

# The impact of early direct-contact experiences on reducing mental health stigma among student pharmacists: A pilot study

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## Abstract

**Introduction:** Mental health-related stigma is a barrier to treatment and recovery for serious mental illnesses (SMIs). Educational training programs demonstrate positive changes in health professional students' attitudes and stigma toward SMI; however, student pharmacists have minimal opportunity to directly engage with the SMI population. This study aims to assess and compare student pharmacists' stigma related to SMI before and after participating in a pilot series of direct-contact workshop experiences.

**Methods:** The 15-item Opening Minds Scale for Healthcare Providers survey was administered to student pharmacists before and after the workshop experiences to measure stigma toward SMI. Five 2-hour workshops were provided to members of a local nonprofit organization serving people with SMI by student pharmacist volunteers detailing a health and wellness topic. The postworkshop survey included free text responses to obtain student feedback.

**Results:** Twenty-four complete preworkshop surveys were obtained, and most of them had positive attitudes and beliefs at baseline. Thirteen postworkshop surveys were obtained from student pharmacists who participated in a workshop event, and 9 were completed by student pharmacists who did not participate in a workshop event, which were used as a comparator group. Stigma decreased after participating in a workshop event, and those who participated demonstrated a lower degree of stigma versus the comparator group.

**Discussion:** Direct-contact experiences allow student pharmacists to interact with people with SMI earlier in their training and help reduce stigma toward those with psychiatric disorders. Future research is needed to identify large-scale changes in pharmacy student stigma.

**Keywords:** serious mental illness, stigma, experiential education, pharmacy student, psychiatry, mental health

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## Background

Stigma among health professionals is a barrier to treatment access and recovery for people with serious mental illness (SMI). Stigma can lead to lower provision of care, and inadequate provider training can create feelings of avoidance, and social distancing from this population.<sup>1-3</sup> Pharmacists positively



**TABLE 1: Characteristics of direct-contact immersive wellness workshop experiences**

Workshop Topic	Clubhouse Members, n	Student Pharmacists, n	Preceptor(s), n	Items Distributed
Medication Safety & Adherence	8	2	1	25 arthritis-friendly pillboxes
Healthy Outlets for Stress Relief	21	5	2	25 gratitude journals 24 bath salt packets
Heart Health	12	5	1	7 boxes of heart-healthy snacks 15 DASH diet cookbooks 48 MyPlates 100 MyPlate bookmarks
Sleep Hygiene and Social Connectedness	5	4	2	24 sleep eye masks 24 lavender sleep sprays 20 puzzle books 1 painting activity set 1 cookie baking set 3 cookbooks 3 board games 3 gardening supply sets
Operation Naloxone	5	4	2	3 boxes of naloxone nasal spray

DASH = dietary approaches to stop hypertension.

affect health outcomes and report a willingness to serve patients with psychiatric disorders; however, they report lower comfort and confidence levels.<sup>4-7</sup> Pharmacists with psychiatric patient care experiences have more positive scores in service provision, stigma, confidence, and attitudes, suggesting personal connection may reduce avoidance and stigma.<sup>6,7</sup>

Required psychiatric pharmacy school curricula is largely limited to didactic lectures.<sup>8</sup> Although elective psychiatric advanced pharmacy practice experiences (APPEs) are offered, only 37.3% of institutions offer psychiatric introductory pharmacy practice experiences.<sup>8,9</sup> Furthermore, the Accreditation Council for Pharmacy Education does not require student pharmacist participation in psychiatric patient care activities.<sup>10</sup> As such, students have minimal structured interaction with the SMI population. Contact-based learning during psychiatric and addiction medicine APPEs reduces stigma and increases knowledge and confidence; however, these experiences are limited to the final year in student pharmacist training.<sup>11,12</sup> Providing similar opportunities earlier in student pharmacist training may be beneficial.

The Clubhouse Model of Psychosocial Rehabilitation is an international, evidence-based program designed to help people with SMI through community membership.<sup>13</sup> Clubhouse membership is available to people who are 18 years or older, have a mental health diagnosis, and are actively following a treatment plan. In addition to full-time program staff, members volunteer their time to carry out daily work of the Clubhouse with a focus on recognizing and using the talents and abilities of its members. Daily programming, including in-person activities and virtual meetings, is provided and varies for each Clubhouse. The Clubhouse offers social connectedness, health promotion

activities, assistance with community-based housing, and employment programs, and reduces hospitalizations, while also improving overall quality of life.<sup>13,14</sup> This innovative practice describes a new collaboration between a local Clubhouse chapter and a collegiate chapter of the American Association of Psychiatric Pharmacists (AAPP) to provide direct-contact workshop experiences.

## Objectives

The objective of this study is to assess student pharmacists' stigma related to SMI before and after participating in direct contact experiences.

## Methods

The Clubhouse "Health & Wellness Program" focuses on 4 areas: nutrition, addiction, physical fitness, and integration with community health resources. This guided the development of 5 workshop topics: (1) medication safety and adherence, (2) mindfulness and stress reduction, (3) heart health, (4) sleep hygiene and social connectedness, and (5) opioid overdose and naloxone training (Table 1). The student organization president and vice president were responsible for developing presentation content and identifying needed resources. The 2 student organization advisors and college of pharmacy faculty reviewed presentation materials prior to the workshop event. Workshops were advertised to Clubhouse members through email by a Clubhouse program coordinator.

A total of 26 current and prospective student pharmacists in the collegiate AAPP chapter received weekly communication via an electronic newsletter and email along with an

invitation to volunteer at a workshop. Workshops occurred during usual business hours on a weekday and were precepted by an affiliated college of pharmacy preceptor. The date and time of each workshop were agreed upon by student leaders and Clubhouse program coordinators. A total of 2 to 5 student pharmacist volunteers were recruited for each workshop. The first hour of the workshop allowed students to engage with Clubhouse members in their day-to-day activities, such as meal preparation and team planning sessions. The second hour consisted of an educational presentation to Clubhouse members on the workshop topic. The presentation was provided by 1 or 2 students, whereas the remaining student volunteers assisted with answering member questions and contributing to small group discussions. To help Clubhouse members incorporate information learned in the workshops, community enrichment activities (eg, puzzle books, board games) and a variety of health and wellness items were purchased through grant funding and distributed to members at each workshop and Clubhouse leadership (Table 1).

An anonymous preworkshop and postworkshop survey was developed by the college of pharmacy faculty advisors using the Opening Minds Scale for Healthcare Providers (OMS-HC-15). The OMS-HC-15 is a 15-item scale to measure health care provider stigma related to mental illness.<sup>15,16</sup> Three subscale scores can be calculated from the OMS-HC-15 for Attitude, Disclosure and Help-seeking, and Social Distance. The survey was administered using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). All student pharmacist members of the collegiate AAPP chapter were asked to complete the survey prior to the start of the workshops to establish baseline student pharmacist stigma. After the final workshop, all student pharmacist members were asked to complete the same survey again, regardless of participation in a workshop. Those who attended a workshop provided qualitative feedback on their most enjoyable aspect and any key takeaways. Students who did not participate in a workshop and completed a postworkshop survey were used as a comparator group. Survey responses were not paired to ensure anonymity. Statistical analyses were conducted in STATA 18 using the Mann-Whitney *U* test to compare postworkshop survey responses of the 2 groups. Descriptive statistics were used to compare preworkshop and postworkshop survey response trends. This study was determined exempt by the Institutional Review Board.

## Results

Twenty-four complete preworkshop survey responses were obtained prior to the workshop series (24 of 26; response rate = 92.3%). At baseline, all students strongly disagreed or disagreed with the statement that health care providers do not need to advocate for people with mental illness

(OMS-HC-13; 24 of 24; 100.0%; Table 2). A proportion (7 of 24; 29.2%) strongly agreed or agreed they felt more comfortable helping a person with a physical illness versus a mental illness (OMS-HC-1). Additionally, 9 (37.5%) strongly agreed or agreed they would be reluctant to seek help if they had a mental illness (OMS-HC-5), and 5 (20.8%) strongly agreed or agreed they would see themselves as weak if they had a mental illness and could not fix it (OMS-HC-4).

The president and vice president of the collegiate AAPP chapter alternated attendance at each workshop to lead student volunteers. Across the 5 workshops, 16 unique student pharmacists volunteered, 51 Clubhouse members attended, and an assortment of 326 wellness items were provided to the Clubhouse (Table 1). A total of 13 of the 16 workshop volunteers completed a postworkshop survey (response rate = 81.3%), and 9 surveys were completed by students who did not participate in a workshop (9 of 10; response rate = 90.0%). Workshop participants had reduced stigma towards mental illness versus the comparator group; however, both these results and comparison of the 3 subscale scores were not statistically significant ( $P > .05$ ).

Only students who participated in a workshop strongly disagreed or disagreed they would be more comfortable helping a person with a physical illness versus a mental illness (OMS-HC-1; 3 of 13; 23.1% versus 0 of 9; 0%;  $P = .31$ ). Additionally, workshop participants had a greater proportion of those who strongly disagreed or disagreed there is little they can do to help those with mental illness (OMS-HC-10; 13 of 13; 100% versus 8 of 9; 88.9%;  $P = .67$ ), and both of these values increased from baseline (21 of 24; 87.5%). When presented the statement, "I struggle to feel compassion for a person with mental illness," workshop participants had a greater proportion of those who strongly disagreed or disagreed (OMS-HC-15; 13 of 13; 100% versus 8 of 9; 88.9%,  $P = .31$ ; Table 2).

In addition to reduced stigma, student pharmacists reported positive takeaways:

I found the whole experience very insightful . . . We talk about "meeting people where they are at" and its positive effects on patient engagement. . . I felt like this series really encompassed those values, while also expanding on opportunities for community engagement for pharmacy students.

Since most of us had no prior exposure to this patient population before these workshops, getting to interact with the members in such a friendly and informal setting was a great learning (and social) experience.

. . . providing this type of education in the context of a Clubhouse setting makes education both easily accessible, but also provided in a safe environment for those who experience stigma.

**TABLE 2: Comparison of Opening Minds Scale for Healthcare Providers (OMS-HC) statement responses among student pharmacists**

Likert Scale Rating	Preworkshop Baseline, % n = 24	Postworkshop Volunteer, % n = 13	Postworkshop Comparator, % n = 9
<b>OMS-HC-1: I am more comfortable helping a person who has a physical illness than I am helping a person who has a mental illness.</b>			
SA or A	29.2	46.2	66.7
Neither A nor D	41.7	30.8	33.3
SD or D	29.2	23.1	0.0
<b>OMS-HC-2: If a colleague with whom I work told me they had a mental illness, I would be just as willing to work with him/her.</b>			
SA or A	95.8	100.0	100.0
Neither A nor D	0.0	0.0	0.0
SD or D	4.2	0.0	0.0
<b>OMS-HC-3: If I were under treatment for a mental illness I would not disclose this to any of my colleagues.</b>			
SA or A	29.2	23.1	33.3
Neither A nor D	37.5	46.2	33.3
SD or D	33.3	30.8	33.3
<b>OMS-HC-4: I would see myself as weak if I had a mental illness and could not fix it myself.</b>			
SA or A	20.8	23.1	0.0
Neither A nor D	16.7	7.7	33.3
SD or D	62.5	69.2	66.7
<b>OMS-HC-5: I would be reluctant to seek help if I had a mental illness.</b>			
SA or A	37.5	15.4	22.2
Neither A nor D	16.7	7.7	0.0
SD or D	45.8	76.9	77.8
<b>OMS-HC-6: Employers should hire a person with a managed mental illness if he/she is the best person for the job.</b>			
SA or A	95.8	92.3	88.9
Neither A nor D	4.2	7.7	0.0
SD or D	0.0	0.0	11.1
<b>OMS-HC-7: I would still go to a physician if I knew that the physician had been treated for a mental illness.</b>			
SA or A	91.7	92.3	88.9
Neither A nor D	8.3	7.7	11.1
SD or D	0.0	0.0	0.0
<b>OMS-HC-8: If I had a mental illness, I would tell my friends.</b>			
SA or A	83.3	76.9	88.9
Neither A nor D	16.7	15.4	0.0
SD or D	0.0	7.7	11.1
<b>OMS-HC-9: Despite my professional beliefs, I have negative reactions towards people who have mental illness.</b>			
SA or A	4.2	0.0	0.0
Neither A nor D	4.2	7.7	11.1
SD or D	91.7	92.3	88.9
<b>OMS-HC-10: There is little I can do to help people with mental illness.</b>			
SA or A	4.2	0.0	11.1
Neither A nor D	8.3	0.0	0.0
SD or D	87.5	100.0	88.9
<b>OMS-HC-11: More than half of people with mental illness don't try hard enough to get better.</b>			
SA or A	4.2	0.0	0.0
Neither A nor D	4.2	15.4	11.1
SD or D	91.7	84.6	88.9
<b>OMS-HC-12: I would not want a person with a mental illness, even if it were appropriately managed, to work with children.</b>			
SA or A	4.2	0.0	11.1
Neither A nor D	8.3	0.0	0.0
SD or D	87.5	100.0	88.9

**TABLE 2: Comparison of Opening Minds Scale for Healthcare Providers (OMS-HC) statement responses among student pharmacists (continued)**

Likert Scale Rating	Preworkshop Baseline, % n = 24	Postworkshop Volunteer, % n = 13	Postworkshop Comparator, % n = 9
<b>OMS-HC-13: Healthcare providers do not need to be advocates for people with mental illness.</b>			
SA or A	0.0	0.0	0.0
Neither A nor D	0.0	0.0	0.0
SD or D	100.0	100.0	100.0
<b>OMS-HC-14: I would not mind if a person with a mental illness lived next door to me.</b>			
SA or A	91.7	92.3	66.7
Neither A nor D	8.3	0.0	22.2
SD or D	0.0	7.7	11.1
<b>OMS-HC-15: I struggle to feel compassion for a person with mental illness.</b>			
SA or A	0.0	0.0	11.1
Neither A nor D	8.3	0.0	0.0
SD or D	91.7	100.0	88.9

A = agree; D = disagree; SA = strongly agree; SD = strongly disagree.

Even from my one visit at the Clubhouse, I have learned the importance of having a social support system that is there to provide resources and guidance for individuals living with mental illnesses.

All the counseling skills we learn [in pharmacy practice lab] can be effectively translated over to people living with SMIs. From our interactions, we can gather that people living with SMIs rarely require any special considerations or a higher level of carefulness/caution during interactions.

## Discussion

This is the first description, to our knowledge, detailing experiential opportunities for student pharmacists to engage with SMI prior to fourth-year APPEs. Psychiatric therapeutics coursework is integrated in the doctor of pharmacy curriculum; however, available experiential opportunities are underdeveloped.<sup>8</sup> These workshop experiences enabled interaction with the SMI population at an earlier time point in training, with a goal of strengthening health provider training and mitigating feelings of avoidance from this population.<sup>17</sup> Direct interaction has been shown to reduce mental health stigma, and face-to-face approaches have greater effects on challenging stigma versus didactic education.<sup>8,18</sup>

Survey results from this pilot project suggest that the implementation of educational workshops provided by pharmacy students and presented to those with an SMI reduced stigma toward patients with mental health conditions. Our model suggests favorable benefit in implementing pharmacy student-led workshops in an SMI population prior to completing APPE clinical rotations. Direct-contact workshop experiences should include service-learning teaching methodologies to

allow students to foster community partnerships while applying didactic knowledge to real-world situations.<sup>19,20</sup> It was important to ensure student pharmacists worked alongside Clubhouse members on various day-to-day tasks. This approach was intentional because immersive participation can increase confidence and enhance trainees' skills in patient care.<sup>21</sup> Pharmacy student organizations should be encouraged to research and consider implementing similar programs at their respective schools of pharmacy.

This pilot project has several limitations. Because of the anonymity of the preworkshop and postworkshop survey, survey responses were unable to be matched. Three of the workshop attendees did not complete a postworkshop survey, and 5 students who completed a postworkshop survey indicated they did not complete a preworkshop survey, both of which could potentially skew results. Additionally, the amount of time spent in direct engagement with Clubhouse members varied each workshop depending on Clubhouse programming that specific day. Further, participation was limited to members of the collegiate AAPP chapter. This group may have had more positive perceptions of SMI at baseline, thus the impact of such workshops in those without a prior interest in psychiatric pharmacy is unknown. These students may also have higher motivation for participating in voluntary activities given a preliminary interest in psychiatry, and it is unclear how stigma may be affected in a different student population required to complete a similar learning experience. However, qualitative student feedback indicated these experiences had a profound effect despite favorable opinions at baseline. Although the Clubhouse model seeks to serve those with SMI, there are no diagnosis restrictions for memberships. Thus, it is possible that exposure to SMI was not consistent across workshop events. Therefore, exposure to a spectrum of mental illness symptom

severity may variably affect student stigma. Lastly, this was a single institution and lack of statistical significance may be attributed to the small sample size. Broader application of direct-contact workshop experiences and longer exposure periods are needed to determine if large-scale differences are seen in student stigma. Future efforts are aimed at increasing workshops at the Clubhouse and expanding to include a non-psychiatry-focused student population.

## Conclusion

A pilot series of direct-contact workshop experiences in partnership with a local Clubhouse successfully created meaningful learning opportunities for students and promoted the health and well-being of people with SMI. Despite relatively low levels of stigma at baseline among this group of students, participation in a workshop event produced a greater reduction in stigma compared with the comparator group. Other colleges of pharmacy should consider using motivated student organizations to partner with local organizations to increase student exposure to SMI.

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