Original Research

Pharmacy professionals' preparedness to use Mental Health First Aid (MHFA) behaviors

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Abstract

Background: There is a need to train healthcare professionals to provide first aid to people experiencing a mental health crisis. Research testing the association between Mental Health First Aid (MHFA) training and the use of MHFA behaviors could provide evidence of program effectiveness in the pharmacy setting.

Objectives: The objectives of this study were to measure the preparedness of pharmacy professionals to function in a MHFA role, and compare preparedness and the use of MHFA behaviors based on demographic characteristics.

Methods: Pharmacists and student pharmacists attended MHFA training under a multi-state pharmacy initiative in 2018. An anonymous electronic survey was administered to 227 participants using 4 contacts in May to June, 2019. The survey evaluated if participants had recommended MHFA to others, their preparedness to engage in MHFA behaviors (13 items), and their frequency of performing a set of MHFA behaviors (7 items). Descriptive statistics, bivariate analysis, and ANOVA were used to describe the sample and compare these variables across groups.

Results: The analysis was based on 96 responses (42.3%). Almost all respondents (96%) had recommended MHFA training to others. Respondents reported that the training program prepared them to provide a range of MHFA behaviors for multiple mental health conditions, particularly for depression and anxiety. Participants most often reported asking about a distressed mood and listening non-judgmentally. Almost half of participants had asked someone if they were considering suicide and a similar percent had referred someone considering suicide to resources. Those reporting the highest levels of preparedness engaged in significantly more MHFA behaviors than those with lower levels of preparedness (p=0.017). Preparedness and use of MHFA behaviors were not significantly associated with respondent demographic characteristics.

Conclusion: These data suggest that pharmacy professionals who had MHFA training felt prepared to engage in MHFA and many used behaviors like asking about suicide and making referrals since being trained in MHFA. Research is warranted to better understand what makes someone feel maximally prepared to use MHFA behaviors compared to lower feelings of preparedness.

Keywords

Pharmacists; Mental Health; Suicide; Emotions; Depression; Anxiety; First Aid; Pharmaceutical Services; Surveys and Questionnaires; United States

INTRODUCTION

An estimated one billion people worldwide were impacted by a mental or addictive disorders in 2016, approximately 8.5 million US adults aged 18 or older had any mental illness and a substance use disorder in 2017, and in the same year another 10.6 million US adults aged 18 or older had serious thoughts about taking their own lives.[1,2] Undiagnosed and untreated or unattended mental illness has profound economic, emotional and social cost implications for affected individuals, families and communities.[3-5] People at risk of experiencing a mental health crisis such as suicidal ideation may not explicitly disclose their thoughts and feelings or their intent to harm themselves.[6,7] They may, however, communicate more subtle warning signs which people in the community can be trained to recognize.[7,8]

There is the need to train a range of health care professionals and other community members in mental health crisis intervention, such as Mental Health First Aid

(MHFA), so they can identify and provide initial help to people experiencing a mental health crisis until the affected person can access more specialized resources.[8,9] Pharmacists are well-positioned for this new role as they are seen as a trustworthy and easily accessible professional, and are increasingly recognized as contributors to mental health care.[10-18] Studies show pharmacists often encounter persons at risk of experiencing a mental health crisis but may not be confident in how they should intervene due to a lack of training.[19,20]

The U.S. version of the MHFA uses an 8-hour training program delivered as a single session, or divided into 2 sessions and is designed to develop mental health literacy and teach a 5-step action plan for assessing at-risk individuals and how to refer persons experiencing mental health crises or conditions to professional help.[21] The design of the MHFA course is consistent with Social Cognitive Theory which posits that individuals acquire and maintain behaviors through observation.[22,23] Specifically, MHFA training includes observing video examples and engaging role play practice of the MHFA behaviors.

While studies have shown that MHFA training contributes to being able to recognize mental disorders, removes the reluctance to intervene, increases confidence, knowledge and self-efficacy to perform MHFA, and decreases stigma among participants, less work involving pharmacists has

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examined the use of mental health crisis intervention behaviors like asking about suicide and referring people to services following mental health crisis intervention training, and the link between attitudes and behaviors.[24-30] This study assesses attitudes of preparedness and corresponding use of MHFA behaviors by a sample of pharmacy professionals following MHFA training.

The objectives of this study were to 1) measure the perceived preparedness of pharmacy professionals to function in a MHFA role and 2) compare preparedness and the use of MHFA behaviors based on demographic characteristics.

METHODS

Between 2017 and 2018, a group of U.S. pharmacy organizations launched a MHFA initiative to train pharmacists to be MHFA trainers. During 2018, over 200 pharmacy professionals attended these trainings. Trainings took an in-class seminar format and were held in 5 states in the U.S. (Iowa, California, Florida, Indiana, and Oklahoma).

This evaluation study was approved by the institutional review board of the University of Iowa on May 8, 2019, IRB #201905722. The research team surveyed the MHFA participants, diverse in their pharmacy role, who had previously attended one of the pharmacist-led MHFA training programs. This group included practicing community and hospital pharmacists, pharmacy school faculty, pharmacy technicians, and student pharmacists. Data were collected via an anonymous electronic survey administered through Qualtrics (Provo, UT) using a four-contact sequence of a pre-notification email, initial email, and two reminder emails. The initial introductory email was sent in May, 2019 by the respective trainer. The next three emails with the survey link were in May and June, 2019 sent 6-8 days apart by the researchers using the survey software. Participants varied in the time since they were trained and when the survey was administered, which

ranged from approximately 5 to 17 months. The survey instrument was reviewed by experts in evaluation studies and mental health and suicidology. Most survey items were designed to not be specific to a certain setting so people could respond regardless of their work setting or personal circumstances.

Data collected with the survey included demographics (age, self-identified gender, and professional role), and when they participated in their training. Participants were also asked in the survey whether they would recommend MHFA training to their colleagues, friends, or family and if they have made such a recommendation. Thirteen questions on a 5-point Likert scale (strongly disagree to strongly agree) were used to assess respondent preparedness to perform a set of MHFA skills based on the U.S. MHFA training handbook and the 5 mental health conditions included in the U.S. MHFA training manual (depression, anxiety, psychosis, substance use disorder, and eating disorder).[21] Seven scaled items were used to assess participant use of MHFA behaviors post-training. These behaviors ranged from "asked someone about their distressed mood" and "asked someone if they are considering suicide" to "referred someone to appropriate resources because you were concerned they were considering suicide." Participants reported their best estimate of the number of times they have used each of the behaviors as 0, 1, 2, 3 or 4+ times (treated numerically as 4) since being trained.[21]

Preparedness was chosen as the stem for the prompts based on the conceptualization by Wyman *et al.* (2008), which describes preparedness as the provider's perceived knowledge and attitudes about mental health problems, their appraisals of their preparation and self-efficacy to engage in mental health crisis intervention, and their awareness and access to relevant helping services and resources for effective referral of persons with mental health challenges, for evaluating similar gatekeeper training.[31] For the present study, MHFA preparedness implies the "knowledge and beliefs about mental health disorders that either hinder or aid in their recognition,

Table 1. Participant demographic data for study sample (N= 96)			
Characteristic	**N (%)**	**Preparedness Items Mean (SD)**	**Total MHFA Behaviors Mean (SD)**
Age			
<25	9 (0.09%)	4.51(0.45)	9.78(4.76)
25-34	31 (32.3%)	4.59(0.41)	8.90(6.02)
35-44	18 (18.5%)	4.37(0.44)	11.83(6.38)
45-55	8 (8.3%)	4.59(0.35)	11.63(9.72)
>= 55	16 (16.7%)	4.45(0.59)	9.31(6.89)
NR	14 (14.6%)		
Gender			
Woman	59 (61.5%)	4.49(0.48)	10.14(6.70)
Man	22 (22.9%)	4.54(0.41)	9.45(6.33)
NR	15 (15.6%)		
Quarter Trained			
January-March 2018	16 (16.7%)	4.44(0.51)	8.25(6.88)
April-June 2018	32 (33.3%)	4.32(0.74)	8.28(7.23)
July-September 2018	27 (28.1%)	4.48(0.42)	9.48(7.00)
October-December 2018	20 (20.8%)	4.72(0.38)	7.90(7.24)
NR	1 (1.0%)		
Professional Role			
Practicing pharmacist	45 (46.9%)	4.49(0.47)	10.02(6.99)
Student pharmacist	23 (23.9%)	4.59(0.43)	9.08(4.77)
Others	14 (14.6%)	4.41(0.49)	10.79(7.75)
NR	14 (14.6%)		
MHFA=Mental Health First Aid, NR=Not reported, Others=pharmacy faculty and pharmacists practicing in non-patient care roles			

Table 2. Preparedness to perform MHFA skills (n=96)								
The training prepared me to…	**1**	**2**	**3**	**4**	**5**	**NR**	**Median**	**IQR**
Identify persons showing warning signs of mental health crisis.	1	0	2	24	66	3	5	1
Identify persons showing warning signs of suicide.	1	0	2	35	54	4	5	1
Appropriately respond when someone expresses suicidal thoughts.	0	2	1	33	56	4	5	1
Listen non-judgmentally to someone experiencing a mental health crisis.	1	0	1	12	79	3	5	0
Offer appropriate information to someone experiencing a mental health crisis.	1	0	2	32	58	3	5	1
Offer reassurance to someone experiencing a mental health crisis.	1	0	2	24	66	3	5	1
Make appropriate referrals to community resources for someone experiencing a mental health crisis.	1	0	6	35	51	3	5	1
Encourage self-help strategies for someone experiencing a mental health crisis.	1	0	8	29	55	3	5	1
Provide mental health first aid to someone experiencing severe depression.	2	0	5	33	52	4	5	1
Provide mental health first aid to someone experiencing severe anxiety.	2	0	3	33	54	4	5	1
Provide mental health first aid to someone experiencing psychosis.	1	4	10	42	35	4	4	1
Provide mental health first aid to someone struggling with a substance use disorder.	2	2	6	40	41	5	4	1
Provide mental health first aid to someone struggling with an eating disorder.	3	6	11	37	34	5	4	1
IQR=interquartile range								

management or prevention".[24]

Mean responses for the preparedness items and for the total number of MHFA behaviors reported were calculated for each participant. These values were used for bivariate analyses (Wilcoxon rank-sum test) and Kruskal Wallis one-way analysis of variance (ANOVA) across categories of demographic variables. Because of an apparent ceiling effect for the preparedness responses, median preparedness for each participant also was calculated, and participants were grouped into those with median preparedness less than 5 and those with median preparedness equal to 5. The average use of MHFA behaviors by these two groups was compared. Descriptive statistics were used to describe the study sample. Analyses were performed in R v.4.0.0. at an *a priori* level of significance of $p < 0.05$.

RESULTS

Surveys were emailed to 227 MHFA trainees and 98 completed surveys. Two responses by pharmacy technicians were excluded from this analysis due to low representativeness, to give n=96, and a valid response rate of 42.3%. As shown on Table 1 for those reporting a gender, 61.5% were women. The professional role that contributed the most to the pool of participants was practicing pharmacists (46.9%), and student pharmacists (23.9%) most of whom were in their third or fourth year of pharmacy school when they took the MHFA training.

Mean preparedness and use of MHFA behaviors for participants based on their age group, gender, training period, and professional role are reported on Table 1. There was no statistically significant difference in preparedness and average use of MHFA behaviors across age groups, gender, training period, and pharmacist roles (p>0.05). After the training, the average use of MHFA behaviors (mean=6.5, SD=5.5) by participants with median preparedness less than 5 was significantly different from the average use of MHFA behaviors (mean=10.2, SD=7.4) by participants with median preparedness equal 5 (p=0.016).

As seen on Table 2, the data show that overall, most participants agree that the training prepared them to perform MHFA behaviors. When asked to rate how well-prepared they feel about providing MHFA for patients experiencing specific conditions, participants reported greater preparedness to provide MHFA to patients experiencing severe depression and severe anxiety (median=5; IQR=1) than for patients with psychosis, substance abuse and eating disorder (median=4, IQR=1). When asked whether they would recommend MHFA training to their colleagues, friends, or family, 96% of study participants stated that they would.

Table 3 displays participant responses to the extent to which they engaged in specific MHFA behaviors after the training. The most commonly reported behaviors engaged in were asking someone about their distressed mood (median=3 times, IQR=1), and listening non-judgmentally to someone experiencing a mental health crisis (median=3 times, IQR=1), while the least common behavior was to

Table 3. Report of Mental Health First Aid behaviors since being trained (N=96)			
Behavior	**% reporting behavior**	**Median**	**IQR**
Asked someone about their distressed mood	81.3	3	2.00
Asked someone if they are considering suicide	46.9	1	2.00
Listened non-judgmentally to someone experiencing a mental health crisis	81.3	3	2.50
Referred someone to appropriate resources because you were concerned they might be experiencing a mental health crisis	62.5	1	3.00
Referred someone to appropriate resources because you were concerned they were considering suicide	48.9	1	1.00
Engaged with a mental health crisis resource on behalf of someone	35.4	0	1.00
Engaged with emergency medical or police services because of someone experiencing a mental health crisis	23.9	0	0.00
IQR=interquartile range. Behavior reporting based on frequency options of 0, 1, 2, 3, or 4+ times (treated as 4).			

engage with emergency medical or police services because of someone experiencing a mental health crisis. Overall, the mean sum of the 7 MHFA behaviors performed by respondents was 8.54 (SD=6.9).

DISCUSSION

This study demonstrates that participating in MHFA training prepared pharmacy professionals to identify signs of mental health challenges, provide mental health first aid, and equipped them with information on available helping resources and referral pathways. Although, overall, a high level of preparedness was reported by pharmacy professionals, there may be variation based on the specific condition with a higher preparedness to perform MHFA for people experiencing severe depression and anxiety and a lower preparedness to engage with those experiencing psychosis, substance use disorders, and eating disorders. This could be due to pharmacy professionals having less personal or work experience with individuals experiencing substance use disorders.[32] Research also suggests greater stigma towards individuals with eating disorders than towards depression, and lack of training for these complex conditions.[28,33-36]

The study data did not provide evidence that, on average, participant preparedness and their use of MHFA behaviors varied based on the demographic characteristics of gender, age-group, or training period. In terms of training period, this finding is somewhat counterintuitive as it is expected that persons with more time since training would have more opportunities to use the behaviors. It may have been that survey-takers had a recall bias where they only remembered instances from the last few months. Also, the effects of behaviorally focused training, such as MHFA, may decrease over time. Booster trainings to reinforce behaviors are likely needed to sustain the new behaviors.[30,37-39]

Although participants reported high levels of preparedness, on average, people reporting less strong feelings of preparedness reported engaging in fewer MHFA behaviors. These respondents may have faced more barriers to engaging in MHFA behaviors. Studies suggest barriers include a lack of time and difficulty in balancing business pressures with patient care, especially for pharmacy professionals who work in settings where professional roles and business roles overlap.[40,41] Also, some pharmacy professionals may be hesitant to perform MHFA due to conflicting feelings of fear of causing harm with their intervention.[24] It is likely that a mix of more conducive work environments and more experience will be needed to bolster the contribution of pharmacy to metal health crisis intervention.[17]

After completing the training, most participants reported recommending the training to their colleagues, friends, and family. Although pharmacists tend to differ in their views about providing public health services like MHFA, with some considering public health roles to be secondary to the traditional medication-related and dispensing roles.[42] These data suggest that participation in MHFA training not only increases preparedness, but may also drive recruitment of others, thereby lending credence to the pharmacists role in mental health crisis intervention which is still in the early stages of adoption.[8]

Regarding future research, study designs that use a control or comparison group are needed to test the independent impact of the MHFA training on intervention behaviors. Further, since the present study was based on volunteers who may have been uniquely motivated, studies are needed that test the impact of mental health crisis intervention training as a requirement to inform how these trainings should be scaled. Also, observational studies are needed to test the validity of self-reported mental health crisis intervention behaviors and investigate the nuances of pharmacist-patient dialogue related to mental health. For example, a study by El-den et al. using simulated patients suggests student pharmacists trained in MHFA still struggled with instrumental behaviors like asking directly about suicide.[43]

Limitations

This study was cross-sectional, and we were not able to conduct a pre-survey prior to the MHFA training, it also had no comparison group. This study also is subject to selection bias given the voluntary nature of MHFA course enrollment. Non-responders also may have had different experiences using the behaviors and lower levels of preparedness. Participants varied in the time since they were trained and when the survey was administered. The overall sample size and some of the group sizes were small which limited the use of multivariate analyses. There is the possibility that other factors external to the study like public service campaigns or other trainings, policy changes, or personal experiences with at-risk individuals could also have influenced preparedness and use of MHFA behaviors. Also, the survey did not specify that the MHFA behaviors had to happen in a work capacity or in a personal context. Participants may have interpreted the behavior counting differently, for example, by omitting instances where they used MHFA in their personal life. It may be useful for future work to specify that MHFA behaviors should be reported for both their personal and work lives, with separate counts for each.

CONCLUSIONS

Pharmacy professionals reported high preparedness to perform MHFA behaviors and most participants had engaged in using multiple MHFA behaviors following their training. Participants reporting the highest levels of preparedness reported using significantly more MHFA behaviors. Participants also were enthusiastic about MHFA training with most reporting they had recommended the training to others. More work appears needed to prepare pharmacists to engage with patients experiencing the wide range of mental health conditions.

CONFLICT OF INTEREST

The authors declare no relevant conflicts of interest or financial relationships. AP was one of the pharmacist MHFA trainers.

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