (22.6%) of whom also responded to the one month follow-up surveys. Most of them were females ($n = 322$; 80.9%), followed by males ($n = 72$; 18.1%) and transgender or none of these genders ($n = 2$; 0.6%). The sample was predominantly White ($n = 270$; 67.8%), with others identifying as Black or African American ($n = 83$; 20.9%), Asian ($n = 12$; 3.0%), Hispanic or Latino ($n = 17$; 4.3%), or more than one race ($n = 10$; 2.5%). The majority of the participants had a bachelor's ($n = 105$; 26.4%) or a higher degree (master's or doctoral degrees; $n = 150$; 37.7%). Additionally, 54 participants responded only to the one month follow-up surveys. Since the demographic information was only collected during the post-event survey, the demographic characteristics of those who only responded to the follow-up surveys are not available.

Based on the zip code information ($n = 384$), we served participants from all counties in Maryland ($n = 362$) except Kent County, and we had some participants joining from other states as well ($n = 12$). Most ($n = 305$; 84.3%) of the participants in Maryland were from a rural county, according to the categorization of the Rural Maryland Council (*The Rural Maryland Council*, 2013). The counties with the highest number of participants were Allegany ($n = 47$; 13.0%), Wicomico ($n = 42$; 11.6%), St. Mary's ($n = 39$; 10.8%), and Washington ($n = 38$; 10.5%) counties.

Table 1. Sample Characteristics by Survey Completion, $N = 398$

	Total ($N = 398$)	Post-Test Only ($n = 308$)	Post-Test & Follow-up ($n = 90$)	p-value from χ^2 test (Post only vs. Post-Follow- up)
Gender, n (%)				.458
Male	72 (18.1%)	51 (16.6%)	21 (23.3%)	
Female	322 (80.9%)	253 (82.1%)	69 (76.7%)	
Transgender	1 (0.3%)	1 (0.3%)	0 (0.0%)	
None of these	1 (0.3%)	1 (0.3%)	0 (0.0%)	
Race, n (%)				.685
White	270 (67.8%)	206 (66.9%)	64 (71.1%)	
Black or African American	83 (20.9%)	66 (21.4%)	17 (18.9%)	
Asian	12 (3.0%)	11 (3.6%)	1 (1.1%)	
Hispanic or Latino	17 (4.3%)	12 (3.9%)	5 (5.6%)	
More than One race	10 (2.5%)	8 (2.6%)	2 (2.2%)	
Education, n (%)				.187
High School Diploma or Equivalent (GED)	35 (8.8%)	25 (8.1%)	10 (11.1%)	
Some College (no degree)	59 (14.8%)	47 (15.3%)	12 (13.3%)	
Associate's	40 (10.1%)	30 (9.7%)	10 (11.1%)	

	Total (<i>N</i> = 398)	Post-Test Only (<i>n</i> = 308)	Post-Test & Follow-up (<i>n</i> = 90)	p-value from χ^2 test (Post only vs. Post-Follow- up)
Bachelor's	105 (26.4%)	80 (26.0%)	25 (27.8%)	
Master's	120 (30.2%)	99 (32.1%)	21 (23.3%)	
Doctor of Pharmacy (PharmD)	4 (1.0%)	2 (0.6%)	2 (2.2%)	
Other Doctoral Degree or Equivalent (e.g., PhD, EdD, DPT)	26 (6.5%)	16 (5.2%)	10 (11.1%)	
Other	6 (1.5%)	6 (1.9%)	0 (0.0%)	
Primary Occupation, <i>n</i> (%)				.006
Social Services – General	94 (23.6%)	81 (26.3%)	13 (14.4%)	
Social Services – Mental Health	69 (17.3%)	46 (14.9%)	23 (25.6%)	
Educator	88 (22.1%)	61 (19.8%)	27 (30.0%)	
Students	45 (11.3%)	36 (11.7%)	9 (10.0%)	
Medical / Healthcare Provider	17 (4.3%)	12 (3.9%)	5 (5.6%)	
Other (Law, Administration, etc.)	80 (20.1%)	69 (22.4%)	11 (12.2%)	

Post-Event and Follow-up Sample Characteristics

As the proportion (22.6%) of participants who completed both the post-event and follow-up surveys was fairly low, we examined whether there were any differences in demographic characteristics and evaluation ratings between those who completed both the post-event and follow-up surveys ($n = 90$) and those who only completed the post-event survey ($n = 308$). Crosstabs of different demographic characteristics, including gender, race, education level, and primary profession, showed that the participants differed significantly in their primary professions ($p = .006$). Educators (30.7%) and those who work in social services related to mental health (26.1%) made up the majority of those who completed both the post-event and follow-up surveys, whereas those who work in the general social services field (26.6%) and other fields (i.e., law, administration, etc.; 22.6%) were represented more in the group that only completed the post-event survey (see Table 1). For the main evaluation ratings, we did not find any significant differences in scores for satisfaction, benefit, and application between those who completed both the post-event and follow-up surveys and those who only completed the post-event survey.

Program Evaluation

The participants' overall evaluation of the MHFA course was very positive. Among those who completed the post-event survey ($N = 398$), 93.5% ($n = 372$) of the respondents were satisfied or very satisfied with the overall quality of the event, 94.0% ($n = 374$) agreed or strongly agreed that they expected the event to benefit their professional development and/or practice, and 86.4% ($n = 344$) agreed or strongly agreed that they would use the information gained from the event to

change their current practice. Additionally, 97.2% ($n = 387$) of the participants responded that they would recommend the event to a colleague.

Among those who completed the one month follow-up survey ($N = 144$), 95.8% ($n = 138$) agreed or strongly agreed that the information from the event had benefited their professional development and/or practice, 81.3% ($n = 117$) agreed or strongly agreed that they had used the information gained from the event to change their practice, and 97.2% ($n = 140$) agreed or strongly agreed that they expected to continue using the information from the event in their future work. Moreover, 73.6% ($n = 106$) of them said they had shared the information gained from the event with their colleagues.

Post-event and Follow-up Evaluation

Based on the participants who completed both the post-event and follow-up surveys ($N = 90$), there was a significant decrease in the evaluation measures at follow-up. For example, the mean agreement score for the statement on benefit (i.e., “I expect this event to benefit my professional development and/or practice.”) decreased from 4.73 ($SD = .58$) at post-event to 4.49 ($SD = .59$) at follow-up (i.e., “The information from this event has benefitted my professional development and/or practice.”; $p = .003$), and the mean agreement score for the statement on applying the information (i.e., “I will use the information gained from this event to change my practice.”) decreased from 4.51 ($SD = .76$) at post-event to 4.17 ($SD = .83$) at follow-up (i.e., “I have used the information gained from this event to change my practice.”; $p = .001$). Among those who said they would recommend this event to a colleague ($n = 90$), 73.3% ($n = 66$) reported that they had shared the information gained from the event with their colleagues.

Open-Ended Feedback Results

Responses to the open-ended questions were grouped and analyzed for key themes. The questions and themes found from the participants’ responses are displayed in Table 2.

Usefulness of the Course

Four themes were identified using the 120 responses to the open-ended question asking what was most useful about the event in supporting work responsibilities. The most common type of response ($n = 51$) was gaining more knowledge and awareness about mental health. Participants felt more aware and knowledgeable in identifying signs and symptoms of mental health challenges. They found the information on available resources and their role as a first-aider helpful. The next most common type of response ($n = 41$) was on learning and applying the “how to” skills in the workplace and everyday lives. These participants mentioned making changes to their interactions, including active listening or using appropriate terms, and some also described incorporating the assessment tools in their workplace. Additional themes were the quality of the

presentation ($n = 11$) and other mixed responses (e.g., being MHFA certified, everything, N/A; $n = 17$).

Change in Organization or Practice

When asked what has improved in their organization or practice because of the event, the most common type of response ($n = 30$) was having more positive attitudes towards mental health. Many described being more empathetic and perceptive of others, and they felt more confident in stepping in to support mental health challenges. Being more knowledgeable about mental health issues ($n = 21$) was also a common theme. Participants appreciated having a better understanding of mental health challenges and knowing how to interact with clients or deal with situations. Some described more specifically changing their behavior or practice due to the event ($n = 23$). Examples include having better practices around supporting clients' active mental health episodes, engaging with students differently by using the tips learned, being a better listener, and using person-centered language. Additional responses ($n = 14$) included having more community partnerships, improving their mental health, or not yet having tangible changes.

Things to Improve about the Program

Participants were also asked whether our team could improve our events in any way. Most didn't have any suggestions ($n = 51$), mostly because they thought our events were great but also because they couldn't think of anything. Participants also provided various suggestions on course procedures or mode of delivery ($n = 21$), including wanting more opportunities for small group discussions, attending the event in person, or breaking down the event into shorter sessions. Publicity and offering more sessions were also important factors ($n = 11$), where participants wanted more sessions to be offered to a broader audience, and they wanted to hear about them.

Preference in Learning Format

When asked whether they had any suggestions for the learning format of the events, most participants expressed their preference for the virtual format ($n = 33$) or had no preference ($n = 31$). Participants who preferred the virtual format expressed that the format was most appropriate considering the pandemic situation and meeting virtually allowed participants from different counties to attend the sessions (e.g., "virtual works very well unless training is coming to western Maryland," "I would not have been able to attend the event if it was in-person"). They generally thought the virtual format worked well, where they were given access to the course material in advance and were still able to have a face-to-face discussion via Zoom. Fewer participants expressed their preference for the events to be in-person ($n = 8$) or hybrid ($n = 8$).

Table 2. Themes from the Open-Ended Questions

Question	Themes	Sample Responses
What about the event was most useful in supporting your work responsibilities?	Gaining Knowledge & Awareness (<i>n</i> = 51)	<ul style="list-style-type: none"> ● Better understanding of how mental health and opioid use go hand in hand ● Knowing more about available resources and what to do in various situations
	“How to” Skills / Applicability (<i>n</i> = 41)	<ul style="list-style-type: none"> ● A lot of things that I can apply to my current job and things to look for ● Communication strategies and redeveloping my own terminology ● How to apply the information to effectively work with youth
	Presentation (Content, Discussion, Presenters, etc.) (<i>n</i> = 11)	<ul style="list-style-type: none"> ● The online videos prior to the in-person event were interesting and informative, and the in-person event was engaging and informative. Both provided good reminders and some new tips ● The rich discussion has been food for thought and shaped how I implement the strategies in my work
	Misc (MHFA Certified N/A, etc.) (<i>n</i> = 17)	<ul style="list-style-type: none"> ● Being able to provide MHFA training in my community ● N/A
What has improved in your organization/ practice because of this event?	More Knowledgeable about MH Issues (<i>n</i> = 21)	<ul style="list-style-type: none"> ● Great knowledge on how to handle mental health challenges and crises ● I know more warning signs of someone struggling with mental health
	More Positive Attitude towards MH (<i>n</i> = 30)	<ul style="list-style-type: none"> ● Being more empathetic and perceptive of others ● Feeling comfortable talking to people about their mental health
	Changes in Behavior/ Practice to Support MH (<i>n</i> = 23)	<ul style="list-style-type: none"> ● I engage with students by using some of the tips I learned ● I have been better able to assist people with mental health-related issues. ● Listening non-judgmentally and how to encourage help
	Misc. (Community partnership, etc.) (<i>n</i> = 14)	<ul style="list-style-type: none"> ● Increased community partnerships ● My mental health
	None/Not yet/N/A (<i>n</i> = 19)	<ul style="list-style-type: none"> ● Hard to answer now with everyone working from home
How can the TTC Network (Maryland ROTA) improve its events?	None (Everything was great) or N/A (<i>n</i> = 51)	<ul style="list-style-type: none"> ● Continue what you are doing ● Nothing, I thought it was great
	Suggestions for Content (<i>n</i> = 10)	<ul style="list-style-type: none"> ● For me, I would have liked it if the examples were more specific to my particular setting of a school ● Maybe have some for specific occupational fields?

Suggestions on Course Procedures (<i>n</i> = 21)	<ul style="list-style-type: none"> • A little more time for discussion maybe. Also added time for more role-play and “practice.” • Encourage cameras on, full participating in Zoom events • Present a quiz in which there are different scenarios where the participant has to choose how to respond and what to do 	
More Offerings & Publicizing (<i>n</i> = 11)	<ul style="list-style-type: none"> • By reaching out to community-based organizations • Getting this training out to a broader group would help • More marketing! I wouldn't have known about it if I wasn't notified through personal email. 	
What learning format for the events would you suggest to be offered?	In-person (<i>n</i> = 8)	<ul style="list-style-type: none"> • In-person if possible, but online is good too • When it becomes possible, in house
	Virtual (<i>n</i> = 33)	<ul style="list-style-type: none"> • Remote is key for now because of the immuno-sensitive / compromised • Stick with online because most of us in Maryland have to travel • Virtual options are a great way for more people to participate
	Hybrid (<i>n</i> = 8)	<ul style="list-style-type: none"> • Hybrid - virtual for foundational learning, in-person small group discussion
	Misc. (No preference, N/A) (<i>n</i> = 30)	<ul style="list-style-type: none"> • Any available • As much emphasis on the discussion as possible

Discussion

Positive Evaluation of MHFA

The overall evaluation of the MHFA virtual sessions was very positive. Most participants were satisfied with the overall quality of the event, which was also supported by the fact that almost every participant said they would recommend the event to a colleague. Participants also found the information gained from the session to be beneficial and applicable to their professional development and practice. Specifically, they described gaining more knowledge about mental health, such as issues that youth may be experiencing or substance misuse that often co-occur with mental health challenges and their role as a first-aider, which included identifying signs and symptoms or initiating conversations about mental health support. These results are consistent with previous findings indicating the program's effectiveness in increasing mental health knowledge and confidence in helping a person with a mental health problem (Hadlaczky et al., 2014; Morgan et al., 2018). Our findings also support Reavley et al.'s (2018, 2021) study that showed the effectiveness of the virtual format of the training and how it was positively received by the participants.

It is important to note that while such positive evaluation scores at post-event statistically significantly decreased at one month follow-up among those who completed both surveys, the ratings remained considerably high at follow-up, with all measures having scores higher than 4 out of 5. Among those who completed the follow-up survey, more than 95% of the participants agreed that the information from the event had benefited their professional development and practice, and more than 80% of them reported that they had used the information gained from the event to change their practice. These findings suggest the positive impact that MHFA has on participants is mostly sustained one month after the event, and many participants were able to immediately apply the knowledge and skills learned during the session to their practices. Such findings support the previously well-established literature that demonstrates MHFA's effectiveness in increasing participants' knowledge of mental health, competence in supporting difficult situations, and decreasing stigma (McCormack et al., 2018, Morgan et al., 2018).

Applying the Program Content in Their Practices

In their qualitative responses, participants articulated ways that they incorporated the information gained from the event into their practices. These included attitudinal changes, such as feeling more confident in supporting mental health needs and being more mindful in their daily interactions. There were behavioral changes as well, where participants described including a procedure in their practice routines (e.g., trauma-informed program planning, asking patients directly whether they thought about suicide) or having more conversations about mental health in the workplace. These are meaningful findings in that participants were reporting concrete examples of changes made as a result of attending the MHFA sessions, and such examples of application supplement the quantitative measures in demonstrating the benefits of delivering evidence-based programs. Further analysis of the qualitative comments provided by participants revealed that the program was perceived as useful in a variety of ways across professional groups. This information is helpful for practitioners aiming to scale up their implementation of MHFA because it supports the broad applicability of the program. Notably, these professional categories included healthcare professionals who may have already had some familiarity with mental health topics from prior training or education. This suggests that the information contained in MHFA may be useful as part of ongoing education for a variety of allied health professionals in addition to the general public.

Fully Virtual Delivery as a Stopgap Measure

Before the pandemic, MHFA had not been delivered in a fully virtual format. However, the need for mental health services remained comparatively high during the pandemic (Czeisler et al., 2020). The ability to pivot toward fully virtual delivery placed the skills to respond to mental health challenges and crises in more people's hands at a time when they needed it the most. Furthermore, when asked about their preferences, a large percentage of participants remarked that virtual delivery was their preferred method of receiving MHFA instruction. This is important

feedback, especially for delivery to audiences in sparsely populated regions. Long driving distances to a site for in-person instruction may pose barriers to attendance, which virtual delivery overcomes. By providing this training to a variety of residents and service providers in rural areas, the potential for an indirect reach of our programming grew. Each service provider reaches even more people in their daily work than we could reach via our own virtual delivery scheme. In this way, our pivot to virtual programming combined with our recruitment strategies helped us meet particularly high demand for mental health support in underserved communities during a highly stressful period.

One of the many benefits of MHFA online delivery was increased participation due to ease of access. Online training proved desirable for many as it removed geographic barriers, eliminated travel expenses, eliminated weather-related travel concerns, and ultimately saved time. This appeared particularly true for MHFA participants, given that before the pandemic and the MHFA 2.0 update, classes required a full-day commitment outside of the office or home. The addition of independent pre-work as a prerequisite to the live workshop also proved to be very helpful. All participants entered the workshop with a foundational knowledge of mental health issues and MHFA strategies. This foundational knowledge allowed for more robust conversations throughout the workshops.

Adjusting to this virtual format was not without challenges, as instructors were forced to become adaptable to many situations that were previously of no concern. Instructors had to develop intuitive abilities when managing their workshops so that all participants felt supported and cared for should someone feel triggered by the subject matter. In addition to adjusting how instructors “read a room,” it was evident that there will always be those who simply attend without engaging in the activities with virtual delivery. The virtual delivery format also required more administrative action on instructors as multiple online platforms were needed to create courses, complete attendance records, purchase materials, and track evaluations.

Limitations of the Present Study

The present study has some noteworthy limitations. First, our data do not include assessments of specific helping behaviors engaged in by the participants. Our measure of application is global and only asks whether participants have applied or plan to apply what they learned in the MHFA courses. Second, the study follow-up period is rather short, at only one month post-course. Follow-up data at longer intervals would strengthen our findings. Finally, the present study does not include measures of specific changes in participants’ knowledge or attitudes. However, there are extant studies that provide evidence for these changes in virtual delivery (Jorm et al., 2010; Reavley et al., 2021).

Future Implications and Considerations for MHFA in Rural Settings

Implementation of MHFA in virtual or hybrid format offers an opportunity to build community capacity to address mental health needs in rural settings. We provide several suggestions and considerations for successful implementation based on the participants' feedback and our team's experience delivering the program virtually:

- Several participants mentioned that they found out about the trainings by word of mouth and wished that there were more visible notices provided about the offerings. Local community partners would be a great point of contact to spread the information about events being offered. Additionally, attending virtual community action meetings and other relevant virtual events, as well as making continued efforts to publicize about the events via social media and e-newsletters, were a central part of our program implementation.
- Facilitators can increase the buy-in from the participants by emphasizing that MHFA is a way to enhance the community's ability to support itself. Such an emphasis would align with rural communities' cultural emphasis on self-sufficiency - not having to depend on "outsiders" or urban areas for resources. This was evidenced in our participants' acknowledgment of having more community partnerships and improving their capacity to interact with a person experiencing a mental health challenge as a result of attending the trainings.
- Suggesting the program as mandatory staff training for capacity building is one approach that we have found to be well-received by organizations. Based on our experience, more employers are seeing the need for this type of professional development, and we can keep that momentum going through a series of training opportunities. When expanding partnerships, identifying potential key partners who would be committed to being trained as instructors and delivering the program locally would be a great asset.
- We also recognize that offering the training in multiple formats will become increasingly important. As COVID restrictions evolve, organizations may be transitioning back and forth between virtual and in-person operations. Moreover, not all instructors may feel comfortable delivering the training fully virtually, so capitalize on that by having them offer in-person or hybrid formats. Our participants' responses suggested that, despite the gradual lifting of the COVID restrictions, they appreciated having virtual options because of better accessibility. Particularly for the rural context, however, it is important to consider accessibility factors, including limited broadband access, digital literacy of the participants (e.g., familiarity with virtual interface), and device access.

- Consistent communication and marketing efforts need to be put into publicizing the events offered. A few participants mentioned they wanted more notifications about the events we are offering because they were only able to attend via word of mouth from co-workers or a personal connection with the educator.

Conclusion

Pre-existing mental health disparities among rural populations, coupled with the mental health impacts of COVID-19, call special attention to the mental health needs of rural residents in the U.S. Building community capacity through delivering evidence-based programs and training community members is one approach to addressing such health problems. The Maryland ROTA project was launched right before the COVID-19 pandemic hit the U.S., resulting in the need to adjust our implementation strategies to deliver evidence-based programs entirely virtually. MHFA was one of the programs offered by Maryland ROTA. In contrast, the effectiveness of the MHFA program is well-documented. Limited information is available on this new virtual delivery of MHFA. Our team had this opportunity to be at the forefront of implementing the program with a newly revised delivery option as we navigated the restrictions and uncertainties associated with the pandemic. The data included in this study replicate and expand upon the evidence for the effectiveness of virtual delivery found in other countries (Jorm et al., 2010; Reavley et al., 2021) in two notable ways. First, our data are based on the utilization of a newly updated version of the MHFA curriculum. Second, our data provide implementation outcomes from a time period of population-wide mental health challenges and needs.

Findings from our preliminary evaluation data illustrate the virtual program's positive impact on participants' knowledge, attitudes, and skills in addressing mental health problems. In addition, the program in virtual format was generally well-received by the participants. Findings suggest that the virtual format of MHFA can be effective and serve as an important resource to address rural mental health disparities by reaching rural populations beyond the pandemic. Despite the overall positive experience, several factors need to be considered for future research and practice efforts. We learned that building sustainable partnerships with local community organizations is foundational to a successful implementation. It is critical to communicate with partners to meet their specific local needs when offering these training opportunities. While we successfully adapted to the pressing need for entire virtual operations, we also recognize the importance of staying flexible as the uncertainties with COVID-19 circumstances persist; factors such as Zoom fatigue, limited broadband access and digital literacy of audiences, and gradual preference to return to in-person sessions, need consideration when strategizing for program implementation. Future research and practice efforts should account for such factors to effectively deliver interventions for mental health needs in rural settings.

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