Psychological Services

Remote Mental Health First Aid Training for Correctional Officers: A Pilot Study

Pamela Valera, Sarah Malarkey, Madelyn Owens, Noah Sinangil, Sanjana Bhakta, and Tammy Chung

Online First Publication, April 11, 2024. https://dx.doi.org/10.1037/ser0000860

Psychological Services

ISSN: 1541-1559

https://doi.org/10.1037/ser0000860

Remote Mental Health First Aid Training for Correctional Officers: A Pilot Study

Pamela Valera[1], Sarah Malarkey[1], Madelyn Owens[1], Noah Sinangil[1], Sanjana Bhakta[2], and Tammy Chung[3]

[1] Department of Urban-Global Public Health, Rutgers School of Public Health
[2] National Council for Mental Wellbeing, Washington, DC, United States
[3] Rutgers Institute for Health, Health Care, Policy, and Aging Research, New Brunswick, New Jersey, United States

Mental health first aid (MHFA) training is a low-cost, evidence-based intervention that teaches trainees to recognize signs of mental distress. Thirty correctional officers (COs) were recruited to participate in a remote MHFA intervention study. The COs were divided into three MHFA training sessions, with no more than 10 COs per group. Data collection assessments included pretest and posttest surveys and a focus group meeting. Of the 30 eligible CO participants, 27 completed the study, including follow-up assessments. Nine COs participated in a focus group meeting—one third ($n = 9$) of the CO participants identified as female, and the remaining identified as male. Most CO participants self-identified as White ($n = 17$), and two thirds ($n = 18$) of the CO participants were 35–54 years old. There was a strong military influence, with about close to half (48%) of COs identifying as a veteran. A paired sample t test was used to analyze whether there were any differences in mental health knowledge scores from pre- and postintervention. There were no significant differences between the pre- and postintervention results for the five MHFA knowledge items. The Wilcoxon signed-rank test was used to analyze differences in pre- and postintervention data for mental health referral items. From pre- to posttraining, COs reported that it would be easier to make a mental health referral for someone experiencing a mental health challenge ($Z = -2.087$, $p = .037$). At 12 weeks, COs referred 2.6 (*SD*: 4.30, range 1–20) people incarcerated for mental health services. The reasons for referral included: "suicidal thoughts," "experiencing anxiety over being incarcerated during COVID," and "considering self-harm." A phenomenological approach was used to analyze the focus group meeting. The themes identified were: (a) COs experience with MHFA training was viewed positively (facilitators); (b) there is a need to improve mental wellness in correctional settings (barriers); and (c) mental health referral process for incarcerated individuals needs enhancement when implementing MHFA (barriers). MHFA training for COs is necessary to equip COs with the skills to safely support and refer incarcerated people experiencing a mental health crisis.

Impact Statement

The mixed methods study found a positive association between Mental Health First Aid training and an increase in correctional officers attitudes regarding referring people who are incarcerated to mental health professionals. Mental Health First Aid training can be helpful for correctional officers to equip them with appropriate skills to identify mental health challenges and substance use in correctional settings. However, correctional officers also report that the systems currently in place to connect people struggling with mental illness must be revamped.

Keywords: mental health first aid, correctional officers, criminal justice, feasibility study, COVID-19

Supplemental materials: https://doi.org/10.1037/ser0000860.supp

The United States has the highest incarceration rate in the world; close to 2 million people are incarcerated in jails and prisons (Sawyer & Wagner, 2022). Nearly half the prison population suffers from mental disorders, and over a quarter from substance use disorders (Barnert et al., 2020; Galanek, 2015; Morgan et al., 2018; Robinson et al., 2020). Previous studies have demonstrated that people who are incarcerated and exhibit mental health symptoms during incarceration face marginalization due to widespread stigma, discrimination, and misconception related to mental health (Barnert et al., 2020; Dvoskin & Spiers, 2004; Greenberg & Tracy, 2020; Hawks et al., 2020). These stressors contribute to the prevalence and severity of mental health symptoms in prison (Greenberg & Tracy, 2020). Specifically, the COVID-19 pandemic has placed additional stress on people who are incarcerated, further exacerbating their mental health (Johnson et al., 2021; Plugge, 2021). Lockdown measures to prevent the spread of COVID-19 have increased

Pamela Valera https://orcid.org/0000-0002-0095-9209

Correspondence concerning this article should be addressed to Pamela Valera, Department of Urban-Global Public Health, Rutgers School of Public Health, 1 Riverfront Plaza, 10th Floor, Newark, NJ 07102, United States. Email: pv181@sph.rutgers.edu

confinement and isolation in small and confined spaces. This lack of human contact stems from suspending family visits, restricting movement in and out of cells, and decreased physical activity. In turn, a significant increase in mental health crises among people who are incarcerated has required costly interventions leading to higher rates of self-harm and suicide. In fact, Gétaz et al., 2021 found that suicide attempts in prison increased by 57% during the COVID-19 pandemic. Further, previous research has shown a negative association between time outside of the cell and mental illness (Brinkley-Rubinstein et al., 2019; Brown, 2020; Favril, 2021; Haney, 2018).

Correctional officers (COs) are responsible for ensuring that the basic needs of incarcerated people are met. This includes ensuring that people who are incarcerated are fed, engage in recreational activities, and have access to educational and medical care services. COs are the first line of emergency response in the correctional setting and as a result, are the first to observe significant changes in an incarcerated person's mental health. Specifically, COs are considered the first responders when someone has a mental health crisis (Dvoskin & Spiers, 2004; Hawks et al., 2020). Because COs have more contact with incarcerated individuals experiencing mental health symptoms than anyone else (Fazel et al., 2016; Ford, 2017; Galanek, 2015), COs are the first to observe: (a) significant changes in an incarcerated person's mental health, including changes in behavior (e.g., decrease in appetite, increase in hostility) (Galanek, 2015; Lamb & Weinberger, 2005); (b) deterioration in inmate self-care; and/or (c) an increase in aggressive behavior (Dvoskin & Spiers, 2004; Galanek, 2015; Lamb & Weinberger, 2005). However, COs report feeling ill-prepared to identify someone demonstrating mental health challenges (Meyer, 2018). COs have the potential to play a critical life-saving role and can have a significant impact by connecting people who are incarcerated with appropriate mental health professionals before crises happen or when changes in behavior and symptoms first start to appear.

While Crisis Intervention Teams (CIT; designed for police officers to better handle calls involving persons with mental health crises in the community) have been adapted to COs who work in prisons, studies on CIT training for COs are limited and show mixed results (Booth et al., 2017; Canada et al., 2012; Haigh et al., 2020; McNeeley & Donley, 2021; National Institute of Corrections, 2010; Thomas & Watson, 2017). CIT for police officers in mental health clinics has significant barriers that make scaling these solutions extremely difficult. CIT requires intensive training for police officers to be certified, which is directed toward responding to mental health calls in the community (National Institute of Corrections, 2010). Typically, police departments will only train a few officers in CIT and make a specific CIT officer unit. There are also feasibility and efficacy concerns regarding offering CIT within correctional settings (McNeeley & Donley, 2021). The mixed results suggest that CIT is may not be an optimal for training COs to handle mental health crises in the prison setting and to address the need for COs to identify the signs and symptoms of mental health crises in incarcerated people (McNeeley & Donley, 2021).

Description of Mental Health First Aid

Mental health first aid (MHFA) is a manualized evidence-based intervention that aims to equip trainees to identify, understand, and respond to others experiencing mental health distress (Bond et al., 2015; Kessler et al., 2005; Mental Health First Aid Australia, 2022; Morawska et al., 2013; Morgan et al., 2018; Reavley et al., 2018). MHFA was created in Australia in 2000, and MHFA United States was adapted from the original Australian program in 2008 (Mental Health First Aid USA, n.d.). The MHFA has been shown to increase trainees' mental health literacy; help trainees identify, understand, and respond to signs of mental health distress; and identify and understand helping behaviors. MHFA training consists of seven segments covering depression, anxiety, psychosis, substance misuse, self-harm, and suicide (Bond et al., 2015; Kessler et al., 2005; Mental Health First Aid Australia, 2022; Mental Health First Aid USA, n.d.; Morgan et al., 2018). Each module describes different mental health conditions and their frequent signs and symptoms, with video presentations of individuals recovering from the disorders, supplemented by small-group, interactive activities. Each segment covers the five-step action plan that a trainee can use when they interact with an individual is experiencing signs and/or symptoms of a mental health challenge or substance use: (a) *Assess* whether the person is at risk for suicide (based on warning signs and asking whether the person is considering suicide); (b) *Listen* to the individual and discuss how they feel; (c) *Give* the person information on resources and effective treatments available; (d) *Encourage* the individual to take steps for self-care, and (e) *Encourage* the individual to seek professional help alongside providing specific referral information and assistance *(Assess, Listen, Give, Encourage, and Encourage)*. MHFA emphasizes that self-help is not an adequate substitute for professional help in potential crises (Bond et al., 2015; Kessler et al., 2005; Mental Health First Aid Australia, 2022; Morgan et al., 2018) and be viewed as the early beginnings of recovery and support. Some examples that exceed the need for self-help are the following: experiencing suicidal thoughts and behaviors, appearing to be on the verge of self-harm, and when an individual may be in a state of psychosis (Bond et al., 2015; Kessler et al., 2005; Mental Health First Aid Australia, 2022; Morgan et al., 2018).

Rigor of Previous Evidence on MHFA Interventions

Much of the research on the impact of MHFA has been focused on adults in communities and the workplace (Kitchener & Jorm, 2002; Morawska et al., 2013; Morgan et al., 2018, 2019; Reavley et al., 2018). MHFA has been proven effective at improving mental health literacy for those in the higher education setting, first responders, firefighters, and the military (Evans et al., 2021; Hewson et al., 2020; National Council for Mental Wellbeing, 2022; Scarr, 2015). These results indicate the clear potential of MHFA to increase CO ability to effectively respond to an inmate experiencing a mental health crisis.

This study aimed to: (a) describe the experiences of a remote MHFA training among COs; and (b) identify the barriers and facilitators of implementing MHFA in prison setting during COVID-19 pandemic. As part of this aim, changes in CO's mental health stigma levels were assessed at baseline and 12 weeks postintervention. Due to COVID-19 pandemic and challenges with accessing the facility 3 months prior to the study, only frequency of mental health referrals performed by COs and reasons for mental health referral were assessed postintervention.

The study was guided by the following research question and three working hypotheses. The research question was: In COs working in a state prison setting during COVID-19 pandemic, will

a MHFA intervention for correctional officers' result in an increase in mental health referrals for inmates experiencing mental distress? The three working hypotheses were: (a) there is a negative association between exposure to MHFA training and a COs mental health stigma; and (b) there is a positive association between exposure to a MHFA training and the frequency of inmate referrals COs make to the prison's mental health professionals.

Method

Participants

The COs who participated in the MHFA for adults remote training worked at a northeastern maximum security state prison facility. To participate in the study, COs were required to meet the following eligibility criteria: (a) ≥18 years of age; (b) able to speak, read, and write in English well enough to provide informed consent and complete the study; (c) have at least 1 year of service at the prison facility; and (d) employed full time in a CO capacity. The exclusion criteria were: (a) having less than 1 year of service worked as a CO; (b) inability or unwillingness to complete MHFA training; (c) inability or unwillingness to use videoconference technology; and (d) unwillingness to consent to video and audio recording during the training sessions.

An advertisement flyer approved by the researcher's Institutional Review Board (IRB) was distributed to the superintendent of the prison to help recruit COs. The superintendent distributed the flyers and collected the contact information of COs who expressed interest in participating. A total of 43 COs volunteered for the study, and the superintendent narrowed the list down to 30 COs. No guidance was provided to the superintendent on selecting the 30 participants. The 30 COs were assigned to one of the three MHFA training dates based on availability. The list provided by the superintendent included alternatives for each training group in case someone could not attend. Participation in the study was voluntary and participants could withdraw from the training at any time. Participating COs provided informed consent in accordance with the IRB guidance and signed-consent forms prior to their study participation. Of the 30 COs assigned to a training session, three COs were unable to participate due to personal reasons.

In total, 27 COs participated in all three MHFA groups; group one had 10 participants, group two had nine CO participants, and group three had eight CO participants. Two thirds of the participants ($n = 6$) were 35–54 years old. Four participants (44.4%) identified as Caucasian/White, three (33.3%) were Black/African American, and two (22.2%) were Hispanic/Latino. Most of the participants ($n = 8$) were men. About three quarters ($n = 21$) of the participants reported having at least some college degree or higher. Five participants (55.6%) were ranked as officers, followed by two (22.5%) lieutenants, one (11.1%) sergeant, and one (11.1%) captain. Last, two thirds of the participants ($n = 6$) reported 3–10 years of service as a CO and one-third ($n = 3$) reported 16–30 years. Sixty-three percent ($n = 17$) reported their rank as an officer, followed by 11.1% ($n = 3$) reported as a sergeant, 18.5% ($n = 5$) reported as a lieutenant, and 7.4% ($n = 2$) reported as captain. There was a strong military influence, with about one half (48.1%) of CO's having veteran status. The majority (66.7%) of the CO's worked as a CO for 3–10 years (see Supplemental Material A).

At the end of each instructor-led MHFA training, participants were invited to participate in the focus group. If they were interested, they reached out to their supervisor to express their interest in participating. The supervisor then selected the participants based on their availability to attend the focus group meeting. Ten of the 27 participants were selected to participate in a focus group discussion 2 weeks after the last MHFA training. Of the 10 participants selected, nine of the participants attended the focus group meeting.

Materials

The MHFA training and focus group meeting were conducted using a Health Insurance Portability and Accountability Act (HIPAA)—compliant platform, Zoom. Participants used the MHFA Connect online platform and the MHFA for adults course to access their training materials. MHFA Connect provided participants access to the MHFA for adults course where they completed the self-paced pre- and postwork for the course and accessed training materials including digital copies of the MHFA for adults manual, participant processing guide (workbook to complement training), and self-care action plan.

The prework for the MHFA for adults course consisted of an online evaluation and a 2-hr self-paced course that participants completed at their leisure before the instructor-led segment of the course. The self-paced content topics were mental health and mental disorders, the role of the first aider and self-care, common mental disorders in the United States, recognizing signs and symptoms of mental health challenges, mental health first aid quiz, and having a supportive conversation. The postwork was completed after the instructor-led segment of the course and consisted of a final knowledge exam of course material and the postevaluation of the course. Participants need to score a 60% or higher score to pass the final knowledge exam.

During the prework segment of the course, participants were introduced to the MHFA for adults manual, participant processing guide (PPG), and self-care action plan. The MHFA for adults manual provides in-depth information on the MHFA program, mental health in the United States and substance use conditions. The manual includes three sections: (a) Introduction to MHFA; (b) MHFA for Mental Health Challenges; and (c) MHFA for Crises. In addition to the manual, the PPG provided activities for the participants to complete throughout the course. In the PPG, participants could take notes and write down their thoughts, feelings, or any questions they had throughout the training. Last, the self-care action plan template was a sheet used to help participants brainstorm a self-care plan during the training to encourage wellness.

MHFA instructors used the MHFA for adults slide deck, a PowerPoint presentation provided by the National Council, to conduct the trainings. The slide deck consists of seven segments, including the curriculum videos used to supplement participants' learning. The length of each component varied: Segment 1 (35 min), Segment 2 (25 min), Segment 3 (60 min), Segment 4 (30 min), Segment 5 (30 min), Segment 6 (130 min), and Segment 7 (20 min).

The MHFA for adults slide deck includes scenarios describing individuals experiencing a mental health challenge or crisis. These scenarios allow participants to practice and apply what they learned in the course, especially the five-step Assess, Listen, Give, Encourage, and Encourage action plan. Participants had the option to choose which scenario they wanted to work on throughout the training. The topics of the scenarios were depression, posttraumatic

stress disorder, suicide, and substance use. An example of the content of an early warning sign scenario focusing on depression included the following:

> Alice has been a Correctional Officer for 18 years. They have worked in numerous correctional facilities and are well-known in their area. Unfortunately, throughout her many years as an officer, they have witnessed countless acts of brutality within facilities. Due to understaffing, Alice has had to take on more shifts within the past few weeks. Their usual level of energy and mood has started to decrease. Recently, they have been saying how much they miss spending time with their family. Alice occasionally gets sad when thinking about her children and feels like missing out on quality time. You are Alice's colleague. What would you say to them?

The data collection instruments included pre- and postwork for the MHFA for adults course, a pretest mental health web-based survey at baseline and posttest follow-up survey 12 weeks following CO training, and one focus group meeting.

The preintervention survey consisted of two sections: demographic information and the MHFA knowledge check. Demographic variables included: age, gender, sexual orientation, Hispanic/Latino origin, race, marital status, highest level of education completed, average hours worked per week, work shift (i.e., day, evening, midnight), yearly income, length of employment in prison facility, rank of CO, institutional security level (minimum, medium, and maximum), length of commute to work, military status, military branch, family member veteran status, and if COs were searching for a new job. The MHFA knowledge check were questions that measured participants' knowledge, thoughts, and beliefs about the MHFA course. The mental health knowledge check include the following items: (a) "Which of the following statements is true about the Assess, Listen, Give, Encourage, and Encourage action plan?"; (b) "Which of the following may be an early indicator that an individual is experiencing a mental health or substance use challenge?"; (c) "Which of the following is NOT a key factor of recovery?"; (d) "Which of the following actions is within the scope of a first aider?"; and (e) "How can a first aider cope with feelings of discomfort or frustration associated with providing MHFA?" Each correct response to the item was worth 20 points, for a correct total score of 100 points. The MHFA knowledge check is also included in the prework on MHFA Connect. There was a 100% response rate for the preintervention survey.

The posttest survey collected information about the knowledge and attitudes regarding mental health (e.g., stigma) and MHFA. The survey consisted of two sections: MHFA knowledge check and referral questions. The mental health knowledge check section included the same questions that were previously described for the pretest survey. The referral questions section asked open-ended questions about mental health referrals in the prison facility. The open-ended questions were: (a) "Since your last MHFA training, how many incarcerated individuals did you refer to the mental health program at the facility?"; and (b) "What were the reasons you had to make a referral?" Memory recall of mental health referrals at baseline was challenging for study participants and therefore was not collected during the pretest survey.

Additionally, two questions from the pre- and postevaluation from National Council were used to examine perceived sentiments toward referring someone to a mental health professional: (a) "Referring someone showing signs and symptoms of a mental health or substance use challenge(s) to practical resources (e.g., self-help information, crisis hotline number)," and (b) "Referring someone experiencing a mental health or substance use challenge(s) to a mental health professional is:" Both responses were scored on a 5-point Likert scale: 1 = *extremely easy*, 2 = *fairly easy*, 3 = *neither difficult nor easy*, 4 = *fairly difficult*, and 5 = *extremely difficult*. We refer to these items as mental health referral proxy items.

A focus group meeting was conducted posttraining to gauge CO experience with MHFA and the tailored scenarios. Focus group topics included experiences as a CO, mental health, mental health stigma, job functions as a CO, feedback on MHFA training, and their experiences working during COVID-19 and how MHFA can be used in their job during COVID-19. One example of a focus group question was "How does incarceration affect mental health among people who are incarcerated?" (See Supplemental Material B).

Procedure

This study was approved by Rutgers University IRB. The MHFA intervention pilot study was conducted with COs from October 2021 to February 2022 at a northeast maximum security prison facility. MHFA for adults training is adapted to be delivered either virtually or in-person. Due to the COVID-19 pandemic, the training was delivered virtually for the health and safety of COs, people who are incarcerated, and the study staff. This study involved the implementation of three MHFA for adults remote trainings with correctional officers. MHFA training was conducted 1 day a week for each group for three consecutive weeks. Approximately 6 hr were instructor-led, and 2 hr were devoted to lunch and mental health breaks. The instructors for these trainings were certified by the National Council and underwent rigorous MHFA for adults instructor training.

After recruitment, participants were added to MHFA Connect platform to complete mandatory prework and a pretest survey link was emailed to CO participants at least 1 week before their assigned training date. Participants were required to complete the pretest and prework survey prior to the training.

At the beginning of each instructor-led training session, prison staff collected and emailed the participants signed-consent forms, which were then uploaded to a secure box folder, a cloud-based storage application approved by Rutgers University IRB. MHFA instructors checked to see if participants completed the mandatory prework and the pretest survey. All 27 participants fulfilled the requirements.

Due to the lack of resources from the facility, participants were not able to have their own individual computers to complete the instructor-led training session. Consequently, the participants for each group congregated in a private conference room at the prison facility to attend the training. Participants viewed the MHFA instructors on a large screen with video and audio. MHFA Instructors and study staff delivered the training using Zoom from their respective remote settings. Participants were not able to use Zoom's "chat" function because they did not have access to an individual computer. When participants had questions, they were encouraged to raise their hands. The lack of resources of individual computers and inability to use the chat function on the computers deviates from the original intent of the MHFA program. However, participants still verbally voiced questions, comments, and concerns with the trainers and among each other throughout the training. Furthermore, every participant received a physical copy of their Participant Processing Guide. After the end of the instructor-led

training session, participants were required to complete postwork on the MHFA Connect platform to become a certified mental health first aider. The posttest survey link was distributed via email to CO participants 12 weeks after completing MHFA training. Participants were required to complete this survey to evaluate potential changes in knowledge and attitudes regarding mental health (e.g., stigma) and MHFA.

The focus group was conducted 2 weeks after the last instructor-led MHFA training session. The focus group meeting lasted approximately 2 hr. The participants were seated in a conference room at the prison, and the facilitators conducted the focus group in their respective remote locations via Zoom. Two of the researchers were the facilitators, and an additional researcher was the notetaker during the focus group meeting. The focus group was recorded using Zoom and transcribed verbatim using NVivo (Lumivero, 2023). The transcript was reviewed for accuracy against the Zoom recordings and notes taken by the focus group facilitators.

Descriptive analysis included frequencies and proportions for demographic characteristics. Means and standard deviation (*SD*) were used to report mental health referrals. A paired sample *t* test was used to analyze whether there were any differences in mental health knowledge scores pre- and postintervention. In addition, a Wilcoxon signed-ranks test was used to analyze the differences between the pre- and postintervention results for the mental health referrals proxy items.

Given that the purpose of the study was to: (a) understand how COs experience the MHFA training and (b) gain insight into the impact of MHFA on COs attitudes and behaviors, a phenomenological approach was chosen to frame the analysis of the qualitative data. This approach was chosen as it provides the best methods to highlight COs' experience with mental health in the correctional setting. As part of this process, bracketing was used to set aside the facilitators own assumptions about the MHFA training (Hsieh & Shannon, 2005; Krippendorff, 2004). Furthermore, brackets indicate facilitators biases and beliefs toward training COs in MHFA. Significant statements that explained the phenomenon were identified and reviewed for reoccurring themes. Making meaning was derived from these common themes and was used to describe the phenomenon.

A phenomenological content analysis was used to develop the codebook and derive meaning across study codes and subgroups to identify themes (Hsieh & Shannon, 2005; Krippendorff, 2004). Two researchers who were trained in qualitative methods developed the initial codes for the codebook. Examples of coding categories are Burnout, Emotional Vulnerability, Mental Health, Behavioral Health, Selfcare, and Referral Process (see Supplemental Material).

Memos recorded throughout the interview meeting were analyzed for recurring themes. The qualitative data were managed using Nvivo, a qualitative data analysis software program (Lumivero, 2023).

Interrater reliability was determined by the coders independently coding the first 10 pages of the transcript. Using the coding comparison query in Nvivo, coding by the two coders were compared to determine interrater reliability. All codes had above 90% agreement between the two coders, and there were no discrepancies between the two coders that required further deliberation. To control for confirmation bias, a researcher trained in qualitative analysis and unfamiliar with the project was invited to code the transcript (Brinberg & McGrath, 1985; Miles & Huberman, 1984).

The coded data were organized into categories and examined for relevance, coherence, and consistency. The data were then checked against the original qualitative data set to ensure accuracy. A thematic map was generated to explore the relationship between the categories, codes, and themes. Themes were refined and solidified throughout the analytic process.

Results

Table 1 reports differences between pre- and postintervention results on MHFA knowledge questions. There were no significant differences between the pre- and postintervention results for the five MHFA knowledge items.

Table 2 includes the Wilcoxon signed-ranks test results to analyze the differences between the pre- and postintervention results for the mental health referrals proxy items. A Wilcoxon signed-ranks test indicated that for the first referral item, "Currently, I believe that for me referring someone showing signs and symptoms of a mental health or substance use challenge(s) to practical resources (e.g., self-help information, crisis hotline number) is" was not statistically significant between the pre- and postintervention. Last, for the referral item, "Currently, I believe that for me referring someone experiencing a mental health or substance use challenge(s) to a health professional is," the median postintervention ranks, $Mdn = 3.0$ (a response of "3" = neither difficult nor easy) were statistically significantly higher than the median pre-intervention ranks, $Mdn = 2.0$, $Z = -2.087$, $p = .037$.

Table 1

Paired t Test Comparing Pre- and Posttest Results on MHFA Knowledge (N = 27)

MHFA knowledge item	Pretest		Posttest				
	M	*SD*	*M*	*SD*	*t*	*p*	Effect size
MHFA knowledge (overall)	93.08	11.23	95.38	8.59	−0.90	.38	−0.18
True statement about the Assess, Listen, Give, Encourage, and Encourage action plan	16.92	7.36	17.69	6.52	−0.44	.66	−0.09
Early indicator that an individual is experiencing a mental health or substance use challenge	19.23	3.92	19.23	3.92	0.00	1.00	0.00
NOT a key factor of recovery	18.46	5.43	19.23	3.92	−0.57	.57	−0.11
Actions within the scope of a first aider	19.23	3.92	19.23	3.92	0.00	1.00	0.00
Ways a first aider cope with feelings of discomfort or frustration associated with providing MHFA	19.23	3.92	20.00	0.00	−1.00	.33	−0.20

Note. $p < .05$. MHFA total possible score = 100 points; maximum possible score for each item = 20 points. MHFA = mental health first aid.

Table 2
Mental Health Referral Results Comparing Pre- and Posttest Results (N = 27)

MHFA referral item	Pretest median	Posttest median	Test statistic[a]	*p*
"Currently, I believe that for me referring someone showing signs and symptoms of a mental health or substance use challenge(s) to practical resources (e.g., self-help information, crisis hotline number) is"	2.00	2.00	−1.79[b]	.074
"Currently, I believe that for me referring someone experiencing a mental health or substance use challenge(s) to a health professional is"	3.00	2.00	−2.087[b]	.037*

Note. Response options: "1 = extremely easy," "2 = fairly easy," "3 = neither difficult nor easy," "4 = fairly difficult," and "5 = extremely difficult." MHFA = mental health first aid.
[a] Wilcoxon signed-ranks test. [b] Based on positive ranks.
* $p < .05$.

Following MHFA training, on average, COs self-reported referring 2.6 (*SD*: 4.30, range 1–20) people who are incarcerated for behavioral mental health services. The reasons for referral included: "suicidal thoughts," "experiencing anxiety over being incarcerated during COVID," and "considering self-harm." Pretest referral numbers and reasons were not collected, and therefore, there are no comparisons for pretest and posttest.

Qualitative Findings

Nine CO participants who completed one of the three MHFA training participated in the focus group meeting. The mean age of the study participants was 37 years old, five were COs, two lieutenants, one sergeant, and one captain. On average, CO participants had 10.8 years (with a range from 4 to 22 years) of service in corrections.

Three themes were identified through the phenomenological analysis of focus group data. These themes were: (a) COs experience with MHFA training was viewed positively (facilitators); (b) there is a need to improve mental wellness in correctional settings (barriers); (c) mental health referral process for incarcerated individuals needs enhancement when implementing MHFA (barriers).

Theme One: COs Experience With MHFA Training Was Viewed Positively

COs positively reviewed their experience with MHFA training. Reflecting on the training experience one CO noted,

> We should be having a lot more mental health training, if this is going to be the narrative … That is what we need to be having, because we're not having these classes … I think everybody should be able to get this class … It allowed me to open up, learn myself, learn what I have been ignoring, and what I need to deal with. I think more training on how to talk to an inmate would be good. [male, CO, with 22 years of service]

Most of the other COs expressed their agreement with this statement through affirmations and nods. COs discussed how much they learned about themselves and the importance of learning how to communicate with people who are incarcerated. Regarding the tailored scenario cards developed by the National Council, the facilitators reported that the CO participants "truly felt that the depression/suicide character was representative of the experiences they had in corrections." This statement from CO participants demonstrates that they had a positive experience with the virtual MHFA for adults training. After being exposed to MHFA, CO participants were interested in future sessions related to mental health.

Theme Two: There Is a Need to Improve Mental Wellness in Correctional Settings

Mental wellness was an important topic of discussion with the COs. Given their military background, concerns about posttraumatic stress and the day-to-day workload in working in prison settings emerged. For instance, one CO with prison service and veteran status described how mental health issues are handled, noting that:

> We never talked about this stuff like what y'all have in here … This was never something that was talked about among COs unless you were cool with certain ones … this is why a lot of our habits went untamed, they went uncorrected, you know, as far as the machoism or, or the lack of a knowing that you're having mental health issues and stuff like that, or just blowing it off. [male, CO, with 22 years of service]

In this prison facility, effort has been made to address inmates' mental health. A lieutenant with 17 years of prison service indicated, "this department's intentions of dealing and treating mental health are good, I think, they got a long way to go." However, several COs shared that the changing institutional culture around mental wellness to support COs has been limited:

> That's the part we try to grasp now. You know what I mean, whether its guys been [working in the institution for] six years, or guys with 23 years, we're just trying to grasp that whole understanding of — is it okay, it's okay to you know, have a breakdown — it's okay. [male, CO, with 22 years of service]

In summary, COs described that more attention was being given to support the mental wellness of people who are incarcerated, but addressing mental wellness for COs still has a long way to go and should be prioritized. MHFA Instructors suggesting improving future remote MHFA trainings by *allowing the trainees to guide discussion, making space for COs to share their lived experience with mental health, and highlighting the ways that training can benefit their personal life*. The additional emphasis being placed on addressing mental well-being in incarcerated people adds further responsibilities among COs who are already responsible for addressing the basic needs and supervision of most people who are incarcerated.

Theme Three: Mental Health Referral Process for Incarcerated Individuals Needs Enhancement When Implementing MHFA

COs stated that there was a need to improve the process by which inmates demonstrating signs of mental illness were referred to the

appropriate prison mental health staff. As mentioned previously, COs are responsible for monitoring and supervising incarcerated people 24 hr daily. COs described their basic duties as being "mommy, daddy, and everything in between." This includes identifying inmates with mental disorders and connecting them with the appropriate care. COs shared that it was difficult to differentiate between inmates manipulating COs for attention, those exhibiting behavioral issues, and inmates displaying signs of mental illness. One CO said,

> We are so used to these guys manipulating us every single day, that's what we're dealing with. So, we look at mental health and we're like: "Oh, this guys just playing", until we find one that's not. So, it's kind of hard to differentiate this. [male, CO, with 6 years of service]

Another reiterated this point when they said, "I think one of the big things for incarcerated individuals is distinguishing between somebody who has mental health issues and somebody who's purely behavioral and seeking attention" [lieutenant, female, with 6–10 years of service]. COs framed this as an initial barrier to connecting inmates who display signs and symptoms of mental distress to mental health care staff. The COs agreed that this difficulty in identifying someone exhibiting symptoms of mental health crisis has led to "not being identified until it's too late."

Another critique of mental health treatment services in the prison facility that COs voiced was the siloed nature of communication between COs and prison mental health providers. COs expressed the lack of communication given from the prison mental health providers. For instance, COs are not informed when an inmate's medication has been changed. Prison mental health providers are unaware of contextual factors specific to the prison setting, particularly when inmates need help on the weekends and during evening shifts. When asked about the on-call staff who were available for the night shift and during the weekend, one CO responded by saying,

> It's random. It might not even be a person who is really affiliated with an institution specifically. And you can see, on the weekends—when an on-call psychiatrist is called, and a man is threatening suicide—they don't understand. Our typical psychiatrist will say suicide smock only because of the risk. This on-call psychiatrist will say, "Oh, let them have all his clothes. Give them all his linens." So yeah, you see what we're dealing with? So now, this is happening on the weekend, when all you have are officers here being like, "Okay, well, the psychiatrist ordered this for him. But, my common sense is saying this guy just tried to hang up, why am I going to give him a sheet and blanket and clothes that he can complete the task with?" … We're giving all these tools to complete what he wanted to do earlier. But the professional said that he gets them. [male, CO, with 10 years of service]

While there are institutional efforts to provide prison-based mental health care services for people who are incarcerated, additional protocols are needed to ensure that COs are provided information about when an incarcerated person's medication and/or treatment is changed.

Discussion

This remote MHFA intervention pilot study produced numerous critical findings for future implementation MHFA trials with COs. The mixed methods study found a positive association between MHFA training and an increase in COs attitudes regarding referring people who are incarcerated to mental health professionals. These findings are further supported in the qualitative data specifically, themes two (increasing importance of mental wellness within correctional spaces), and three (inmate mental health referral process), which indicate that COs are placing greater importance on mental well-being of people who are incarcerated. However, COs report that the systems currently in place to connect people struggling with mental illness must be revamped. Specifically, COs stressed three specific needs.

First, COs expressed concern that mental health staff who were contract prison employees did not understand the correctional context and that full-time mental health staff are needed for overnight and on weekend shifts. Second, communication between mental health staff and COs about changes in incarcerated person's medication and or treatment is currently not in place. Last, COs wanted regular basic mental health training to be added to their training schedule.

In addition, the MHFA training significantly increased participants' attitudes regarding referring people to mental health services. In the 12 weeks following the intervention, MHFA trainees referred, on average, 2.6 persons who were incarcerated to mental health services because they were experiencing signs of mental distress. The reasons for referring included: "suicidal thoughts," "experiencing anxiety over being incarcerated during COVID," and "considering self-harm." Tailored MHFA training is needed to equip COs with the skills to connect individuals experiencing signs and symptoms of mental illness with the appropriate services.

Previous research on the efficacy of MHFA training has presented conflicting findings regarding the impact of MHFA on participant helping behaviors and the mental health of aid recipients (Banh et al., 2019; Forthal et al., 2022; Morgan et al., 2018, 2019). In a systematic review and meta-analysis of MHFA training research, Morgan et al. (2018) reported small-to-moderate posttraining effects on participant MHFA knowledge, identification of mental illness, stigma, and intention to help (Morgan et al., 2018). However, Forthal et al., 2022 reported mixed effects from MHFA training and no relationship on the MHFA recipients.

Our findings warrant additional research into optimizing MHFA training within a prison setting. Specifically, additional studies should explore the inconsistencies between the qualitative and qualitative findings. This divergence may be due to how the survey questions were phrased compared to the focus group meeting, where questions can be asked in multiple ways.

Strengths and Limitations

This study has several strengths, which include using a mixed methods design to explore MHFA training with COs. Tailoring scenarios to address the needs of COs is an additional strength. To our knowledge, we are unaware of any studies regarding implementing MHFA training with COs. The majority of intervention studies focusing on MHFA are with firefighters, the military, law enforcement, and the general community (Booth et al., 2017). Last, participants reviewed their experience as overwhelmingly positive, suggesting the MHFA may be feasible to implement with COs.

One of the limitations of this study was the small sample size, which reduced the generalizability of the findings. However, these findings provide an opportunity to consider the critical need for correctional officers to be trained in MHFA so that they are prepared

to handle issues related to mental illness in correctional settings. Correctional officers play a unique role in the health and well-being of incarcerated people. With appropriate mental health training, correctional officers are better equipped to observe when inmates become distressed or need professional help. Collaboration between correctional officers and the prison health care staff is urgently necessary to manage inmates who have mental health challenges.

Second, the team did not collect the number of mental health referrals from each officer before the intervention because they could not recall the number of mental health referrals made prior to MHFA training. As such, the team could not analyze differences between pre- and postintervention of the number of mental health referrals in the prison facility. To better assess the effectiveness of MHFA in correctional officers, future studies should develop a mechanism to collect mental health referral data both pre- and postintervention. Third, selection bias from the correctional facility might have been introduced, as study participants were not randomly chosen for either MHFA training or the focus group meeting. Participants were not randomly selected due to the intense work schedule of COs, their supervisor selected participants based on availability. Future studies should include random sampling approaches to increase the effectiveness of MHFA in correctional setting. Another limitation of this study was that there was no control group. To better determine MHFA effectiveness, future studies could incorporate a quasi-experimental design by collecting data from a control group to increase the validity of results.

Implications

Existing collaboration between correctional facilities and academic correctional health researchers is a prerequisite to implementing MHFA in state prisons. Correctional facilities, however, are not often asked to continuously provide mental health training to correctional officers. Academic correctional researchers can provide technical assistance to correctional officers to help them increase their mental health awareness and reduce perceived beliefs and assumptions surrounding mental health. Maintaining trust and community partnerships is difficult for correctional facility leadership and COs. For example, some COs did not have access to email or the internet to complete questionnaires, MHFA knowledge checks or pre- and postassessments. Another challenge was how difficult it was for COs to participate in the training because of their work schedules. However, the correctional facility leadership invested time and commitment to allow correctional officers the opportunity to be trained in MHFA. The academic correctional researchers had established a strong partnership that helped increase familiarity with MHFA training.

Conclusions

MHFA training can be helpful for correctional officers to equip them with appropriate skills to identify mental health challenges and substance use in correctional settings.

References

Banh, M. K., Chaikind, J., Robertson, H. A., Troxel, M., Achille, J., Egan, C., & Anthony, B. J. (2019). Evaluation of mental health first aid USA using the Mental Health Beliefs and Literacy Scale. *American Journal of Health Promotion*, *33*(2), 237–247. https://doi.org/10.1177/0890117118784234

Barnert, E., Ahalt, C., & Williams, B. (2020). Prisons: Amplifiers of the COVID-19 pandemic hiding in plain sight. *American Journal of Public Health*, *110*(7), 964–966. https://doi.org/10.2105/AJPH.2020.305713

Bond, K. S., Jorm, A. F., Kitchener, B. A., & Reavley, N. J. (2015). Mental health first aid training for Australian medical and nursing students: An evaluation study. *BMC Psychology*, *3*(1), Article 11. https://doi.org/10.1186/s40359-015-0069-0

Booth, A., Scantlebury, A., Hughes-Morley, A., Mitchell, N., Wright, K., Scott, W., & McDaid, C. (2017). Mental health training programmes for non-mental health trained professionals coming into contact with people with mental ill health: A systematic review of effectiveness. *BMC Psychiatry*, *17*(1), Article 196. https://doi.org/10.1186/s12888-017-1356-5

Brinberg, D., & McGrath, J. E. (1985). *Validity and the research process*. Sage Publications.

Brinkley-Rubinstein, L., Sivaraman, J., Rosen, D. L., Cloud, D. H., Junker, G., Proescholdbell, S., Shanahan, M. E., & Ranapurwala, S. I. (2019). Association of restrictive housing during incarceration with mortality after release. *JAMA Network Open*, *2*(10), Article e1912516. https://doi.org/10.1001/jamanetworkopen.2019.12516

Brown, E. (2020). A systematic review of the effects of prison segregation. *Aggression and Violent Behavior*, *52*, Article 101389. https://doi.org/10.1016/j.avb.2020.101389

Canada, K. E., Angell, B., & Watson, A. C. (2012). Intervening at the entry point: Differences in how CIT trained and non-CIT trained officers describe responding to mental health-related calls. *Community Mental Health Journal*, *48*(6), 746–755. https://doi.org/10.1007/s10597-011-9430-9

Dvoskin, J. A., & Spiers, E. M. (2004). On the role of correctional officers in prison mental health. *Psychiatric Quarterly*, *75*(1), 41–59. https://doi.org/10.1023/B:PSAQ.0000007560.09475.a0

Evans, J., Romaniuk, M., & Theal, R. (2021). Evaluation of mental health first aid training for family members of military veterans with a mental health condition. *BMC Psychiatry*, *21*(1), Article 128. https://doi.org/10.1186/s12888-021-03139-9

Favril, L. (2021). Epidemiology, risk factors, and prevention of suicidal thoughts and behaviour in prisons: A literature review. *Psychologica Belgica*, *61*(1), 341–355. https://doi.org/10.5334/pb.1072

Fazel, S., Hayes, A. J., Bartellas, K., Clerici, M., & Trestman, R. (2016). Mental health of prisoners: Prevalence, adverse outcomes, and interventions. *The Lancet Psychiatry*, *3*(9), 871–881. https://doi.org/10.1016/S2215-0366(16)30142-0

Ford, E. (2017). *Why we shouldn't stigmatize mentally ill prisoners*. Time. https://time.com/4782404/prison-mental-health-stigma-suicide/

Forthal, S., Sadowska, K., Pike, K. M., Balachander, M., Jacobsson, K., & Hermosilla, S. (2022). Mental health first aid: A systematic review of trainee behavior and recipient mental health outcomes. *Psychiatric Services*, *73*(4), 439–446. https://doi.org/10.1176/appi.ps.202100027

Galanek, J. D. (2015). Correctional officers and the incarcerated mentally ill: Responses to psychiatric illness in prison. *Medical Anthropology Quarterly*, *29*(1), 116–136. https://doi.org/10.1111/maq.12137

Gétaz, L., Wolff, H., Golay, D., Heller, P., & Baggio, S. (2021). Suicide attempts and COVID-19 in prison: Empirical findings from 2016 to 2020 in a Swiss prison. *Psychiatry Research*, *303*, Article 114107. https://doi.org/10.1016/j.psychres.2021.114107

Greenberg, N., & Tracy, D. (2020). What healthcare leaders need to do to protect the psychological well-being of frontline staff in the COVID-19 pandemic. *BMJ Leader*, *4*(3), 101–102. https://doi.org/10.1136/leader-2020-000273

Haigh, C. B., Kringen, A. L., & Kringen, J. A. (2020). Mental illness stigma: Limitations of crisis intervention team training. *Criminal Justice Policy Review*, *31*(1), 42–57. https://doi.org/10.1177/0887403418804871

Haney, C. (2018). Restricting the use of solitary confinement. *Annual Review of Criminology*, *1*(1), 285–310. https://doi.org/10.1146/annurev-criminol-032317-092326

Hawks, L., Woolhandler, S., & McCormick, D. (2020). COVID-19 in prisons and jails in the United States. *JAMA Internal Medicine*, *180*(8), 1041–1042. https://doi.org/10.1001/jamainternmed.2020.1856

Hewson, T., Shepherd, A., Hard, J., & Shaw, J. (2020). Effects of the COVID-19 pandemic on the mental health of prisoners. *The Lancet Psychiatry*, *7*(7), 568–570. https://doi.org/10.1016/S2215-0366(20)30241-8

Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Johnson, L., Gutridge, K., Parkes, J., Roy, A., & Plugge, E. (2021). Scoping review of mental health in prisons through the COVID-19 pandemic. *BMJ Open*, *11*(5), Article e046547. https://doi.org/10.1136/bmjopen-2020-046547

Kessler, R. C., Demler, O., Frank, R. G., Olfson, M., Pincus, H. A., Walters, E. E., Wang, P., Wells, K. B., & Zaslavsky, A. M. (2005). Prevalence and treatment of mental disorders, 1990 to 2003. *The New England Journal of Medicine*, *352*(24), 2515–2523. https://doi.org/10.1056/NEJMsa043266

Kitchener, B. A., & Jorm, A. F. (2002). Mental health first aid training for the public: Evaluation of effects on knowledge, attitudes and helping behavior. *BMC Psychiatry*, *2*(1), Article 10. https://doi.org/10.1186/1471-244X-2-10

Krippendorff, K. (2004). Reliability in content analysis: Some common misconceptions and recommendations. *Human Communication Research*, *30*(3), 411–433. https://doi.org/10.1111/j.1468-2958.2004.tb00738.x

Lamb, H. R., & Weinberger, L. E. (2005). The shift of psychiatric inpatient care from hospitals to jails and prisons. *Journal of the American Academy of Psychiatry and the Law*, *33*(4), 529–534.

Lumivero. (2023). *NVivo*. https://www.lumivero.com

McNeeley, S., & Donley, C. (2021). Crisis intervention team training in a correctional setting: Examining compliance, mental health referrals, and use of force. *Criminal Justice and Behavior*, *48*(2), 195–214. https://doi.org/10.1177/0093854820959394

Mental Health First Aid Australia. (2022). *Mental health first aid*. Retrieved April 20, 2022, from https://mhfa.com.au/

Mental Health First Aid USA. (n.d.). *Mental health first aid for adults*. https://www.mentalhealthfirstaid.org/population-focused-modules/adults/

Meyer, V. (2018). *Mental health first aid has changed the way we do our job*. Mental Health First Aid News and Updates. https://www.mentalhealthfirstaid.org/external/2018/02/mental-health-first-aid-has-changed-the-way-we-do-our-job/

Miles, M. B., & Huberman, A. M. (1984). Drawing valid meaning from qualitative data: Toward a shared craft. *Educational Researcher*, *13*(5), 20–30. https://www.jstor.org/stable/1174243

Morawska, A., Fletcher, R., Pope, S., Heathwood, E., Anderson, E., & McAuliffe, C. (2013). Evaluation of mental health first aid training in a diverse community setting. *International Journal of Mental Health Nursing*, *22*(1), 85–92. https://doi.org/10.1111/j.1447-0349.2012.00844.x

Morgan, A. J., Fischer, J.-A. A., Hart, L. M., Kelly, C. M., Kitchener, B. A., Reavley, N. J., Yap, M. B. H., Cvetkovski, S., & Jorm, A. F. (2019). Does mental health first aid training improve the mental health of aid recipients? The training for parents of teenagers randomised controlled trial. *BMC Psychiatry*, *19*(1), Article 99. https://doi.org/10.1186/s12888-019-2085-8

Morgan, A. J., Ross, A., & Reavley, N. J. (2018). Systematic review and meta-analysis of mental health first aid training: Effects on knowledge, stigma, and helping behaviour. *PLOS ONE*, *13*(5), Article e0197102. https://doi.org/10.1371/journal.pone.0197102

National Council for Mental Wellbeing. (2022). *Mental health first aid USA*. Mental Health First Aid. https://www.mentalhealthfirstaid.org/

National Institute of Corrections. (2010). *Crisis intervention teams: A frontline response to mental illness in corrections [lesson plans and participant's manual]*. https://nicic.gov/crisis-intervention-teams-frontline-response-mental-illness-corrections-lesson-plans-and

Plugge, E. (2021). Mental health among people in prison at the time of COVID-19: All bad news? *European Journal of Public Health*, *31*(Supplement_3), Article ckab164.519. https://doi.org/10.1093/eurpub/ckab164.519

Reavley, N. J., Morgan, A. J., Fischer, J.-A., Kitchener, B., Bovopoulos, N., & Jorm, A. F. (2018). Effectiveness of eLearning and blended modes of delivery of mental health first aid training in the workplace: Randomised controlled trial. *BMC Psychiatry*, *18*(1), Article 312. https://doi.org/10.1186/s12888-018-1888-3

Robinson, L. K., Heyman-Kantor, R., & Angelotta, C. (2020). Strategies mitigating the impact of the COVID-19 pandemic on incarcerated populations. *American Journal of Public Health*, *110*(8), 1135–1136. https://doi.org/10.2105/AJPH.2020.305754

Sawyer, W., & Wagner, P. (2022). *Mass incarceration: The whole pie 2022*. Prison Policy. https://www.prisonpolicy.org/reports/pie2022.html

Scarr, E. (2015). *Changing attitudes to mental illness in the Australian defence force: A long way to go … .* Department of Parliamentary Services: Australian Parliamentary Library. https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/APF/monographs/changing_attitudes

Thomas, S., & Watson, A. (2017). A focus for mental health training for police. *Journal of Criminological Research, Policy & Practice*, *3*(2), 93–104. https://doi.org/10.1108/JCRPP-01-2017-0005

Received August 29, 2022
Revision received January 11, 2024
Accepted February 5, 2024 ■