

Bridging the Gap:

An Educational Intervention to Enhance Mental Health Competency Among Primary and Specialty Care Providers

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Abstract

Objective: To evaluate a novel curriculum aimed to increase nonpsychiatry providers' confidence in treating mental health conditions.

Methods: The study sample consisted of a cohort of convenience of nonbehavioral health physicians and advanced practice providers. The authors administered pre- and posttests to measure provider confidence in treating specific mental health diagnoses, utilizing specific classes of psychotropic medications, and managing specific clinical scenarios. Questions were ranked using a Likert

scale from 1 (least comfortable) to 5 (very comfortable). Paired sample *t*-tests were utilized to compare the pre- and posttest survey results. A follow-up survey was administered 1 month following the completion of the seminar, and the results were analyzed qualitatively.

Results: Twenty nonbehavioral health care providers attended an educational 2-day seminar on August 3–4, 2023. There were statistically significant improvements between the pre- and posttest measures of confidence in all 31 items measured. At 1-month follow-up, 87.5% (N = 14) rated their overall impression of the seminar as “excellent” and 12.5% (N = 2) rated their

impression as “very good.” At the 1-month follow-up, 15 participants reported treating patients for depression and anxiety, compared to 13 who had done so prior to the seminar.

Conclusions: An educational seminar hosted by psychiatrists is an effective intervention for increasing provider confidence in treating mental health conditions and could serve as a valuable method for expanding the mental health workforce.

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The prevalence of mental disorders in the general population is a significant public health concern, with a lifetime prevalence of 46.4%.¹ The COVID-19 pandemic has exacerbated mental health challenges, leading to a surge in rates of mental illness globally.² Access to mental health providers is limited, and this problem has been exacerbated by the pandemic.³ Workforce shortages exist across mental health professions and have worsened in all areas,⁴ and currently, 51.8% of patients who do receive mental health care do so in a primary care setting rather than from a psychiatrist.⁵ Despite this demand, nonpsychiatric providers feel inadequately trained in psychiatry to address the burgeoning mental health needs of their patient population.⁶

Recognizing the imperative to bridge this training gap, several models have been explored to integrate psychiatric expertise into primary care settings, the most widely studied of which is the collaborative care model.⁷ While these models demonstrate effectiveness, they are

often hindered by logistical challenges and limited by clinical, organizational, and financial barriers.⁸ Educational initiatives to increase the capability of clinicians already responding to the mental health needs of the community could serve to bridge these gaps.⁹ While primary care is a natural ally in this aim, specialty physicians may be an untapped resource. In response to these limitations, our proposed curriculum aims to enhance the competency of nonpsychiatry clinicians in managing mental health conditions within the primary care setting. Crucially, the curriculum emphasizes the importance of discerning when to refer patients to a psychiatrist for specialized care, ensuring a collaborative and comprehensive approach to mental health management.

The concept of provider “comfort” with mental health topics was previously explored by Stilwell et al.⁶ They found that midwestern primary care providers expressed a limited degree of comfort in managing mental health diagnoses and using psychotropic medications. They also

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Clinical Points

- Both primary care and specialty care providers may benefit from and have demonstrated interest in education about mental health care.
- A 2-day seminar hosted by psychiatrists is an effective and scalable intervention to increase provider confidence in treating mental health conditions.

found that adding the hypothetical option of having either a therapist or psychiatrist, respectively, as “backup” increased these providers’ reported confidence. We hypothesized that by utilizing a modified version of the survey conducted by Stilwell et al,⁶ we could determine whether we might see an improvement in provider confidence on this measure by conducting a relatively brief educational intervention.

METHODS

This study consisted of a 31-item survey adapted from a previously utilized assessment developed by Stilwell et al,⁶ which measured provider confidence before and after an educational intervention as well as a follow-up qualitative survey. The study sample consisted of a cohort of convenience of primary care and specialty providers who attended the educational seminar hosted at Clarkson College in Omaha, Nebraska, August 3–4, 2023. There were no exclusion criteria, and all attendees were eligible to participate. The Nebraska Methodist Hospital Institutional Review Board reviewed and approved the study. Each participant signed a consent form that outlined interventions to maintain confidentiality and was offered a maximum of \$250 upon completion of the final survey. The provision of this sum was deemed sufficient to partially compensate for missed clinical time that resulted from participation in this seminar. The study population was generated from physicians and advanced practice providers who responded to an advertisement posted in organization-wide emails and spread via word of mouth.

The study intervention involved a 2-day seminar, totaling approximately 13 hours of instruction. The itinerary for the 2 days of instruction can be found in Figure 1. The seminar was developed specifically for this project and taught by 2 of the authors (D.H.R. and R.R.A.) based on their experience in education and consultation and focused on managing common presentations of major mental health conditions that might be encountered in outpatient clinics. Topics of instruction were the basics of psychiatric assessment including the mental status examination, pathophysiology, practical psychopharmacology, basics of psychotherapy, models of

psychiatric care (including collaborative care, integrated behavioral health, and consultation), and special topics. The seminar also emphasized a model of risk stratification by teaching participants to screen and triage patients who could be safely managed by nonpsychiatrists versus those who should be promptly referred to psychiatry or an emergency department. For example, the module on depression focused on screening for bipolar disorder and psychosis and recommended referral to a psychiatrist for management rather than discussing treatment during the seminar. Following completion of the seminar, participants were eligible to participate in a bimonthly case consultation with one of the authors (D.H.R.) that lasted 1 hour each and took the form of virtual office hours to discuss patients and continued for 6 months following the completion of the seminar. Additionally, participants were provided access to archived lectures on psychopharmacology from the 2022 Annual Psychopharmacology Conference presented by the Massachusetts General Hospital Psychiatry Academy.

The primary outcome measure of the study was change in provider comfort level as measured on a survey adapted with permission from Stilwell et al.⁶ The originally published survey was utilized to measure provider confidence in a sample of Midwest primary care providers without an associated intervention, and in the present study, this measure was adapted by adding additional questions and utilizing it as a longitudinal assessment. This survey was administered immediately prior to and immediately following completion of the seminar, and anonymity was ensured by generating a unique identification code for each respondent. The 31-item survey asked respondents to rate their comfort level on a 5-point Likert scale (1 = least comfortable and 5 = most comfortable) regarding managing specific diagnoses (eg, unipolar depression, anxiety disorders, and posttraumatic stress disorder), utilizing specific medication classes (eg, selective serotonin reuptake inhibitors, tricyclic antidepressants, mood stabilizers, and atypical antipsychotics), and managing specific clinical scenarios (eg, “knowing when to refer to a psychiatrist” and “knowing when a patient needs to be psychiatrically hospitalized”).

Data analyses were conducted in SPSS. Descriptive statistics and paired sample correlations were computed for each pre- and posttest outcome pair. Paired sample *t*-tests were used to compare the pre- and posttest survey results.

One month following the completion of the seminar, an additional follow-up survey was sent to evaluate the quality of the seminar and the changes in clinical practice that resulted from the seminar. The survey included a mix of Likert scale and short answer questions, which were analyzed qualitatively by grouping responses that were reported by more than one participant and reviewing for recurring themes.

Figure 1.
Seminar Itinerary^a

Day 1	
First Principles	
8:00–8:30	1. Welcome and Introductions
8:30–9:00	2. General Principles of Psychiatric Assessment
9:00–9:30	3. Assessment of Mental Status
9:30–9:45	3. Self-Assessment Module
9:45–10:00	Q & A
10:00–10:20	Break
Module 1: Depression	
10:20–10:45	4. Assessment and Phenomenology of Depression
10:45–11:30	5. Introduction to Common Antidepressants: Practical Prescribing
11:30–12:00	Q & A
12:00–1:00	Lunch
1:00–1:30	6. Introduction to Psychotherapies for Depression
1:30–2:30	7. Advanced Psychopharmacology: Moving Down the Algorithm
2:30–2:45	8. Special Topic: Suicide Risk Screening
2:45–3:05	Break
3:05–3:25	9. Clinical Pearls
3:25–4:00	10. Case Presentations
4:00–4:30	Q & A, Wrap-up, Closing
Day 2	
Module 2: Anxiety	
8:00–8:15	1. Welcome and Any Follow-up
8:15–8:45	2. Anxiety, the Fear Response, and the Neuroscience of Anxiety
8:45–9:15	3. Anxiety Across the Lifespan
9:15–9:35	4. Assessment and Phenomenology of Anxiety Disorders
9:35–10:00	Q & A
10:00–10:20	Break
10:20–11:00	5. Pharmacology of Anxiety
11:00–11:20	6. Introduction to the Psychotherapies for Anxiety
11:20–11:45	7. Models of Care
11:45–12:00	Q & A
12:00–1:00	Lunch
1:00–1:20	8. Psychopharmacology of PTSD
1:20–2:00	9. Exercise: What's My Diagnosis?
2:00–2:30	10. Advanced Psychopharmacology: Clinical Pearls
2:30–2:45	Q & A
2:45–3:00	Break
3:00–3:30	11. Advanced Psychopharmacology: Benzodiazepines. Are They All the Same and Are They All Bad?
3:30–4:00	12. Making a Difference

^aThe itinerary for the educational seminar on August 3–4, 2023.

RESULTS

The study population consisted of a cohort of 20 nonpsychiatrist clinicians that ranged in career phase from recent graduates to recently retired. The participants constituted a diverse training background (11 MD, 6 advanced practice registered nurses, 2 physician assistants, and 1 provisionally licensed mental health practitioner) and type of specialization (5 family medicine, 1 gastroenterology,

1 internal medicine, 1 nephrology, 2 obstetrics/gynecology, 2 palliative care, and 8 surgical oncology).

All 20 participants completed both the pre- and posttests. A paired sample *t*-test was performed to evaluate whether there was a significant difference between the pre- and posttest confidence ratings for each item. Overall, there was a statistically significant improvement in comfort between pre- and posttest for all items assessed. These results are displayed in Table 1.

Table 1.
Educational Seminar Pre- and Posttest Results (N = 20)^a

Variable	Pretest		Posttest		Paired sample correlation		Paired t-test
	Mean	SD	Mean	SD	R	P	P
SSRIs/SNRIs	3.58	1.22	4.67	0.49	0.55	.018	<.001
TCA's	2.67	1.14	3.83	0.79	0.59	.010	<.001
MAOIs	1.22	0.43	1.97	0.92	0.62	.006	<.001
Atypical antidepressants	2.89	1.23	3.94	1.06	0.27	.285	.005
Valproic acid	1.89	1.02	2.39	1.24	0.73	<.001	.024
Lithium	1.67	0.91	2.44	1.38	0.83	<.001	<.001
Other mood stabilizers	1.61	0.78	2.44	1.20	0.51	.030	.003
Typical antipsychotics	2.17	0.99	3.00	1.19	0.60	.008	.002
Atypical antipsychotics	2.22	1.06	3.81	0.99	0.41	.092	<.001
Benzodiazepines	3.28	1.23	4.14	1.03	0.37	.137	.011
SUD medications	2.19	1.13	2.86	1.16	0.46	.054	.029
MDD	3.39	1.20	4.67	0.49	0.54	.020	<.001
Anxiety disorders	3.33	1.19	4.67	0.49	0.51	.030	<.001
PTSD	2.33	1.14	3.94	0.73	0.74	<.001	<.001
Bipolar disorders	1.89	0.90	2.89	1.18	0.65	.003	<.001
Schizophrenia	1.44	0.62	2.00	1.14	0.84	<.001	.004
OCD	2.22	1.31	3.17	1.25	0.80	<.001	<.001
Sleep disorders	2.72	1.02	3.11	0.90	0.81	<.001	.015
SUDs	2.50	0.86	3.11	0.96	0.64	.004	.004
Starting a psychiatric medication	3.17	1.15	4.56	0.62	0.61	.007	<.001
Adjusting an existing psychiatric medication	3.11	1.23	4.39	0.61	0.65	.004	<.001
Managing SI	2.33	1.03	3.83	0.99	0.29	.243	<.001
Knowing when to refer to a psychiatrist	3.28	0.75	4.72	0.46	0.58	.013	<.001
Knowing when to refer to a therapist	3.72	0.90	4.67	0.49	0.72	<.001	<.001
Referring to community mental health services	3.78	0.94	4.50	0.62	0.30	.222	.005
Managing mental health complications of physical diseases	3.53	0.70	4.44	0.51	0.21	.400	<.001
Knowing when a patient needs to be psychiatrically hospitalized	2.69	0.93	4.61	0.50	0.49	.039	<.001
Performing a psychiatric interview	2.33	0.97	3.86	0.72	0.74	<.001	<.001
Seeing a psychiatric patient in a general medical setting	2.89	1.32	4.33	0.77	0.56	.016	<.001
Seeing a psychiatric patient in a psychiatric office	2.00	1.24	3.67	1.14	0.67	.002	<.001
Documenting an MSE	2.75	1.17	3.83	0.71	0.80	<.001	<.001

^aResults of pre- and posttest in which participants were asked to rate their comfort on a 1–5 scale with each prompt. Higher results indicate a higher degree of confidence. For each medication class, examples of common drug names were also provided.

Abbreviations: MAOI = monoamine oxidase inhibitor, MDD = major depressive disorder, MSE = mental status examination, OCD = obsessive-compulsive disorder, PTSD = posttraumatic stress disorder, R = correlation coefficient, SI = suicidal ideation, SNRI = serotonin-norepinephrine reuptake inhibitor, SSRI = selective serotonin reuptake inhibitor, SUD = substance use disorder, TCA = tricyclic antidepressant.

Of the seminar participants, 80% (N = 16) completed the follow-up survey, and the results are displayed in Table 2. Of the respondents, 87.5% (N = 14) rated their overall impression of the seminar as “excellent,” and 12.5% (N = 2) rated their impression as “very good.” Regarding depression, 56.25% of respondents reported that their confidence in managing depression changed “very much” after attending the seminar, and the remaining 43.75% reported that it changed “somewhat.” Regarding anxiety, 43.75% of respondents reported that their confidence in managing anxiety improved “very much” after attending the seminar, and the remaining 56.25% reported that it changed “somewhat.” At the 1-month follow-up, 15 participants reported treating patients for depression and anxiety compared to 13 who had done so before.

Themes that emerged from a qualitative review of survey comments also revealed that, following completion of the seminar, participants (1) felt more confident in

diagnosing and managing mental health conditions, (2) were more likely to titrate medications more quickly, (3) were more likely to escalate to higher doses of medications, (4) expressed more confidence in switching medications when necessary, and (5) felt that the project was worth repeating for more clinicians.

DISCUSSION

The present study demonstrated that a 2-day educational seminar significantly increased provider confidence across all domains studied. Follow-up survey results indicated that 87.5% rated the seminar as “excellent,” and 56.25% reported that their confidence in managing depression increased “very much,” with similar results of 43.75% for anxiety. Qualitative feedback highlighted increased confidence in diagnosing

Table 2.

Follow-Up Survey Results^a

Question	N	Poor	Fair	Good	Very good	Excellent
Overall impression of the seminar	16	0 (0)	0 (0)	0 (0)	2 (12.5)	14 (87.5)
Quality of the lecturers	16	0 (0)	0 (0)	0 (0)	2 (12.5)	14 (87.5)
Quality of lectures on pharmacology	16	0 (0)	0 (0)	0 (0)	2 (12.5)	14 (87.5)
Quality of lectures on diagnosis	16	0 (0)	0 (0)	0 (0)	5 (31.25)	11 (68.75)
Question	N	Less confidence		No change	Somewhat more confidence	Very much more confidence
Ability to manage depression	16	0 (0)		0 (0)	7 (43.75)	9 (56.25)
Ability to manage anxiety	16	0 (0)		0 (0)	9 (56.25)	7 (43.75)
Question	N			Too basic	Just right	Too advanced
Lectures on pharmacology/treatment	16			2 (12.5)	14 (87.5)	0 (0)
Lectures on diagnosis	16			1 (6.25)	15 (93.75)	0 (0)
Question	N			Yes	No	Maybe
Have you treated any patients for depression or anxiety following this seminar?	16			15 (93.75)	1 (6.25)	0 (0)
If yes, did you treat patients for depression or anxiety prior to this seminar?	15			13 (80)	2 (13.33)	1 (6.67)

^aThe results of a survey of participants 1 month following completion of the seminar.

and managing mental health conditions, quicker medication titration, and a willingness to repeat the project for more clinicians.

On comparable items, the results of our pretest survey were strikingly similar to those previously reported by Stilwell et al.⁶ The results of their survey are reported without raw averages on a bar graph, so the degree of similarity is not directly calculable, but visually, the comfort level for each diagnosis and medication class was within 1 standard deviation of our results. The Stilwell et al⁶ study had a larger study population (N = 54) and was limited exclusively to providers in primary care. Our study further expands this population but also, uniquely, involves multiple subspecialty clinicians to further generalize these results. Due to the consistency of these findings, this further supports the conception of provider “comfort” in managing mental health as a valid instrument of measurement. Stilwell et al⁶ found that the idea of having either a therapist or psychiatrist as backup significantly increased provider confidence. Our design allowed for follow-up meetings to discuss patient issues or general concerns but did not allow for access to a psychiatrist at the point of care. Even without this safety net, this study adds to this literature by demonstrating that a relatively brief, scalable educational intervention can significantly increase provider confidence.

This is the first study, to our knowledge, that demonstrated the efficacy of an educational intervention for both primary and specialty care providers. This is an important finding because mental illness and mental health treatment cannot be neatly siloed into either primary care or psychiatry. After all, mental health affects and is affected by many other medical illnesses.

Specialists see many patients that have psychiatric comorbidity, and many patients see them more than their primary care providers. Additionally, many of the concerns that patients seek specialty care for, such as globus phenomenon, chest pain, constipation, and abdominal pain, have roots in or are exacerbated by psychological distress in many cases. Having more facility with diagnosing and even engaging in the conversation of mental health concerns may be of substantial value for the providers, their patients, and society. Our intervention was well received by all participants, and while each attendee brought varying levels of experience to the seminar, a significant majority of them felt that the level of content was appropriate to their level of expertise. A replication of this study is currently underway as of the time of this writing. Participants were offered compensation for their participation in this study, but the authors feel that this was unlikely to have influenced the study results as the compensation was nominal compared to the cost of lost productivity, and most participants chose to donate their compensation back to the study organization to facilitate future seminars.

One limitation of this study is the potential effect of increased provider confidence generalized to all items, not just the ones that were specifically addressed during this seminar (eg, schizophrenia). This halo effect may suggest a heightened familiarity with approaching patients with mental health issues and being able to recognize when to refer. Conversely, this may be a weakness of the depth of participant concentration during the survey completion. Additionally, several items that were not significantly addressed in this seminar had nonsignificant correlations (eg, managing suicidal ideation), indicating

that there was a nonlinear distribution of scores, and while these were significant, it is possible that with a larger sample size, this effect may have disappeared. Follow-up times for this study were short, and it is possible that with time, these effects may have disappeared. Finally, as this was a pilot study, the sample size was low, and information about practice patterns before and after the seminar was limited. These limitations will be addressed with subsequent studies.

CONCLUSION

This study demonstrates that an educational intervention delivered in the form of a 2-day seminar is an effective intervention for increasing provider confidence in managing mental health conditions. This study was novel in that it provided additional validation of the survey instrument and involved specialists as well as primary care providers. The study results support the idea that educational interventions can be a valuable tool in addressing the training gap among nonpsychiatric providers. The researchers plan to replicate the study to further validate the findings and explore longer-term impacts on clinical practice.

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