Background

The Substance Abuse and Mental Health Services Administration (SAMHSA) reported that while 18.9% of American adults suffered from a mental illness in 2017, only 42.6% of those with an identified mental illness received treatment.[1] Additionally, an estimated 17.3 million American adults (7.1% of the adult population) experienced a major depressive episode in 2017 with only 66.8% of those individuals receiving mental health services. The prevalence of untreated mental illness stems from various barriers preventing patients from receiving diagnosis and treatment. According to the World Health Organization (WHO), some barriers include lack of access to mental healthcare providers, prohibitive healthcare costs, and negative social stigmas towards mental illness.[3]

The National Council for Behavioral Health seeks to address barriers to mental illness diagnosis and treatment through Mental Health First Aid (MHFA). Developed in 2001, MHFA trains individuals how to respond during a mental health crisis and, like cardiopulmonary resuscitation, has been identified as an essential skill for emergency preparedness.[2,4] MHFA has spread worldwide with trainees in over 25 countries; more than one million people in the United States have completed the eight-hour training.[4] The training is designed for all levels of health literacy and provides education about various mental illnesses. The program also trains participants how to adapt a core action plan to address each individual's needs.[2]

A database search conducted in 2009 by Chowdhary and colleagues using "mental health first aid" as a Medical Subject Heading term resulted in 181 articles.[5] The vast majority of articles (>90%) reported on the beneficial impact of MHFA on trainees rather than patient outcomes after an encounter with a MHFA provider.[5] The authors recommended future researchers assess patient willingness to engage with community pharmacists offering themselves as MHFA-trained professionals. Among 173 community pharmacists surveyed in North Carolina, 87% of respondents indicated willingness to complete MHFA training.[6] As the most accessible member of the healthcare team,[7] pharmacists utilizing MHFA could play an important role in expanding access to mental healthcare.

While patients may be comfortable discussing well-understood diseases such as diabetes with a pharmacist, negative stigma may dissuade some patients from discussing a mental illness with a pharmacist. A previous study surveying patients about their perception of pharmacists' roles in diabetes care showed most respondents were comfortable discussing diabetes with their pharmacist.[8] To the author's knowledge, no one has examined patient willingness to discuss mental illness with community pharmacists trained in MHFA. This study sought to identify the need for mental health services in a sample of patients utilizing community pharmacies as well as identify rates of public awareness of MHFA and perception of community pharmacists providing this service.

The objectives of this study were to: (1) identify the number of participants screening positive for major depressive disorder (MDD); (2) assess the number of participants who have discussed or would like to discuss mental illness with a trained professional; (3) determine public awareness about MHFA; and (4) determine public perception regarding community pharmacists trained in MHFA.

Methods

A cross-sectional, 18-question survey was administered at four community pharmacies operated by Balls Food Stores (BFS), a grocery store chain in the Kansas City metropolitan area. The survey included single-response, multiple-response, and open response questions. The Patient Health Questionnaire-2 (PHQ-2), a validated tool, was included to identify the number of participants screening positive for MDD.[9] Participants were surveyed regarding a history of wanting to talk to someone as well as speaking to someone about a mental illness. If applicable, the survey asked participants to identify who they spoke to about mental illness. Participants were asked if they had a previous diagnosis, were currently receiving treatment, and/or believed they were currently suffering from any of six listed

mental illnesses including depression, anxiety, post-traumatic stress disorder (PTSD), schizophrenia, bipolar disorder, and alcohol or substance use disorder. Awareness of MHFA and/or knowledge of receiving MHFA, and perception of community pharmacists trained in MHFA was also assessed. Participants were asked to identify their level of comfort discussing mental illness with a MHFA-trained pharmacist compared to a pharmacist without MHFA training. The survey was piloted among a group of 12 volunteers to assess clarity and feasibility.

Eligible participants were 18 years of age or older and able to speak and read in English. The survey was administered from September 2018 to January 2019. When eligible participants presented to a participating pharmacy for an influenza vaccine, they were given a vaccine consent form with the MHFA survey attached. Pharmacy staff explained the optional and anonymous nature of the MHFA survey. While waiting for pharmacy staff to prepare the influenza vaccine, participants were instructed to complete the MHFA survey. The method of attaching the MHFA survey to the influenza vaccine consent form was implemented to prevent double-surveying among participants. Participants were incentivized to complete the survey with points added to a grocery store rewards club account. Completed surveys were placed in a tamper-resistant collection box at point-of-sale when purchasing the influenza vaccine. The study coordinator periodically collected completed surveys. The study was granted exemption from the University of Kansas Medical Center Human Research Protection Program.

Statistical analyses were performed using SPSS version 25 (IBM, Armonk, NY) with an a-priori alpha value of 0.05. Descriptive statistics were used to assess the following: (1) demographics, (2) questions from the PHQ-2 Questionnaire, (3) three multiple response questions assessing mental illness diagnoses, undiagnosed mental illness, and current treatment, (4) and multiple-response questions assessing participants' desire to talk to someone about mental illness and history of talking to someone about mental illness. Participants who screened positive for MDD (PHQ-2 score of at least 3 out of 6 points possible) were compared to those who did not screen positive regarding previous use of mental health services and MHFA. Additionally, participants who reported a diagnosis of mental illness and those who believe they currently suffer from a mental illness but lack a formal diagnosis were compared using Chi-square. Perceptions of pharmacists as MHFA providers between those who have sought help for mental illnesses and those who have not received help were compared using Wilcoxon signed-rank test. Qualitative responses to the open-ended question were assessed for emerging themes.

Results and Discussion

A total of 358 surveys were collected. The median age of survey participants was 63 years; most were white (94%, n=296) and female [62%, n=222, (Table 1)]. Seven participants (2%) scored positive for MDD on the PHQ-2, of which two (28.6%) indicated they were not receiving treatment for any mental illness at the time of their surveyed response. One hundred and eight participants (30.2%) indicated a history of wanting to speak to someone about a mental illness. Participants were then able to select one or multiple answers indicating who they previously spoke to about mental illness. Forty-one participants (38.7%) reported speaking to a physician and 63 participants (59.4%) reported speaking to a counselor or therapist. Fifty-three participants (50.5%) reported speaking to a family member or friend and seven (6.6%) reported speaking to a religious figure about a mental health need. A majority of participants (n=286, 84.6%) reported unawareness of MHFA.

Regarding four of six mental illnesses surveyed, more participants believed they currently suffer from mental illness than those who indicated they are currently receiving treatment. Sixty-six of 321 participants (20.6%) reported a previous diagnosis of depression, 53 of 313 participants (16.9%) responded they believe they currently suffer from depression, and 48 of 305 participants (15.7%) reported currently receiving treatment for depression. Similar results were found for anxiety [62/320 participants (19.4%) reported a previous diagnosis, 61/313 (19.5%) believed they currently suffered from anxiety, 46/304 (15.1%) reported current treatment], PTSD [11/320 participants (3.4%) reported a

previous diagnosis, 10/313 (3.2%) believed they currently suffered from PTSD, 4/304 (1.3%) reported current treatment], and alcohol or substance abuse disorder [4/320 (1.3%) reported a previous diagnosis, 1/313 (0.3%) believed they currently suffered from alcohol or substance abuse disorder, 0 reported current treatment]. No participants reported a previous diagnosis, current suffering, or current treatment for schizophrenia. More participants [3/304 (1%)] reported current treatment for bipolar disorder than reported belief of currently suffering from bipolar disorder [2/313 (0.6%)]. Participants could provide responses to one or multiple surveyed mental illnesses.

Participants' reported comfortability discussing mental illness with a MHFA-trained pharmacist compared to an untrained pharmacist and beliefs about pharmacists' qualifications to discuss mental illness are presented in Figure 1.

The results of the current study indicate many opportunities for community pharmacists to expand MHFA services. To the authors' knowledge, no previous study has examined patient comfortability discussing mental illness with a MHFA-trained pharmacist. A high proportion of participants (n=164, 49.1%) were unsure if pharmacists without MHFA training have the skills necessary to talk to a patient about mental illness. This demonstrates a lack of awareness among the public about the extensive training pharmacists receive regarding mental illnesses, patient communication techniques, and pharmacology of available treatments. Survey participants were more comfortable discussing mental illness and had stronger belief in pharmacists' qualifications to do so if the pharmacist had additional credentials of MHFA training. However, while over 90% of respondents in a previous study reported they were comfortable talking to their pharmacist about diabetes, the current study found nearly two thirds (62.4%) of participants agreed or strongly agreed they were comfortable discussing a mental health need with a MHFA-trained pharmacist.[8] One way to increase patient comfortability discussing mental illness is for MHFA-trained pharmacists to begin conversations with patients about the training. The highly accessible nature of community pharmacists places them in a key position to be front-line agents helping patients gain access to mental healthcare by initiating conversations about mental health and referring individuals to an appropriate provider if needed.[7]

The low incidence of individuals reporting awareness of MHFA reveals an opportunity for community pharmacists to expand awareness of this resource. Participant beliefs that pharmacists should be trained in MHFA adds justification for inclusion of MHFA training in didactic pharmacy coursework and pharmacist continuing education programs. Mospan et al surveyed community pharmacists in North Carolina and found a majority (77%) were unaware of MHFA but most (87%) were willing to undergo the training if pharmacy continuing education credit was available.[6]

The current study identified a potential need for expanded mental health services for individuals utilizing community pharmacies in the Kansas City metropolitan area. Two of seven participants (28.6%) who screened positive for MDD indicated they were not receiving treatment for any mental illness at the time they were surveyed. This rate of under-treated participants living with MDD was similar to findings from a 2017 national survey reporting 33.2% of American adults suffering a major depressive episode did not receive mental health services.[1] Notably, only two percent of survey respondents in this study screened positive for MDD compared to 7.1% of adults reporting a major depressive episode in 2017.[1] One reason for a lower rate of MDD among participants in this study may be due to healthy respondent bias from surveying individuals presenting at a community pharmacy for an influenza vaccine. Additionally, the 2017 national survey utilized a secure electronic reporting system which may have allowed participants to feel more comfortable answering questions about mental health in contrast to paper surveys used by this study. The study authors sought to minimize this bias by informing participants of the anonymous nature of the survey and secure survey storage.

There were limitations to this study. First, 108 surveys (30.2%) contained at least one unanswered question but all 358 surveys were included in data analysis. Additionally, participant responses may have been impacted by response bias due to negative stigma associated with survey

subject matter and recall bias if patients misremembered previous mental health diagnoses or current treatments. The self-reported nature of the study may limit the validity of results as participant responses could not be validated with their primary care provider or health insurance claims data. Lastly, the lack of awareness of MHFA reported by the majority of participants may have impacted responses to questions regarding MHFA. A survey cover letter was included with detailed information describing MHFA but not all patients may have reviewed this information thoroughly.

Additional research about pharmacist-administered MHFA is needed. For example, community pharmacist willingness to use MHFA training to engage patients in conversations about mental illness is unknown. More opportunities for pharmacists to become trained in MHFA may arise as the American Pharmacists Association and Walgreens Boots Alliance, Inc. announced an initiative in May 2019 to create a customized version of MHFA training for pharmacists.[10] If more employers engage in similar efforts as Walgreens Boot Alliance, Inc. to train employees, future studies could examine MHFA training impact on company culture regarding mental illness and expanded awareness of the training.

Conclusion

Two percent of individuals surveyed at community pharmacies scored positive for MDD; nearly a third of individuals scoring positive for MDD indicated they do not currently receive treatment for a mental illness. While 30.2% of participants reported a previous desire to speak to someone about a mental illness, less than half reported speaking to a physician and nearly 60% reported speaking to a counselor or therapist. A majority of participants reported unawareness of MHFA. Survey participants were more likely to report comfortability discussing mental illness and were more likely to agree a pharmacist had the skills necessary to speak to a patient about mental illness if a pharmacist were trained in MHFA. MHFA-trained community pharmacists can play a role in expanding awareness of MHFA and counseling patients about mental illness. Future studies are needed to track patients after an MHFA intervention to determine if the service led to positive patient outcomes such as establishing care with a mental healthcare provider, diagnosis of previously unknown mental health conditions, or suicide prevention.

References

1. Substance Abuse and Mental Health Services Administration. (2018). *Key substance use and mental health indicators in the United States: Results from the 2017 National Survey on Drug Use and Health* (HHS Publication No. SMA 18-5068, NSDUH Series H-53). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/. Accessed May 17, 2019.
2. Kitchener BA, Jorm AF. (2006). Mental health first aid training: review of evaluation studies. *Aust N Z JPsychiatry*. 40: 6-8.
3. World Health Organization. (22 Mar. 2018). *Depression*. Online. Available at: http://www.who.int/news-room/fact-sheets/detail/depression. Accessed February 19, 2019.
4. National Council for Behavioral Health. About Mental Health First Aid. https://www.mentalhealthfirstaid.org/about/. Accessed May 31, 2019.
5. Chowdhary A, Zlotnikova V, Lucas C and Lonie J. (Jan. 2019). How do mental health first aid™ interventions influence patient help-seeking behaviors? A dilemma for pharmacist mental health first aid responders. *Res Social Admin Pharm.* 15:1; 106-108.
6. Mospan CM, Benfield M, Gillette C. (2019). A call for community pharmacists to complete mental health first aid training. *J Am Pharm Assoc.* https://doi.org/10.1016/j.japh.2018.10.013
7. Manolakis PG, Skelton JB. (2010). Pharmacists' contributions to primary care in the United States collaborating to address unmet patient care needs: the emerging role for pharmacists to address the shortage of primary care providers. *Am J Pharm Ed.* 74(10), p.S7.

8. Weitzman A, McDowell K, Elswick B, Blommel M. (2009). Patient perceptions of pharmacists' role in diabetes: results of an Operation Diabetes initiative. *J Am Pharm Assoc.* https://doi.org/10.1331/JAPhA.2009.09130
9. Kroenke K, Spitzer RL, Williams JB. (2003). The Patient Health Questionnaire-2: validity of a two-item depression screener. *Med Care*. 41; 1284-1294.
10. National Council for Behavioral Health. Walgreens Forms Unique Collaboration with the National Council for Behavioral Health and American Pharmacists Association to Offer Mental Health First Aid Training for Pharmacists and Team Members. https://www.mentalhealthfirstaid.org/2019/05/walgreens-forms-unique-collaboration-with-the-national-council-for-behavioral-health-and-american-pharmacists-association-to-offer-mental-health-first-aid-training-for-pharmacists-and-team-members/. Accessed May 25, 2019.