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Improving Family Medicine Residents' Confidence to Assess and Manage Psychiatric Crises in an Outpatient Clinic

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Abstract

Background and Objectives: Primary care physicians (PCPS) are increasingly responsible for managing mental health, which can involve assessment and management of a psychiatric crisis. Psychiatric crises can include acute suicidal or homicidal ideation and capacity-impairing psychosis. Evidence suggests PCPs do not consistently assess or manage psychiatric crises and it is unclear how to train PCPs to address these potentially lethal scenarios. The main objective was to increase PCP resident confidence in assessing and managing a range of psychiatric crises. **Methods:** In a family medicine residency program that trains PCPs, we developed a three, 1-h didactic series and point-of-care reference documents. The curriculum focused on screening, outpatient management, inpatient criteria, logistics of voluntary and involuntary admission, and legal considerations. Resident confidence was measured by questionnaire before and 3 months after curriculum completion. **Results:** Prior to training, residents did not feel confident in assessing and managing psychiatric crises, except a slight majority (62%) in screening for suicidal and homicidal ideation. Resident confidence significantly increased for every aspect of assessing and managing psychiatric crises after the training (all *P*-values $<$ .05), with the largest improvements for further assessing hallucinations, delusions, and suicidal and homicidal ideation. **Conclusions:** As PCPs increasingly manage mental illness, they will encounter a range of psychiatric crises in clinic. This study demonstrates that a brief training intervention and point-of-care resources can significantly increase PCP confidence to assess and manage these urgent, dangerous scenarios.

Keywords

family medicine residency training, psychiatric crises, primary care, primary care physician

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Introduction

Primary care physicians (PCPS) are increasingly managing mental health in outpatient settings.[1] PCPs manage most of the care for mild-moderate mental illnesses, (eg, anxiety and depression), and care for up to one-third of patients with severe mental illness.[2] Rising rates of depression,[3] a nationwide shortage of psychiatrists,[4] which is accentuated in rural areas,[5] and insurance barriers[6] all contribute to the increased frequency of PCPs managing mental illness. Mental health care includes assessing and treating psychiatric crises, which are defined as "any situation in which a person's behavior puts them at risk of hurting themselves or others and/or prevents them from being able to care for themselves or function effectively in the community."[7] Forms of psychiatric crises include acute suicidal ideation, acute homicidal ideation, and psychosis that interferes with an individual's decision-making capacity. As PCPs increasingly manage mental health and encounter psychiatric crises, there is an urgent need for evidence-based trainings for PCPs in practice and residency requirements (ie, from the American Board of Family Medicine or Accreditation Council for Graduate Medical Education) to address this life-and-death issue.

There is limited research of PCP assessment of psychiatric crises; this is critical because nearly half of individuals who die by suicide have contact with their PCP within 1 month of their death.[8] The problem begins with screening. PCPs have been found to assess for suicidal ideation in only 36% of patients experiencing moderate to severe depressive

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symptoms.[9] Another study found that, even after implementation of outcome-improving practice guidelines for depression, PCPs assessed for suicidal ideation in only 24% of depression-focused clinic visits.[10] At well child visits, most PCPs (61%) do not screen for suicidal ideation.[11] Education may be key; this study found that PCPs with knowledge of suicide risk assessment were almost 5 times more likely to screen than those without.[11] The prevalence of homicidal ideation and psychosis in primary care clinics in the U.S. is not known; however, since PCPs do not consistently assess for suicidality, one can assume that homicidality and psychosis are not reliably assessed for either.

Research into factors that hinder PCPs from adequately assessing and managing psychiatric crises is extremely limited and focuses on suicidal ideation only. Inadequate training likely contributes to PCPs not assessing and managing psychiatric crises; Graham et al found that PCPs felt more competent to assess and treat suicidality after formal training.[12] Since solely screening for suicidal ideation does not reduce suicide attempts,[13] professional training on how to assess and then manage a crisis is crucial. There have been a few calls to address this training need in residency curricula where practice patterns for PCPS are established.[13,14] Some residencies have risen to this call by implementing trainings and workflow changes, such as workshops and standardized charting templates, finding significant benefit.[15] These studies document helpful interventions to consider when creating and implementing curricula; yet, they are limited in that they solely focus on suicidality and it cannot be concluded that this curricula is beneficial for other types of crises. This study helps fill this critically important literature gap by describing a brief training intervention and point-of-care resources that improved family medicine resident confidence in the outpatient assessment and management of all types of psychiatric crises.

Methods

The current study took place at the primary care clinic of the Mayo Clinic Family Medicine Residency in Eau Claire, Wisconsin. Although Eau Claire is considered an urban cluster,[16] it serves a large catchment area of rural communities and family medicine residents regularly rotate through more remote rural outpatient clinics. Additionally, access to adult psychiatry in the area is extremely limited and often PCPs, including family medicine residents, fill the gap in caring for patients suffering from severe mental illness. The program admitted its first class of residents in 2017 and did not have a residency behavioral scientist until late 2019. Before this research project in 2019-20, faculty physicians varied widely in their confidence and experience of managing psychiatric crises in clinic. The program had no professional training or standardized process on how to assess for and then manage a psychiatric crisis in the outpatient setting. Therefore, the aim of the current study was to increase the resident physicians' confidence in assessing and managing various psychiatric crises that can present in a clinic visit. The behavioral scientist created practice guidelines on how to manage a range of psychiatric crises and then developed a curriculum for residents. It was hypothesized that implementation of a brief didactic series, access to supplemental material with workflow changes, and as-needed consultation with the behavioral scientist would improve residents' confidence.

Participants

Participants were family medicine residents enrolled in the Mayo Clinic Family Medicine Residency—Eau Claire, Wisconsin, program. The family medicine residency is a 3-year program, with a class of 5 residents each year. Therefore, each time the residents were surveyed, there was a potential for a total of 15 participants.

Procedures

This study was exempted from review by the Mayo Clinic Institutional Review Board because the project was conducted in an educational setting and was part of a normal educational practice. The curriculum was implemented via monthly 1-h didactic sessions delivered over 3 consecutive months. Attendance was 100%, because all residents were excused from their clinical duties to attend these didactics.

The first didactic hour focused on training the residents on how to screen for suicidal ideation and behaviors using the Columbia-Suicide Severity Rating Scale (C-SSRS), a valid and reliable questionnaire for assessing suicidal ideation and behaviors.[17] The residents were given a physical copy of the C-SSRS to have in hand and then they were taught how to use the assessment through PowerPoint presentation and watching videos created by the Center for Practice Innovations.[18] Following this activity, the group reviewed cases together to differentiate if a behavior was a suicide attempt or not.

The second didactic had 4 main objectives: (1) defining the types of psychiatric crises, (2) discussing how to screen for all crises (eg, reminding to use the C-SSRS for suicidal ideation and behaviors, teaching how to screen for homicidal ideation and psychosis that impairs decision-making capacity), (3) discerning when a crisis met criteria for inpatient psychiatric hospitalization, and (4) understanding the logistics of admitting a patient to the inpatient psychiatric unit, including (a) admitting directly to the inpatient unit or (b) indirectly through the ED, followed by how to do each of those options when the patient was being voluntarily or involuntarily admitted. Material was presented via PowerPoint and included group review of individual cases to determine if a patient met criteria for

Table 1. Content of Didactic Series for Psychiatric Crisis Assessment and Management in Outpatient Clinic.

Screening	Suicidal ideation and how to use Columbia Suicide Severity Rating Scale: (1) Suicidal ideation and its intensity; (2) suicidal behavior, including types of attempts and preparatory behavior
	Homicidal ideation
	Active versus passive ideation, acute versus not acute
	Intent and plan
	Hallucinations—commands to harm self or others
	Delusions—capacity to maintain safety
Inpatient Criteria	Suicidal ideation with intent
	Homicidal ideation with intent
	Command and/or harm related hallucinations
	Delusions/intoxication impair capacity to maintain safety
	Patient is voluntary admit with suicidal or homicidal ideation
Outpatient Management	Safety plan development
	Identify triggers of significant distress
	Identify warning signs of crisis developing
	Discuss internal coping strategies (self-soothing, exercise, distraction) Discuss external coping strategies (activities, people, places)
	Review protective factors and identify most important reason for living
	Create safe home environment (weapon removal)
	Request permission to talk with support person (partner, parent, roommate)
	Involve integrated care staff if needed (psychologist, social worker)
	Provide contact information for professional crisis support services
	Schedule follow-up with PCP
	Recommend follow-up with current therapist or provide referral for therapy
Legal Obligations	Criteria to break confidentiality
	Criteria to initiate involuntary admission process
Strategies for Achieving Voluntary Admission	Goal is voluntary admission: Empathize, validate, elicit their plan, suggest inpatient if they do not, query fears/concerns, elicit strategies to address fears/concerns, offer own opinion, offer to call someone on their behalf
Logistics	Voluntary admission
	Involuntary admission: State requirements/process, importance of documentation
	Institutional policies
	Admission through ED
	How to transport from clinic to ED
	Direct admission from clinic
	How to transport from clinic to inpatient unit
	Never leave patient in crisis alone in room
	Never try to physically restrain
	Documentation template in EMR

inpatient hospitalization, with special focus on what further information was needed to make such a determination.

For the third and last didactic, the objectives included (1) reviewing the definition of a psychiatric crisis, (2) reviewing how to screen for all crises, (3) reviewing criteria for inpatient psychiatric hospitalization and logistics thereof, and (4) understanding appropriate options for outpatient management of psychiatric crises that did not meet admission criteria. The curriculum content is summarized in Table 1.

A one-page practice guideline document was created that reviewed each crisis, what to screen for (eg, ideation, intent, plan), and step-by-step instruction for what to do depending on if the patient was remaining outpatient or being admitted voluntarily or involuntarily to an inpatient unit (see Figure 1). Specifically, this practice document was developed by the residency's behavioral scientist and then reviewed by another primary care behavioral scientist, followed by review from several residency faculty physicians. Additionally, since information on how to admit directly to the inpatient unit is referenced in this document, the behavioral scientist obtained input from nursing leadership in the inpatient behavioral health unit on how to most effectively provide a safe admission. This practice guideline document was referenced during the second and third didactic to orient the residents to it and remind them of its availability in their workflow. Once residents started using this document in practice, they provided feedback to the behavioral scientist and the document was updated based on that feedback. The document was stored on the residency shared virtual drive, in resource binders with each clinical team, and posted prominently on a bulletin board in the clinic's precepting space.

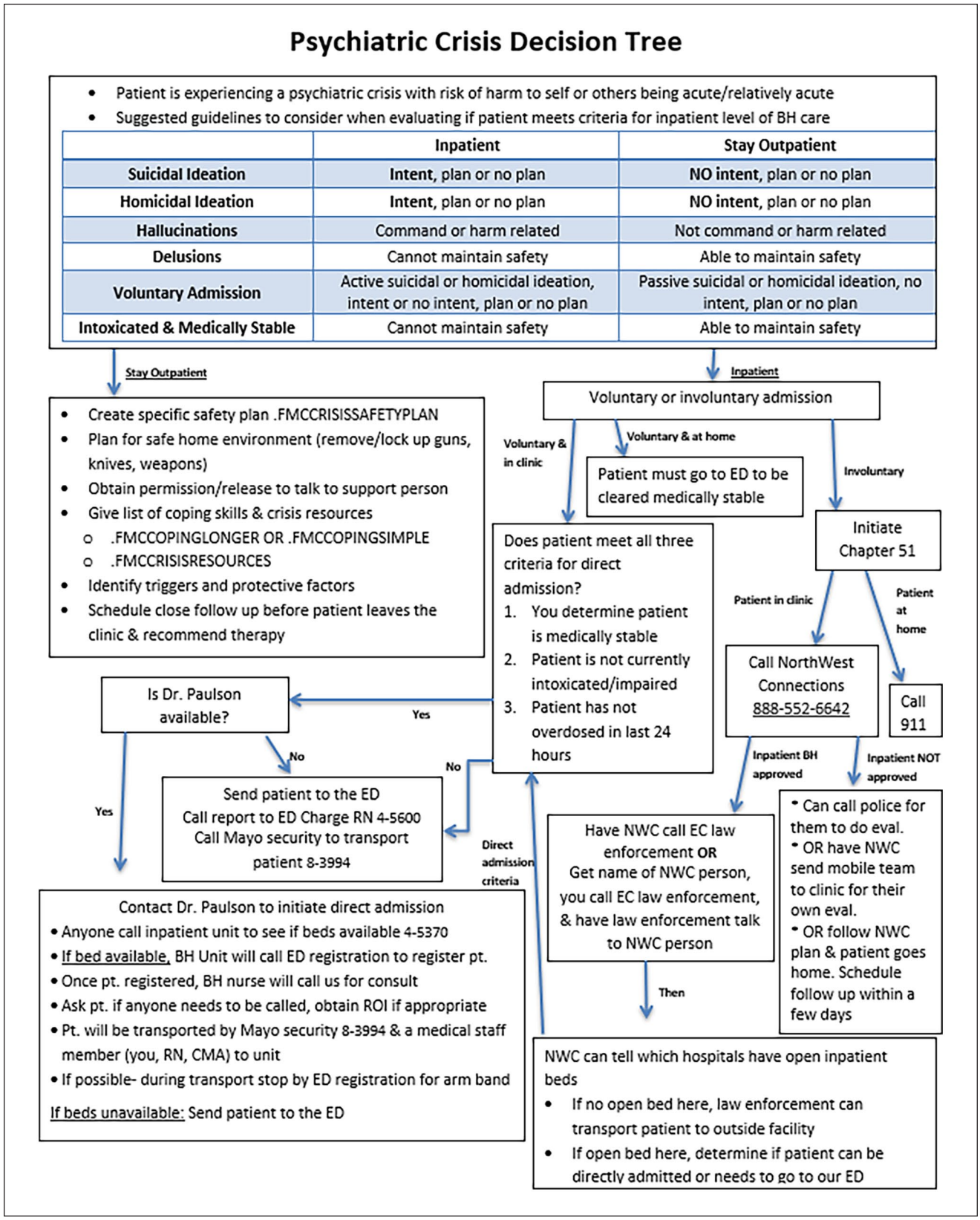

Figure 1. One-page practice guideline document to assess and manage a psychiatric crisis.

Psychiatric crisis is defined as any situation in which a person's actions, feelings, and behaviors can lead to them hurting themselves or others, and/or put them at risk of being unable to care for themselves or function in the community in a healthy manner.

This questionnaire is designed to assess confidence in your own abilities. Therefore, how confident do you feel about your abilities to….

1. Screen for suicidal or homicidal ideation?
2. Further assess suicidal or homicidal ideation?
3. Screen for hallucinations and delusions?
4. Further assess hallucinations and delusions?
5. Determine if a patient is currently experiencing a psychiatric crisis?
6. Determine if a patient does or does not meet criteria for inpatient psychiatric hospitalization?
7. Overall, manage a situation when a patient is high-risk for suicide or homicide but does not meet criteria for inpatient psychiatric hospitalization?
8. Overall, manage a situation when a patient does meet criteria for inpatient psychiatric hospitalization?
9. Differentiate if a patient is a voluntary or involuntary admission?
10. Determine if a patient meets criteria for direct admission to the inpatient psychiatric unit or needs to go to the emergency department prior to admission?
11. Initiate safe transportation for a patient that needs to go to the emergency department?
12. Employ direct admission steps when patient is a voluntarily admission into the inpatient behavioral health unit.
13. Initiate Chapter 51 protocol when patient needs inpatient behavioral health but is involuntary.
14. Collaboratively complete a personalized safety coping plan with a patient who does not qualify for inpatient psychiatric hospitalization?
15. Determine if you have enough information to break confidentiality and call a patient's family or friends for safety reasons?
16. Recognize when to utilize integrated care staff to assist in a psychiatric crisis?
17. Utilize external resources to help you manage a psychiatric crisis, such as Northwest Connections?

0= not confident at all, 1= a little confident, 2= somewhat confident, 3= fairly confident, 4= extremely confident

Figure 2. Questionnaire administered to family medicine residents before and after didactic series.

Additionally, a reference was integrated into the electronic medical system (Epic) that reviewed the steps for each different crisis and included the appropriate verbiage to document the crisis and steps taken. Residents were taught how to use this by viewing the reference and watching the behavioral scientists complete it step-by-step in both the second and third didactic. They were then encouraged to practice using the reference independently and ask questions as they arose. Lastly, the behavioral scientist co-precepted with faculty physicians in the clinic 12 h a week and was available for consultation 20 h a week, allowing conversations, assistance, and review of any skills and steps related to the curriculum.

Evaluation Methods

The behavioral scientist created a brief 17 item questionnaire to measure the residents' confidence in their ability to assess and manage psychiatric crises. Due to the complexity of Wisconsin state law, coupled with institutional policies, published generic measures of resident confidence assessment were not appropriate. Further, literature review shows that it is very common to use unvalidated assessments of family medicine resident confidence aimed at the particular educational objective. The items were very specific to the steps required for assessing and managing psychiatric crises in our clinic. The questionnaire (see Figure 2) was administered at the beginning of the first didactic before any material was presented (Pre) and then again 6 months later (Post). Study data were collected and managed using REDCap.[19] Administering the survey 3 months after completion of the didactic series allowed the residents the opportunity to apply the information in their clinical practice. Prioritizing anonymity inadvertently resulted in being unable to match before and after responses to individual participants. Resident responses were numerically valued on a 5-point Likert scale (0=not confident at all, 4=extremely confident).

The difference in residents' confidence ratings before and after the training was assessed using the Mann-Whitney *U* test, because the data was not normally distributed as assessed by the Shapiro-Wilk test (all *P*-values $< .05$). Analyses were conducted in *R* version 3.6.3.[20] Type one error rate was set at 5% without adjustment for multiple comparisons. Analyses were performed on raw scores to preserve measured variation and maximize statistical power. Results are described dichotomously as confident (fairly to extremely confident) or not (not at all to somewhat) to convey the degree of change most simply.

Results

The response rate was 87% pre-intervention (n=13) and 93% post-intervention (n=14). The portion of residents feeling confident handling the various components of assessing and managing psychiatric crises before and after the training are presented in Figure 3. Before the training,

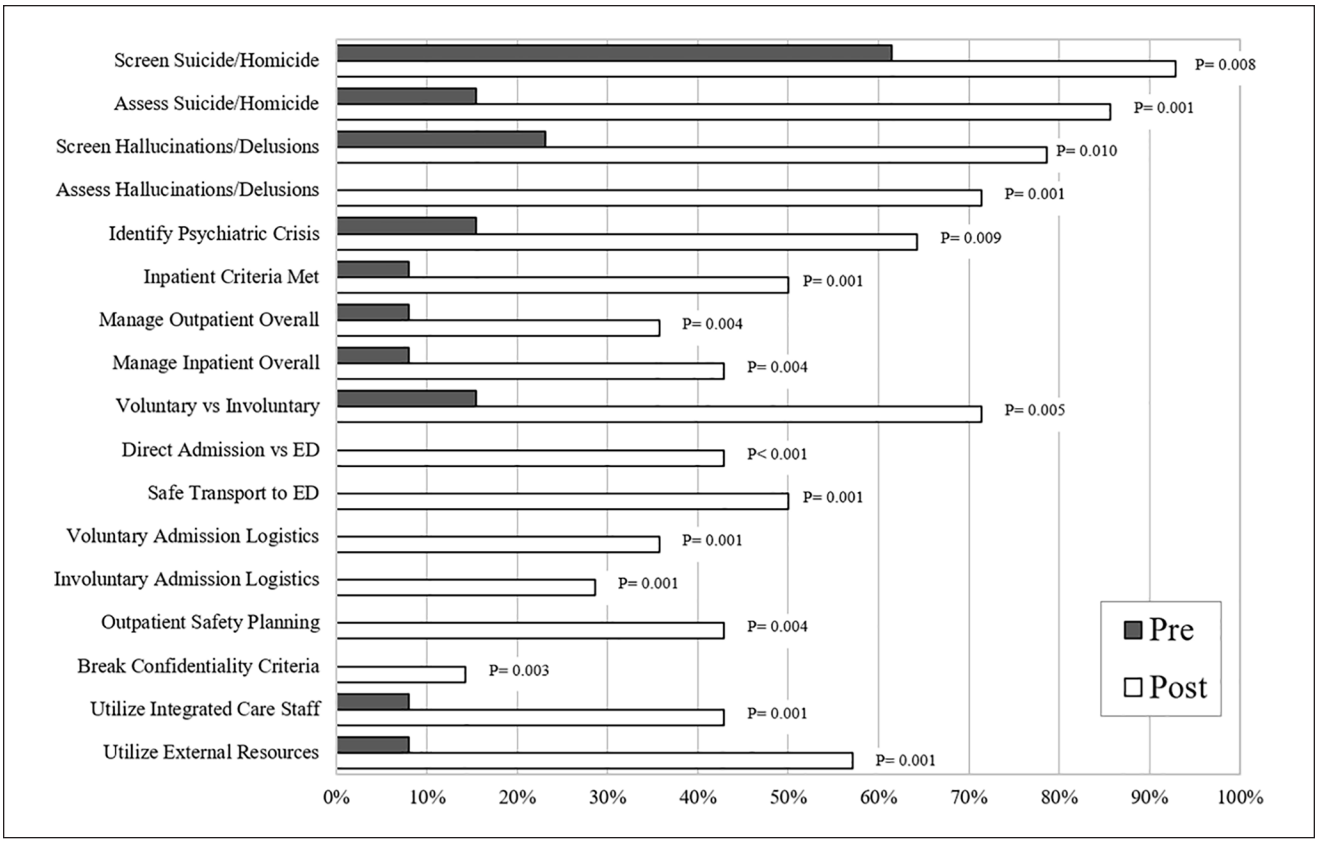

Figure 3. Resident confidence managing psychiatric crisis in outpatient clinic.
Bars represent the percentage of residents that reported feeling fairly to extremely confident addressing specific components of assessing and managing psychiatric crises before and after training. *P*-values calculated by Mann-Whitney *U* test.

no resident felt confident (1) assessing hallucinations and delusions, (2) determining whether a patient met criteria for direct admission to the inpatient psychiatric unit or needed to go to the ED first, (3) initiating safe transportation to the ED, (4) directly admitting a patient to the inpatient unit when the patient was a voluntary admission, (5) initiating Wisconsin's Chapter 51 protocol (Wisconsin's involuntary commitment requirements), (6) collaboratively developing a personalized safety coping plan, or (7) determining if there was enough information to break confidentiality and include a third party. Before the training, screening for suicidal and homicidal ideation was the only item that a majority of residents felt confident about (62%).

Resident confidence increased for every aspect of assessing and managing psychiatric crises after the training (Figure 3). The largest improvements in resident confidence were observed for assessing for hallucinations and delusions (+71%) and assessing for suicide and homicide (+70%). Importantly, the proportion of residents feeling confident that they could recognize when inpatient criteria were met rose from 8% to 50% and the prevalence of confidence managing the entire inpatient admission process rose from 8% to 43%, while overall confidence managing a psychiatric crisis that does not meet inpatient criteria rose from 8% to 36%.

Discussion

A short didactic series coupled with a point-of-care, clinic-specific, practice guideline document improved family medicine resident confidence in all aspects of assessing and managing multiple types of psychiatric crises in a family medicine residency clinic. The increased confidence found 3 months after the trainings suggests durable retention of these processes and skills. Given the mental healthcare milieu in the U.S., this training helps fill a critical need to prepare PCPs to appropriately assess and manage psychiatric crises.[13,14] A simple, short intervention was chosen to increase generalizability due to PCPs and family medicine residents having innumerable competing demands on their time. This study demonstrates that 3 h of training and a one-page practice guideline, specific to clinic and state regulations, can help improve PCP confidence to help patients experiencing a psychiatric crisis.

This training uniquely equips family medicine residents and PCPs to handle psychiatric crises beyond suicidal ideation, including homicidal ideation, harm-related command hallucinations, and delusions that impair a patient's ability to maintain short-term safety. All other trainings to address psychiatric crises in primary care reported in the literature singularly focus on suicidality. Educating physicians on all crises is critical because these other crises will continue to occur in primary care. As Graham et al have shown,[12] if physicians have not obtained professional training, they are less willing to assess and treat, and if training is only focused on suicidal ideation, a significant number of potential crises will be missed, with potentially lethal consequences.

Limitations and Future Research

This study has several limitations. First, there was no comparison group, so improvements may in part be due to other changes in the program, health system, or the normal development of trainees. Second, the intervention included didactics and multiple versions of quick, point-of-care references; thus, it is unclear which component(s) were most valuable. The behavioral scientist is often available for in-the-moment consultation, which is a resource not available in most primary care clinics. Third, this study took place at a single family medicine residency program, so the results may not generalize to other family medicine residency program settings, other specialties, or independently practicing PCPs. Other drawbacks of this study's design were (a) an inability to match each participant's data from pre-intervention to response at post-intervention and (b) the limited number of participants, both of which decrease statistical power; however, the threshold set for statistical significance was consistently surpassed. Also, the training could likely be improved because fewer than half of residents were confident on 8 of the items after completing the curriculum. Improvements could include a fourth hour of training to synthesize all 3 didactics, a 6-month booster training hour, and more opportunity for role playing or watching case examples. It would also be helpful to survey confidence beyond the 3 months to better assess how well this critical information is retained long-term. Finally, confidence in assessing and managing a psychiatric crisis does not necessarily lead to actual improved practice or patient outcomes. The survey was created specifically for this project and has not been validated as a reflection of provider behavior; therefore, future research should examine the impact of training on actual physician behaviors and patient outcomes for those presenting to primary care with severe, acute mental health needs. We hope that this work spurs future efforts to efficiently equip PCPs with the skills to improve their practice and potentially save lives.

Presentations

None

Declaration of Conflicting Interests

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