INNOVATION AND IMPROVEMENT

Internal Medicine Resident Perceptions of Patients with Substance Use Disorder After Attending a Mutual Support Group Meeting

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BACKGROUND: Mutual support groups (MSGs) are support systems for patients with substance use disorders (SUDs), yet medical residents lack awareness in the role MSGs play in addiction treatment.

AIM: We developed an educational intervention to expose residents to MSGs and improve attitudes toward patients with SUD.

SETTING: The study took place from October 2017 to March 2018 within a large academic medical center.

PARTICIPANTS: First- to third-year internal medicine residents participated.

PROGRAM DESCRIPTION: Residents attended a MSG meeting. They completed surveys pre- and post-meeting and attended a focus group debrief session. Focus group transcripts were coded and thematically analyzed.

PROGRAM EVALUATION: Sixty-eight residents participated in the curriculum, 54 attended the focus group and 47 completed the pre- and post-survey. Qualitative themes included (1) appreciation for the sense of community at meetings, (2) improved perspective taking of patients with SUDs, (3) concern regarding religion, and (4) improved confidence in MSG referrals. Post-intervention, residents had more positive attitudes toward patients with SUD ($p < 0.05$ for 9 of 14 questions) and toward MSGs ($p < 0.05$ for 2 of 4 questions).

DISCUSSION: Implementing an educational intervention on MSGs gives residents an experience that impacts attitudes toward patients with SUD and confidence with MSG referrals.

KEY WORDS: substance use disorder; Graduate Medical Education; mutual support groups; reflection.

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INTRODUCTION

Training physicians to effectively counsel and empathize with patients with substance use disorders (SUDs) is critical, now more than ever. Mutual support groups (MSGs) such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) are important support systems for patients with SUDs, though medical trainees lack awareness and training in the role MSGs play in treatment of SUDs.¹ In addition, trainees often report dissatisfaction in caring for patients with SUD.²

Prior qualitative research shows that attending and reflecting on MSG meetings improve medical student attitudes and empathy toward patients with SUD.^{1, 3} Research on medical residents though has focused primarily on knowledge and attitudes toward MSGs and similar qualitative assessments of resident attitudes toward patients with SUD is lacking.⁴

We designed and evaluated an educational intervention for internal medicine residents consisting of a brief didactic component and an experiential component where residents attended a MSG meeting and debrief session. We sought to (1) qualitatively explore resident experiences attending a MSG meeting and (2) quantitatively assess changes in resident attitudes toward patients with SUDs after attending a meeting.

SETTING AND PARTICIPANTS

We implemented and evaluated an educational intervention within an internal medicine residency program at an urban academic medical center. The study was deemed exempt by the University of Pittsburgh Institutional Review Board (PRO17080500).

Participants

All 68 categorical internal medicine residents scheduled for ambulatory rotation October 2017–March 2018 took part in this intervention. These residents represented all 3 years of training and were a convenience sample of the 156 categorical residents in the University of Pittsburgh Medical Center Internal Medicine Residency Program from 2017 to 2018 who have a median age of 30 years old and are 56% women. The majority of graduates pursue subspecialty fellowship.

PROGRAM DESCRIPTION

Educational Intervention

All categorical residents within our residency program complete a 4-week ambulatory rotation annually, during which they rotate in primary care clinics and participate in half-day sessions on communication and procedural skills. The only other addiction-related curriculum during ambulatory rotations is a didactic session on substance use screening and brief intervention for first-year residents.

On the first day of their ambulatory rotation, residents attended a 15-min orientation session and received a two-page handout on principles of MSGs, adapted from the Substance Abuse in Brief Fact Sheet on MSGs⁵ (Supplemental Appendix 1). Residents were assigned to attend an open speaker-type MSG meeting (AA or NA). Two to 4 residents were assigned to each meeting, which took place in local neighborhoods. The primary investigator (A.K.) chose meetings via online meeting locators, after confirming with local meeting administrators that residents would be welcomed. On the last day of the rotation, residents took part in a 1-hour focus group debrief session about their experiences at the meeting. At the session's conclusion, residents watched a video created by the investigators on how to discuss MSGs with patients. The video was created with local experts' input on best practices regarding MSG referrals (Supplemental Appendix 2).

Qualitative Assessment

We developed a semi-structured focus group guide to explore (1) resident attitudes toward patients with SUDs and (2) resident attitudes toward MSGs, after attending a MSG meeting (Supplemental Appendix 3). Each focus group session was approximately 60 min in length and was conducted by a trained moderator. Sessions were audio-recorded and transcribed verbatim, with identifying information redacted.

Pre-post Questionnaire

Participants completed pre- and post-questionnaires in person on paper prior to the didactic and debrief sessions. The questionnaire contained eighteen 7-point Likert scale questions that ranged from 1 = strongly disagree to 7 = strongly agree (Supplemental Appendix 4). We adapted our survey from the Short Alcohol and Alcohol Problems Perception Questionnaire (SAAPPQ), a validated survey developed to measure general practitioners' attitudes toward patients with alcohol use disorder.^{6, 7} Ten questions came directly from the SAAPPQ. We added 8 questions to assess attitudes toward patients with SUD and MSGs. Fourteen questions addressed attitudes toward patients with SUD across the following domains: motivation, work satisfaction, role adequacy, role legitimacy, and self-esteem. Four questions addressed attitudes toward MSGs. The final survey was reviewed for face and content validity by local experts in addiction and medical education, and was piloted with residents in September 2018.

Methods of Analysis

Qualitative Data Coding and Analysis. All residents who attended a focus group were included in the qualitative analysis. Data analysis was performed utilizing a thematic analysis approach.⁸ The primary investigator (A.K.) read all six focus group transcripts and met with co-investigators to develop a preliminary coding scheme and come to consensus on a final coding plan. Two coders (A.K., F.A.C.) coded all six focus groups independently using Atlas.ti version 8 software and met to compare their coding and resolve inconsistencies. Coding was reviewed by the primary investigator (A.K.) to produce a thematic analysis addressing resident attitudes toward and experiences with MSGs. Preliminary themes identified by A.K. were then shared with co-investigators (M.H. and F.A.C.) as a form of triangulation. Final themes were agreed upon and are reported below.

Pre-post Questionnaire. All residents who completed both the pre- and post-questionnaires were included in our analysis. Data were entered into an electronic REDCap database. Surveys with missing data were excluded. Individual responses to each question were compared pre- versus post-intervention using paired Student's *t* tests with 2-sided *p* value < 0.05 considered statistically significant. Analysis was performed using Stata SE version 15.

PROGRAM EVALUATION

Qualitative Results

Of the 68 residents who received the educational intervention, 54 (79%) participated in one of the six focus groups, from which we identified the following 4 themes:

Theme 1: Appreciation for the strong sense of community exhibited at MSG meetings.

Residents remarked that there was a strong sense of community and fellowship at the MSG meetings, which represented a meaningful support system for patients in recovery. Residents highlighted the non-judgmental attitude and sense of acceptance for all members of the group, which was refreshing and moving. One stated, "There was a clear sense of fellowship and camaraderie...it seems like this was a community where members looked out for each other."

Theme 2: Improved perspective-taking of patients with SUDs.

When asked about their experience at the MSG meeting, residents remarked that attending a meeting gave them a better or renewed understanding of patients' experience with SUD. Many residents noted their unconscious biases toward patients with SUD and that attending the meeting was a reminder that addiction was a disease and not a moral failing. One said, "By being able to put a face and an emotional person telling her

story...it really broke down a little bit of the stigma of people with substance use disorder...it makes it less of an abstract.”

Residents noted that it was nice to see patients with SUD in recovery for a long period of time. One explained, “Often times I feel like in clinic and in the hospital...we keep seeing (patients) over and over...we’re like, you really want to get better? Seeing people that have...gives you a little bit of hope.”

Theme 3: Concern regarding the religious nature of some meetings.

The religious nature surprised many residents, who were not expecting it and expressed that this would limit which patients they would refer to future MSGs. Many residents expressed personal discomfort in attending the meetings. One remarked, “God’s name was mentioned several times, and the Psalm was said...I’m Jewish...so it made me very uncomfortable.” Residents did note that the level of religious overtones varied by meeting, as one observed, “the predominant theme was community, acceptance...it wasn’t a religious one.”

Theme 4: Improved confidence in future MSG referrals as a result of attending a MSG meeting.

Attending a MSG meeting improved resident confidence in referring patients to future meetings. By directly observing the experience, residents felt more confident in their referrals and the accuracy of how and whom they would refer (i.e., they would not refer someone who was not religious). One stated, “I’ve definitely referred people before...but now...I can actually give a reasonable description, and that might help people who aren’t convinced.”

Survey Results

Forty-seven residents (69%) completed both the pre- and post-surveys. Of these, 20 were post-graduate year (PGY)1s (43%), 17 were PGY2s (36%), and 10 were PGY3s (21%). Residents had statistically significantly improved attitudes on 9 of the 14 individual questions toward patients with SUD and 2 of the 4 questions on attitudes toward MSGs (Table 1). Significant improvements were found within the domains of motivation, work satisfaction, role adequacy, and self-esteem. The domain of role legitimacy did not show a statistically significant difference post-curriculum.

DISCUSSION

Our study demonstrated that a brief educational intervention of attending and reflecting on a MSG meeting improved internal medicine resident attitudes toward patients with SUD and toward MSGs. Residents noted that the strong community ties of the meetings were most helpful, and were surprised by the religious nature of the meetings. Residents also expressed that participating in this intervention gave them more confidence in referring patients to MSGs. In our survey results, we noted

Table 1 Effect of Attending a MSG Meeting on Residents’ Attitudes Reported on a Pre- and Post-educational Questionnaire

	Pre ^a	Post ^a	<i>p</i> value ^b
Attitudes toward patients with SUD			
Motivation			
I want to work with patients with SUD	4.4	4.7	0.02
Optimism is the most realistic attitude to take toward persons with SUD	5.3	5.7	< 0.001
I prefer to see patients with SUD	4.7	4.9	0.08
I trust patients with SUD	5.0	5.1	0.25
Work satisfaction			
It is rewarding to work with patients with SUD	4.3	4.8	< 0.001
I like patients with SUD	4.3	4.6	0.01
I do not find treating patients with SUD frustrating	3.4	3.9	< 0.001
Role adequacy			
I know enough about SUD to carry out my role working with patients with SUD	4.5	5.1	< 0.001
I can appropriately advise my patients about SUDs and their effects	4.7	5.5	< 0.001
Role legitimacy			
I have the right to ask patients questions about SUD when necessary	6.1	6.3	0.15
My patients believe I have the right to ask them questions about SUD when necessary	4.9	4.9	0.90
Self-esteem			
I am inclined to feel like I am a success with patients with SUD	4.7	5.0	0.03
I am proud when working with patients with SUD	4.5	4.8	0.07
I am empowered to help patients with SUD	4.4	4.8	0.04
Attitudes toward MSGs			
I am aware of the basic principles of AA/NA	4.8	5.6	< 0.001
I think AA/NA are a valuable treatment for persons with SUD	5.6	5.8	0.17
I feel comfortable counseling a patient on the utility of AA/NA	4.2	5.6	< 0.001
I recommend AA/NA knowing their typical religious affiliations	5.2	5.0	0.28

MSG, mutual support group; SUD, substance use disorder

^aValues represent mean score on 7-point Likert scale from 1 = strongly disagree to 7 = strongly agree

^bPre-post comparisons using paired Student’s *t* test, with two-tailed *p* value < 0.05 considered statistically significant

statistically significant improvements in attitudes toward patients with SUD within the domains of motivation, work satisfaction, role adequacy, and self-esteem. Residents rated role legitimacy questions high on both the pre- and post-surveys, suggesting that at baseline residents understand the importance of caring for this patient population.

Our results are consistent with previous curricular interventions among internal medicine residents, which found that residents’ knowledge and attitudes toward MSGs improved after attending an AA meeting.⁴ Prior qualitative assessment of medical students’ reflections on attending MSG meetings demonstrated similar improvements in attitudes toward patients with SUD as well as greater comfort with future MSG referrals.¹ Listening to a patient with SUD’s personal experience increases empathy and self-reflection in medical providers; since the central focus of MSG meetings involves sharing deeply personal stories related to one’s substance use

and recovery, our results suggest MSG meetings may be an ideal venue for trainee reflection on their own biases toward persons with SUDs.⁹

As in our study, prior work highlighted that medical students' biggest hesitation toward MSGs was the religious nature of the meetings, which students felt could be off-putting to non-religious individuals.¹ Reservations may have to do with personal views on religion or general discomfort with the religious content of the meeting.¹ In contrast, patients with SUD are more comfortable with spirituality and religion than the trainees who care for them.¹⁰ These differences highlight the importance of discussing the role of spirituality in the treatment of SUD, which we highlighted in our post-reflection video. This also suggests an opportunity for further educational exposure to non-religious MSGs.

Our study has limitations. We implemented our intervention in a training program of one specialty at a single academic institution, so our results may not generalize to trainees in other specialties and institutions. There is heterogeneity among MSGs and thus views expressed by participants at the meetings may not be representative of all MSGs in Pittsburgh or elsewhere. Residents who attended MSG meetings but did not attend the focus group or completed questionnaires may have different opinions than those expressed in our study. Though our survey results were statistically significant, the change was small for the majority of our questions; thus, it is unclear how clinically significant these outcomes are. We did not collect data on resident demographics, prior experience (personal or professional) with SUD, or PGY of residents attending the focus group sessions, which all may affect attitudes. We chose to focus our outcomes on trainee attitudes and did not assess clinical outcomes or perform long-term follow-up to assess if attitudes remained significantly changed over time. Although residents felt more confident discussing MSGs with their patients, our outcomes do not objectively assess if attending MSG meetings changes resident likelihood to make future referrals, or the effectiveness of their counseling, which is an area for further investigation.

We believe this educational intervention could feasibly be included within all internal medicine training programs and could be further studied in training programs of other specialties.

Conclusions

Implementation of a brief educational intervention on MSGs gives residents an experience that impacts attitudes toward patients with SUD and confidence with MSG referrals.

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Compliance with Ethical Standards:

Conflict of Interest: The authors declare that they do not have a conflict of interest.

Ethical Approval: This study was given an exempt approval (PRO17080500) by the University of Pittsburgh Institutional Review Board (IRB).

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