

Contact-based NAMI Program Has Sustained Impact On Students' Perspectives On Psychiatric Illness

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Introduction

Despite the frequent comorbidity of medical and psychiatric illnesses, suboptimal identification and treatment of medical illness contributes to health disparities for patients with mental illness (MI).^{1,2}

Stigma and attitudes of medical practitioners represent a modifiable target for intervention to reduce health disparities for patients with mental illness.^{1,3}

While medical students initially have no less positive views of patients with MI than the general population,⁴ stigmatization of mental illness reaches its peak directly following the psychiatry rotation in the first clinical year.⁵ These short rotations often offer limited breadth, focusing on the most acute phase of illness without representation of longer-term management of MI and patient and family perspectives.⁶

Contact-based education, offering meaningful in-person contact with stigmatized groups, can provide upstream training opportunities for an array of future physicians during osteopathic medical education.^{7,8}

The Present Study

The National Alliance on Mental Illness (NAMI) Provider Education Program (PEP) is a standardized contact-based curriculum for medical providers.

- 5 classes are facilitated by a 3-member team: a health care provider with lived experiences of mental illness, a family member of someone affected by mental illness, and a person living well in recovery from mental illness. Classes address: 1. Understanding the experience of mental illness, 2. Supporting predictable emotions and needs, 3. Empathy's role in effective treatment, 4. Psychological elements of collaborative care, and 5. Applying collaborative treatment principles to patient care.

Our prior research provided compelling support for the initial efficacy of the NAMI PEP in a medical student sample.

- Compared to cohort-matched peers, students who volunteered to attend the NAMI PEP demonstrated improvements in affect, beliefs, and behaviors towards patients with MI, with gains maintained 3 months later.⁹ Limitations of this non-randomized, controlled trial design with a brief follow-up period precluded broader implications for osteopathic medical education.

To expand these promising pilot study findings, we:

- Integrated the NAMI PEP as a curricular requirement for all osteopathic medical students at the end of the third year. Extension to the entire OMS cohort offered the ability to comprehensively reach a broader array of students than those who voluntarily elected to pursue the pilot training.
- Evaluated the program's effectiveness with an extended follow-up assessment 6 months later.

Hypotheses

We hypothesized that our prior non-randomized, controlled trial results would be extended through demonstration of longitudinal effectiveness at 6-month follow-up in an entire cohort of third-year osteopathic medical students.

Methods

Participants

All OMS students at the end of the third year, having completed clinical rotations in psychiatry and other disciplines, attended the required NAMI Provider Education Program (N=211). Of these, 186 students enrolled in the optional research study (response rate=88%). Participants completed surveys directly prior to the program, at one-week follow-up, and at 6-month follow-up, and were compensated for survey completion. Average age was 27.14 ($SD=2.57$), with 55.91% identifying as male, 70.97% as White/European American (19.89% Asian/Asian American; 6.46% Multiracial or Other), 20.43% as having a mental illness, and 52.69% as having a personal history of mental health treatment.

Measurement and Analytic Approach

Seven validated measures assessed the three target domains of attitudes, affect, and behavioral intentions. Linear mixed-effect models for repeated measures were used for analyses, with AIC criteria for model selection.

As the first medical school to integrate the NAMI PEP into our curriculum, we found this contact-based mental health education led to sustained improvements in third-year students' affect, beliefs, & behavioral intentions toward patients with mental illness 6 months post-program.

Results

Results demonstrated effectiveness in each target domain of improved affect, beliefs, and behavior in working with patients with MI, with heightened impact over time. **Six months after the program**, students were: **less anxious** about interacting with patients with MI (-0.44, $p < 0.0001$), had **less stigma and stereotyping negative attitudes** about MI (-0.09, $p = 0.0403$; -0.32, $p = 0.0001$), reported **more confidence integrating psychiatric practice into routine medical care** (+0.54, $p < 0.00001$), and demonstrated **increased competence in principles of collaborative mental health treatment** (+0.1, $p = 0.0116$). These main effects were with all covariates held constant. In secondary analyses evaluating specific covariates, students with a history of mental health treatment, specialty interest in psychiatry, and personality traits higher in agreeableness, extraversion, and openness to new experiences achieved even greater benefit on select outcomes.

Mixed-Effect Model Analyses

Outcome Measure	Main Effects	
	1-Week Follow-up	6-Month Follow-up
Affect		
Anxiety about interacting with someone with MI	-0.18, $p=0.0165^*$	-0.44, $p < 0.0001^*$
Beliefs		
Stigma towards patients with MI	NS; $p=0.5423$	-0.09, $p=0.0403^*$
Stereotyping attitudes about MI	NS; $p=0.5641$	-0.32, $p=0.0001^*$
Behavioral Intentions		
Confidence integrating psychiatry in routine medical care	+0.37, $p < 0.00001^*$	+0.54, $p < 0.00001^*$
Competent caring for MI in a general medical setting	+0.1, $p=0.0075^*$	+0.1, $p=0.0116^*$

Representative Measures at 1-Week and 6-month Follow-Up



Note: MI=mental illness. NS=not statistically significant. += increase. -= decrease. * $p < 0.05$. All changes depicted are statistically significant and in the hypothesized direction.

Conclusions

This prospective cohort study supported the long-term effectiveness of integrating contact-based mental health education in the third year of undergraduate medical education. It advanced our prior pilot study through demonstration of sustained benefits 6 months after the program and generalizability to a broader array of learners.

Results highlighted the NAMI PEP's potential to promote lasting changes in factors influencing management of patients with psychiatric illness. Given the role of intentions in predicting future behavior, the finding of sustained improvements in this domain up to 6 months after the program is especially critical. This may facilitate increasingly skilled provision-of-care in future interactions with patients.

Limitations & Future Research

Although a practical challenge, objective assessments of student behavior change would improve the study conclusions. Further research could also extend the follow-up evaluation period, to examine whether benefits continue beyond the 6-month assessment period. Additionally, the study was implemented at a single institution and future research should examine the generalizability of findings to other medical education settings. Although we are the first medical school to implement the curriculum, the standardized nature of the NAMI PEP and structure of existing local NAMI affiliates lends itself naturally to this possibility.

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Acknowledgements

This project was made possible by a generous grant from the Iowa Department of Public Health (#115-1806). The authors would like to thank the following Des Moines University faculty and staff for their contributions to and support of this work: Sue Huppert, Chief External and Government Affairs Officer; Dr. Lisa Streyffeler, Chair of the Department of Behavioral Medicine, Medical Humanities, & Bioethics at Des Moines University; Dr. Noreen O'Shea, Assistant Professor in the Department of Behavioral Medicine, Medical Humanities, & Bioethics; and Doreen Chamberlin, MPH, NAMI Project Program Manager. We would also like to thank our local and national NAMI partners: Dr. Teri Brister, Director of Information, Support, & Education at NAMI; Peggy Huppert, Executive Director of NAMI Iowa; and all of our NAMI Provider Education Program instructors for their contributions to and support of this work.