The role of PAs in providing mental health care

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ABSTRACT

The prevalence of psychiatric and substance use disorders in the United States is rising and of growing concern. Because such behavioral conditions are widespread, one approach is to collaborate with various medical professionals to help offset this demand. To address this issue, the frequency and types of mental health conditions encountered by physician assistants (PAs) were assessed. The National Commission on the Certification of Physician Assistants Practice Analysis was examined for the types of mental health conditions encountered across the spectrum of medical and surgical practices. The findings reveal that, in 2015, at least 62% of PAs saw and evaluated mental health conditions and behavioral disorders at least weekly in their settings. These patient diagnoses were seen with variability based on the specialty of the PA. The highest percentage of cases reported by PAs were in psychiatry, followed by general internal medicine, emergency medicine, family medicine, and hospital medicine. With the profession projected to grow, recruiting, retaining, and integrating more PAs into mental health care is a suggested strategy for addressing national provider shortages.

Keywords: primary care, medical workforce, practice analysis, psychiatry, physician associate, substance abuse

Mental health disorders are costly and contribute to increased risk of patient disability and premature mortality.[1,2] The number of adults with mental illness has been growing since the turn of the century; estimates show that more than 46 million Americans were suffering from mental health disorders in 2017.[3] The expenditures related to mental health treatment reached $201 billion in 2013, surpassing all other medical conditions, including cancer and heart disease.[2] Despite the high spending on mental health treatment in the United States, an increasing number of adults (an estimated 13.5 million in 2017) perceive their need for mental health care as being unmet; of these, 44.6% report being unable to afford the cost of care.[3]

Exacerbating the US mental health care gap are shortages of providers who care for patients with psychologic illness. There is an increasing concern that the number of behavioral healthcare professionals such as psychiatrists will further decrease as many are reaching retirement age.[4,5] A persistent primary care physician shortage also significantly contributes to mental health access gaps, because there are more mental health visits to primary care physicians than psychiatrists.[6,7] The United States faces an urgent need to address mental illness by improving access to high-quality and affordable care provided by qualified professionals.[1]

One practical strategy to help address the growing demand for mental health services and alleviate the psychiatrist and primary care physician shortages is to increase the involvement of physician assistants (PAs).[8] The use of PAs has been proposed as a potential solution to physician shortages, particularly in the primary care setting.[9,10] PAs are distributed across the United States and practice in a variety of clinical roles.[11,12] As of 2019, the United States had 139,688 certified PAs, with 25% working in primary care and 1.6% in psychiatry.[12] Central to the PA profession is that the generalist model of education lets PAs change specialties; research shows that about half switch to a different role during their career.[13] This ability of PAs to quickly adapt to vicissitudes in the labor market, coupled with projected growth of the profession, could make PAs significant contributors in alleviating the growing demand for mental health services and declining numbers of mental health professionals.

Preliminary research on PAs' role in mental health care provision shows promising results. McCutchen and colleagues conducted a qualitative study exploring the effect of bringing a PA into a comprehensive outpatient psychiatric team; results indicated that this strategy led to increased access to both primary and psychiatric care as well as an improvement to the overall quality of care.[14] Keller and

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colleagues found that PAs and NPs in combination were involved in 7% of depression visits in ambulatory care settings.[15] However, except for these studies, there is little research investigating the role of PAs in mental health care provision and the frequency and type of mental health conditions seen across the spectrum of clinical practice.[16]

PA roles in treating medical conditions for patients with mental health diagnoses and in treating the psychiatric condition itself are important, and not mutually exclusive. However, each offers a different approach by which the PA workforce can improve outcomes for patients with mental health conditions across medical specialties.

The aim of this study was to assess what is occurring in PA roles as they expand their utility in US medicine. The rising epidemiology of opioid addiction, suicide, drug overdose, and depression make this a contemporary issue to explore. A baseline measure of PAs confronting these conditions was needed to set the stage for more advanced undertakings. The dataset from the National Commission on Certification of Physician Assistants' (NCCPA) national practice analysis was used to assess the frequency and types of mental health conditions that PAs in different medical and surgical specialties encounter in their practice.

METHODS

The project involved a secondary analysis of the NCCPA 2015 PA practice data. Details about the specific methodology can be found in Barnhill and colleagues.[17] NCCPA developed the survey instrument through an iterative process, relying on clinical PA and psychometrician subject matter experts to maximize content validity. Ethical approval was obtained from an independent institutional review board (Sterling Institutional Review Board #7083). A link to the survey was sent to 93,365 PAs with a valid email address; 15,771 PAs completed the 90-minute survey for a 16.9% response rate.

The focus of this study was to use a subset of NCCPA practice analysis data to describe the frequency of behavioral health conditions that PAs encounter in their practice, as well as the criticality of specific psychiatric skills (for example, tasks related to substance abuse, conducting a risk assessment for suicidal ideation, homicidal ideation, self-harm, violence, and education on modifiable risk factors). The frequency scale was: 5 = daily, 4 = weekly, 3 = monthly, 2 = yearly, 1 = less than yearly, and 0 = never. PAs responded to questions about the criticality of specific psychiatric knowledge and skills using the following scale developed by NCCPA:

4 = Critical: "The patient will die if I do not diagnose or manage this disease or disorder correctly."

3 = High: "The patient will experience long-lasting health consequences if I do not diagnose or manage this disease or disorder correctly."

2 = Moderate: "The patient will experience short-term health consequences if I do not diagnose or manage this disease or disorder correctly."

1 = Low: "The patient will experience minimal to no consequences if I do not diagnose or manage this disease or disorder correctly."

0 = Not applicable: "I cannot assess the importance in terms of patient care or outcomes if I do not diagnose or manage this disease or disorder correctly."

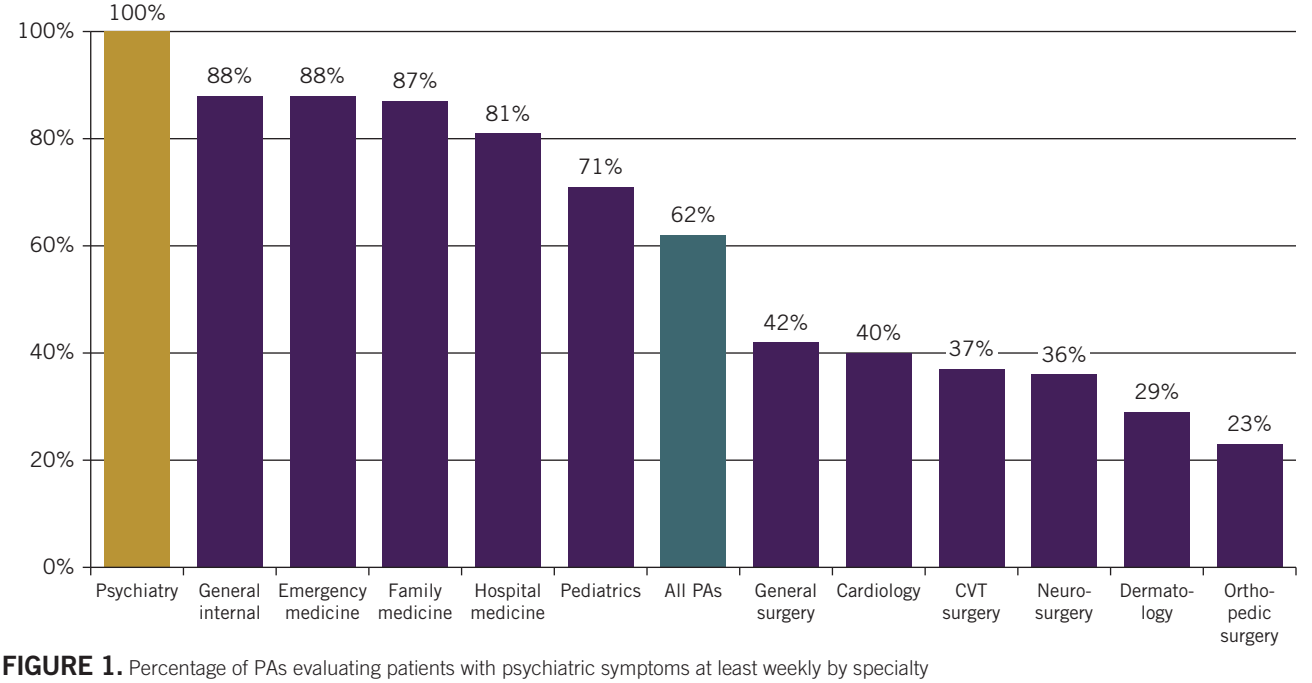

FIGURE 1. Percentage of PAs evaluating patients with psychiatric symptoms at least weekly by specialty

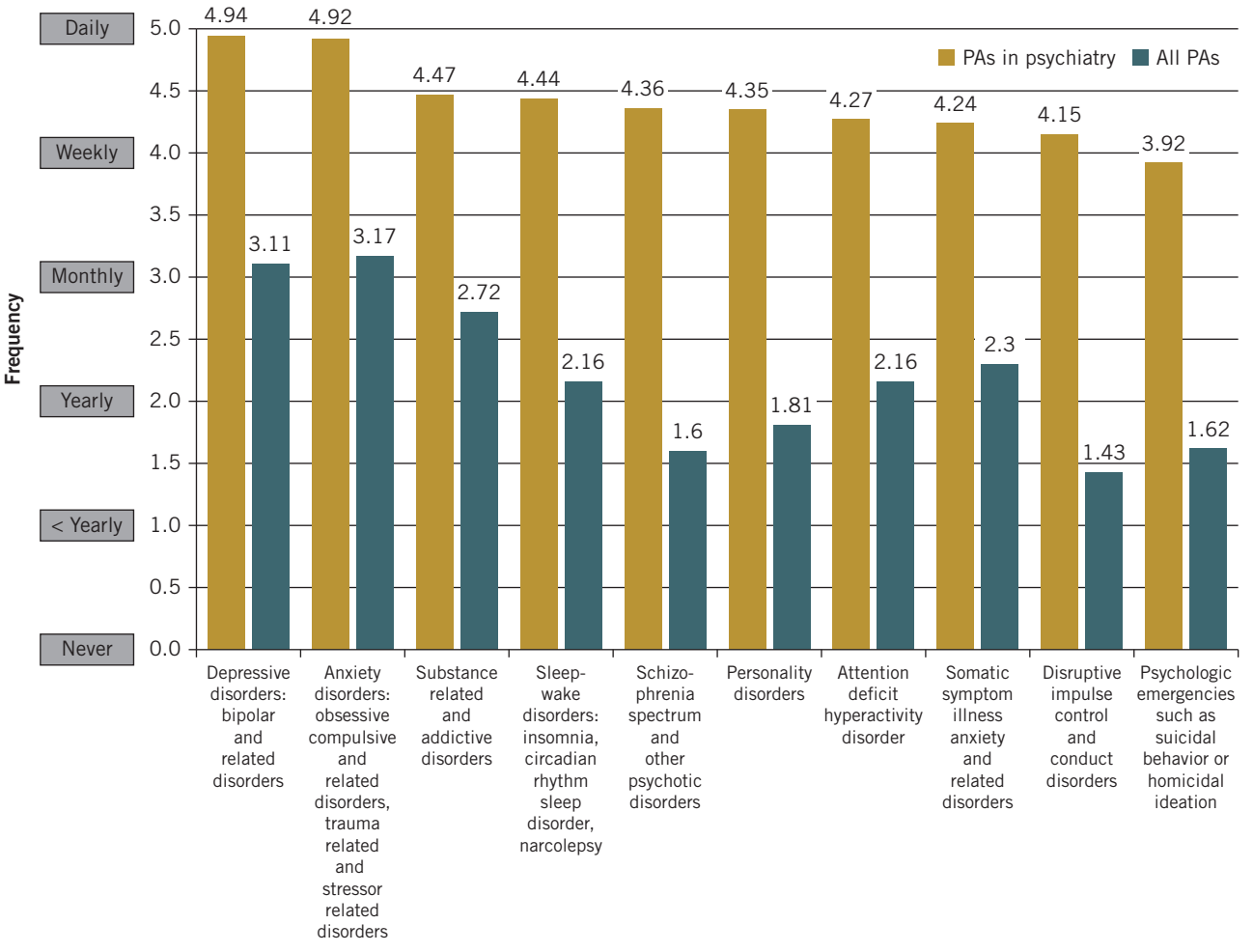

FIGURE 2. Top 10 diseases and disorders seen by PAs in psychiatry compared with all specialties

Descriptive statistics including median and mean for continuous variables and frequency and percentage for categorical variables were calculated. Demographic characteristics of the respondents mirrored those found in the NCCPA PA Practice Profile, and because the sample was representative of the population of certified PAs, weighting was not conducted.[17,18]

RESULTS

The median age of responding PAs was 38 years, and 68% were women. One-fifth (22%) of all PAs identified their medical role as primary care. The remaining 78% reported practicing in a wide variety of specialties, of which 2% were in psychiatry.

Figure 1 shows the percentage of PAs who evaluated patients with psychiatric symptoms at least weekly by the top 12 medical and surgical specialties. Overall, 62% of PAs reported evaluating patients with psychiatric symptoms on at least a weekly basis. The highest percentage reporting at least weekly were PAs in psychiatry (100%), followed by those in general internal medicine (88%), emergency medicine (88%), family medicine (87%), and hospital medicine (81%).

Figure 2 illustrates the top 10 diseases and disorders seen by PAs in psychiatry compared with those encountered by PAs in all specialties. PAs in psychiatry most frequently reported seeing depressive disorders, bipolar and related disorders (mean response of 4.94 or daily), anxiety disorders, obsessive-compulsive and related disorders, trauma-related and stressor-related disorders (mean response of 4.92 or daily) and substance-related and addictive disorders (mean response of 4.47 or at least weekly). The same three categories of disorders were the top three for all PAs; however, with a lower mean frequency (3.11 or monthly, 3.17 or monthly, and 2.72 or at least yearly, respectively).

In **Figure 3**, the data were partitioned to examine the 10 most frequently seen psychiatric disorders and to compare these findings between PAs in psychiatry and those in emergency medicine, family medicine, general internal medicine, hospital medicine, and pediatrics. Although PAs in psychiatry saw depressive disorder (including bipolar

and related disorders) on a daily basis (mean response 4.94), PAs in the other specialties saw these diseases or disorders weekly (four specialties with a mean near 4, with the exception of pediatrics at 2.82 or monthly). Results were similar for anxiety disorders, obsessive-compulsive and related disorders, trauma-related, and stress-related disorders. PAs in psychiatry encountered all 10 psychiatric diseases listed with the highest frequency compared with PAs in other specialties; PAs in pediatrics had the lowest frequency of encounter with eight of the 10 psychiatric diseases. PAs in pediatrics encountered attention deficit hyperactivity disorder and somatic symptom illness anxiety and related disorders more than PAs in any other specialty except psychiatry.

Figure 4 focuses on mean frequency ratings of substance-related and addictive disorders seen by all PAs as well as in 12 different medical and surgical specialties. PAs in emergency medicine were similar to those in psychiatry (mean rating of 4.13 or weekly versus 4.47 or weekly, respectively), followed by PAs working in hospital medicine (3.89), general internal medicine (3.32), and family medicine (3.10).

The respondents also indicated how often they conduct a risk assessment for suicide ideation, homicidal ideation, and violence or harm to self or others. The frequency for conducting this vital task was almost half (45%) for all PAs, with PAs in psychiatry at 98% followed by emergency medicine (83%), family medicine (68%), general internal medicine (65%), hospital medicine (58%), and pediatrics (56%).

PA ratings of criticality and frequency of particular skills associated with psychiatric practice were compared between psychiatry PAs and all PAs who had been in practice for more than 6 years (**Table 1**). PAs in psychiatry rated the criticality and frequency of all the skills associated with a mental health practice (except conducting education on modifiable risk factors) higher than PAs in other specialties. PAs in psychiatry also rated *conducting education on modifiable risk factors* lower on criticality compared with all PAs (2.43 versus 2.73). All PAs assigned the highest ratings of criticality to risk assessment for suicidal or

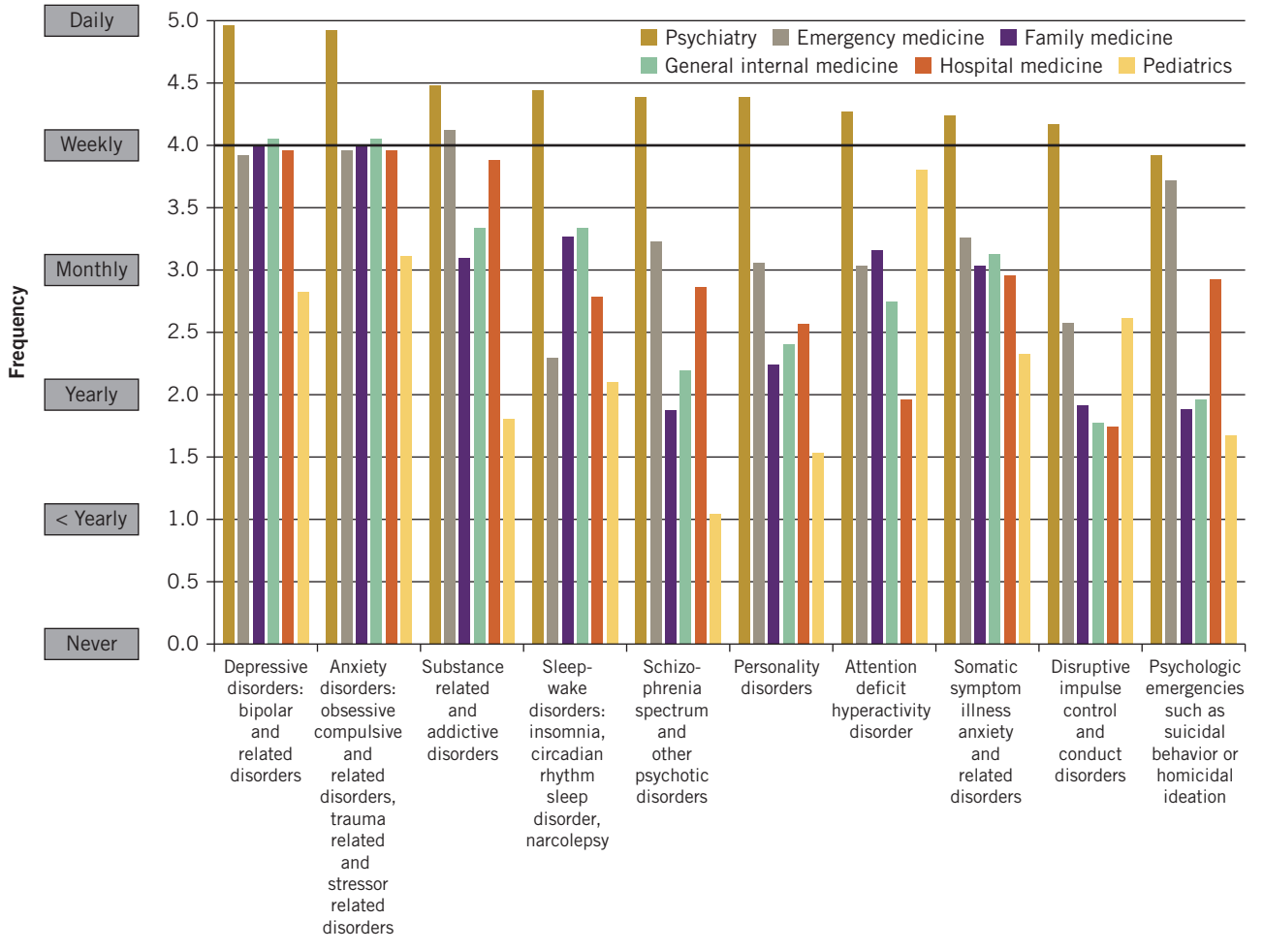

FIGURE 3. Top 10 psychiatric diseases and disorders seen by PAs in psychiatry and those in primary care related specialties

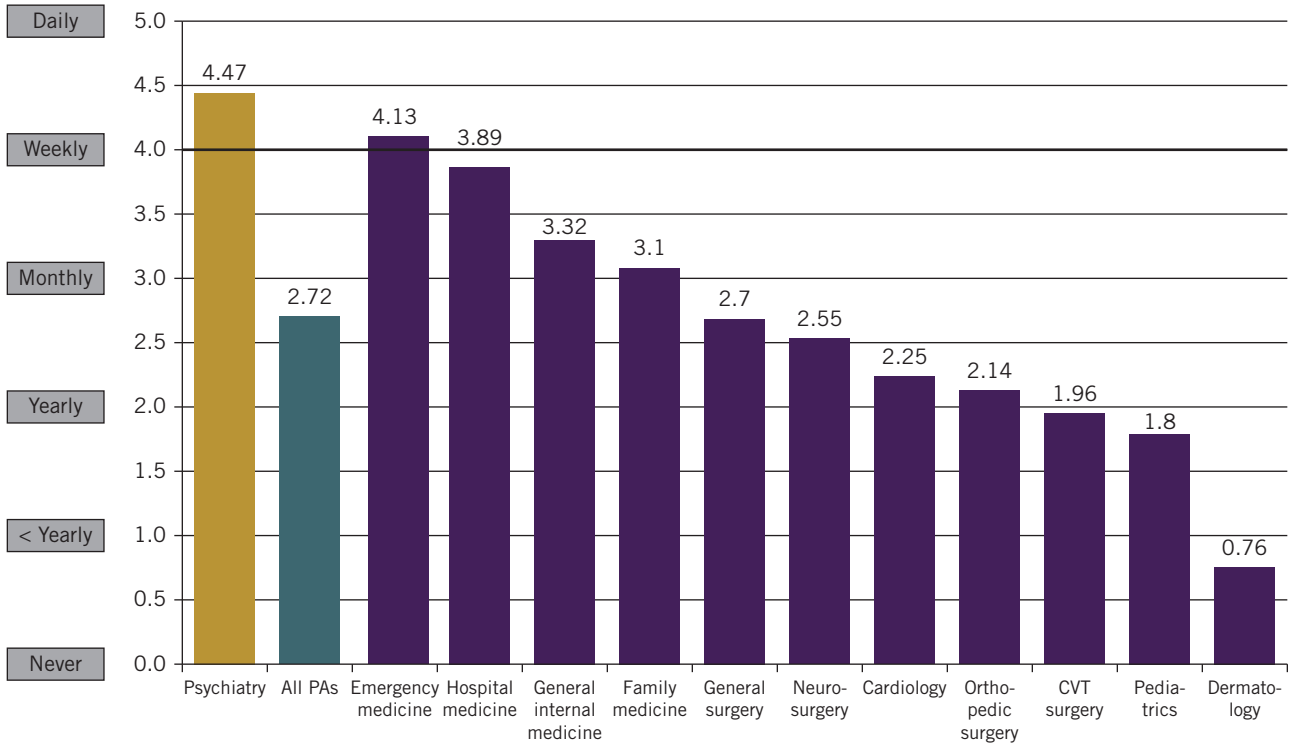

FIGURE 4. Frequency ratings for substance-related and addictive disorders by specialty

homicidal ideation and violence or harm to self or others (3.85 for those in psychiatry and 3.22 for those in other specialties).

DISCUSSION

The frequency of PA encounters with mental health conditions across the spectrum of medical and surgical specialties in their practice was explored using unique data from NCCPA's practice analysis. The data provide insight into how PAs evaluated the criticality and frequency of specific psychiatric skills. The effect of these findings is that almost all clinically active PAs reported encountering behavioral conditions and mental health disorders regardless of medical and surgical specialty. More than 62% of PAs evaluate patients with psychiatric symptoms at least weekly, but this varies depending on the practice focus of the PA. Not surprisingly, PAs in mental health practices evaluate patients with psychiatric symptoms most often; however, PAs in general internal medicine, emergency medicine, family medicine, and hospital medicine do so almost as frequently. The most commonly seen mental health disorders for all PAs were depressive disorders, bipolar and related disorders, anxiety disorders, obsessive-compulsive and related disorders, trauma-related, and stressor-related disorders, and substance-related and addictive disorders. Research on primary care physicians shows that they screen 74% of *new patients* for depression, 39% for bipolar disorder, 62% for anxiety disorders, and 69% for substance use disorder. In these same practices with *established patients*, they diagnose depression, bipolar disorders, and anxiety disorders with some regularity.[19]

Many PAs are called upon to care for patients with mental illness. From this study, it appears they have the knowledge and skills to address substance abuse, prescribe controlled medication, identify and manage medication misuse, and identify addictive drugs.[20,21] These skills and knowledge are critically needed in an era of medical professional shortages. This is in addition to being able to prescribe buprenorphine for opioid addiction treatment, given the ongoing opioid crisis in the United States.[22–24] Our results show that PAs in psychiatry, emergency medicine, hospital medicine, general internal medicine, and family medicine are on the front lines seeing patients for substance-related and addictive disorders most often.

Research indicates that there were 19.9 million US adults age 18 years and older who needed treatment for substance abuse in 2016, but only a small proportion (2.1 million) received treatment.[25] One of the primary reasons for not receiving treatment was cost.[25] Other researchers have indicated that the use of PAs may reduce the costs of mental health services, although they did not directly investigate this proposition.[26] Mechanisms by which expenditures could be reduced when using PAs for mental health services include lowering costs of care and enabling more effective

TABLE 1. Comparing PAs in psychiatry with all PAs in terms of criticality and frequency ratings for specific psychiatric skills

Frequency: 0 = never, 1 = less than yearly, 2 = yearly, 3 = monthly, 4 = weekly, and 5 = daily
Criticality: 4 = Critical: The patient will die if I do not diagnose or manage this disease or disorder correctly; 3 = High: The patient will experience long-lasting health consequences if I do not diagnose or manage this disease or disorder correctly; 2 = Moderate: The patient will experience short-term health consequences if I do not diagnose or manage this disease or disorder correctly; 1 = Low: The patient will experience minimal to no consequences if I do not diagnose or manage this disease or disorder correctly; 0 = Not applicable: I cannot assess the importance in terms of patient care or outcomes if I do not diagnose or manage this disease or disorder correctly.

	PAs in psychiatry		All PAs with more than 6 years of clinical experience		Differences in ratings	
Skill	**Mean criticality**	**Mean frequency**	**Mean criticality**	**Mean frequency**	**Difference in mean criticality**	**Difference in mean frequency**
Evaluating patients with psychiatric symptoms	High (3.49)	Weekly to daily (4.97)	Moderate to high (2.55)	Monthly to weekly (3.53)	0.94	1.44
Conducting a risk assessment for suicidal ideation, homicidal ideation, and violence or harm to self or others	High to critical (3.85)	Weekly to daily (4.9)	High (3.22)	Yearly to monthly (2.94)	0.63	1.96
Using counseling techniques (motivational coping skills, marriage and family counseling, substance abuse)	Moderate to high (2.83)	Weekly to daily (4.55)	Moderate (2.36)	Monthly (3.23)	0.47	1.32
Prescribing controlled substances appropriately (that is, identifying drug-seeking behavior or drug misuse--opioid versus nonopioid drugs)	High (3.19)	Weekly (4.40)	Moderate to high (2.97)	Monthly to weekly (3.69)	0.22	0.71
Identifying and managing medication misuse	High (3.07)	Weekly (4.35)	Moderate to high (2.78)	Monthly (3.37)	0.29	0.98
Conducting education on modifiable risk factors with an emphasis on primary and secondary prevention (such as smoking cessation, diet, exercise)	Moderate (2.43)	Monthly to weekly (3.82)	Moderate to high (2.73)	Monthly to weekly (3.56)	-0.3	0.26

use of the psychiatrist.[27] Seeing a PA compared with a physician is associated with lower expenditures for complex patients.[27] However, whether costs would decrease if PAs played a larger role in the provision of mental health services (as opposed to other healthcare providers) is not known. There also is the possibility that costs could increase: Patients with mental health conditions would have better access to care, resulting in greater use of healthcare services. More research is needed to elucidate the relationship between PA use in mental health care provision and costs.

In the Roehrig study, results showed that of the $201 billion spent in 2013 on mental illness disorders, about 60% was for civilian noninstitutionalized population, and 40% was for institutionalized patients (long-term patients in psychiatric hospitals).[2] Given that most PAs do not practice in psychiatry and that many patients with mental illness suffer with comorbid medical conditions, PA roles in treating medical conditions for patients with mental health diagnoses, as well as in treating the psychiatric condition itself are important, and not mutually exclusive. Because PA roles span medical and psychiatric conditions, patients could be better served with more PAs involved in their care.

Suicide rates have increased by 33% from 1999 to 2017, becoming the 10th leading cause of death in the United States.[28] Research reveals that 83% of patients who die by suicide will have seen a medical provider sometime during the 12 months before their death; of these, half do not have a mental health diagnosis.[29] Although systematic reviews

indicate that no single suicide prevention method stands out as the most effective, an opportunity exists in primary care and emergency medical settings to intervene by screening patients and getting to know them and their mental health history.[30] The results presented here indicate that clinically active PAs in areas typically associated with primary care (family medicine, general internal medicine, and pediatrics) and emergency medicine conduct a risk assessment on at least a weekly basis for suicidal or homicidal ideation, as well as violence or harm to self or others. Of all the specific psychiatric skills, PAs assigned the highest ratings of criticality to risk assessment for suicidal or homicidal ideation and violence or harm to self or others.

Despite a call for more research on the role of PAs in mental health, research in this area is limited.[14,26] Our study is the first to document that PAs see a wide range of mental health diagnoses and disorders across a broad spectrum of practices. Given that PAs frequently evaluate patients for a variety of mental illness conditions and rate the criticality of specific psychiatric skills as moderate to high, it may be valuable to investigate means to increase PA use in addressing the United States' growing mental health needs.

LIMITATIONS

Study limitations include the self-report nature of the survey study design. Although the instrument was developed through a rigorous iterative process, it relied on memory for accurate responses. Another limitation is the 16.9% response rate. The online survey took an average of 90 minutes to complete, and respondent fatigue may have led some PAs to drop out before completion. However, when we compared demographic characteristics, specialty areas, and years of experience of the respondents in the current study with NCCPA's database for all certified PAs, we did not find differences. This suggests that the low response rate did not lead to a nonresponse bias and thus a nonrepresentative sample. Another limitation is that the survey did not assess whether PAs felt sufficiently prepared to see patients with different psychiatric conditions at entry to practice or if they needed a few years of experience to feel more comfortable.

CONCLUSIONS

The increasing demand for mental health services, along with the psychiatrist and primary care physician shortages, strains the capacity of the US healthcare system. A substantial number of patients with behavioral health problems are seen daily by PAs in the course of their clinical role as analyzed through a national practice analysis. The frequency and type of mental health conditions encountered varied widely but at significant levels not previously reported. Our findings show that 62% of PAs see and evaluate mental health conditions and behavioral disorders at least weekly with variability based on PA specialty. PAs may be an overlooked strategy in the US effort to meet the growing demand for psychiatric services. **JAAPA**

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