PAs in Critical Care Medicine

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National Commission on Certification of Physician Assistants

Background

- Over 6 million patients require treatment in intensive care units for life-threatening conditions every year in the US
- Since the start of the COVID-19 pandemic, critical care medicine providers have held an immense responsibility in providing care to critically ill patients
- Staff from across the hospital have been re-deployed to work in critical care units
- Health crises such as the COVID-19 pandemic, particularly during surging infection rates, have exponentially increased demand for acute, emergent, and intensive care
- More research is needed in understanding the critical care medicine PA workforce demographic characteristics and practice patterns

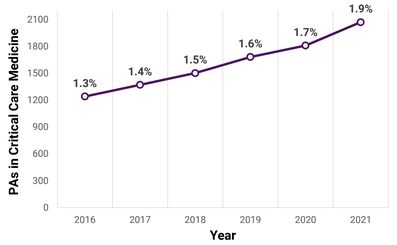
Objective & Method

- The study's objective was to:
  - describe the growth of PAs in psychiatry from 2016 to 2021 and
  - explore key demographic and practice characteristics of PAs working in critical care medicine and compare to PAs practicing in all other specialties
- Data were derived from National Commission on Certification of Physician Assistants (NCCPA) *PA Professional Profile*
- Analysis of the data consisted of descriptive statistics and bivariate analyses (Chi-square tests and Mann-Whitney U tests) conducted using SPSS

Email questions to Kasey Puckett at kaseyk@nccpa.net

Results

Growth of Certified PAs in Critical Care Medicine

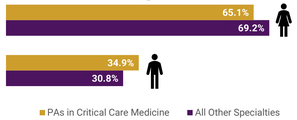


The proportion of PAs working in critical care medicine has grown from 1.3% in 2016, to 1.9% by the end of 2021. Of note, the absolute number of PAs working in psychiatry has increased by 66.9% between 2016 and 2021.

Characteristics of PAs practicing in Critical Care Medicine vs. PAs practicing in all other disciplines

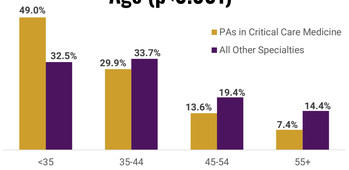
	PAs practicing in Critical Care Medicine	PAs practicing in all other disciplines	P-value
Race:			
White	84.4%	84.8%	0.116
Asian	7.1%	6.0%	
African American	3.5%	3.5%	
Multiple Races	2.1%	2.0%	
Other	2.8%	3.6%	
Ethnicity:			
Non-Hispanic/Latino	93.5%	93.4%	0.847
Hispanic/Latino	6.5%	6.6%	
Hours worked per week:			
Median	40.0	40.0	**<0.001**
Mean	**42.3**	40.0	
Patients seen per week:			
Median	30.0	64.0	**<0.001**
Mean	42.2	**71.5**	
On-call hours per week:			
None (I do not take calls)	**84.8%**	64.1%	**0.000**
5 or less hours/week	4.9%	18.0%	
6-10 hours/week	2.6%	6.1%	
More than 10 hours/week	7.8%	11.7%	
Armed forces served:			
Yes	6.9%	**9.3%**	**<0.001**
No	93.1%	90.7%	
Speak language other than English:			
Yes	21.5%	22.7%	0.198
No	78.5%	77.3%	
Intention to leave clinical position:			
Yes	8.5%	7.8%	0.237
No	91.5%	92.2%	
Job Satisfaction:			
Satisfied	86.5%	85.2%	0.131
Dissatisfied	13.5%	14.8%	
Burnout:			
No symptoms of burnout	62.1%	69.5%	**<0.001**
At least one symptom of burnout	**37.9%**	30.5%	

Gender (p<0.001)



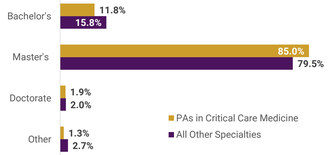
The PA critical care medicine workforce is composed of 65.1% females.

Age (p<0.001)



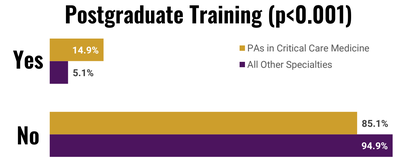
PAs in critical care medicine are younger than PAs practicing in all other disciplines (mean age 37 vs. 41; p<0.001).

Highest Degree Obtained (p<0.001)



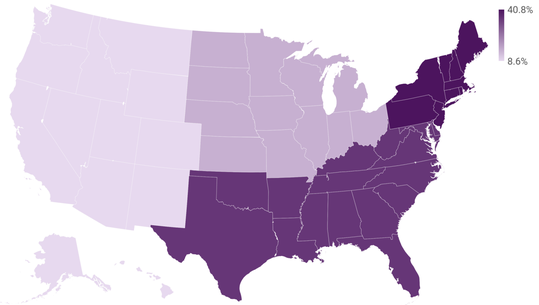
PAs in critical medicine are more likely to have a master's degree vs. PAs in all other specialties (85.0% vs. 79.5%; p<0.001).

Postgraduate Training (p<0.001)



14.9% of PAs in critical care medicine completed postgraduate training.

Geographic Distribution of Certified PAs in Critical Care Medicine



The US regions and their percentage of PAs practicing in critical care medicine are as follows: Northeast (40.8%), South (35.3%), Midwest (15.3%), and West (8.6%).

Services provided in principal clinical position of PAs practicing in Critical Care Medicine vs. PAs practicing in all other disciplines

	PAs practicing in Critical Care Medicine who indicated service provided for "Most Patients"	PAs practicing in all other disciplines who indicated service provided for "Most Patients"	P-value
Diagnosis, treatment, and management of acute illness	**95.1%**	76.5%	**<0.001**
Diagnosis, treatment, and management of chronic illness	**64.3%**	58.1%	**<0.001**
Conduct physical examinations and obtain medical histories	**92.9%**	89.6%	**<0.001**
Order, perform, and interpret lab tests, X-rays, EKGs, and other diagnostic studies	**97.7%**	80.6%	**<0.001**
Provide preventive care, including screening and immunizations	19.8%	**39.8%**	**<0.001**
Perform procedures	**54.7%**	33.8%	**<0.001**
Counsel and educate patients and families	73.8%	**81.8%**	**<0.001**
Provide care coordination	**65.1%**	51.6%	**<0.001**
Make referrals	40.5%	**41.8%**	**<0.001**

Key Findings and Conclusion

- The number of PAs in critical care medicine has grown by 67% between 2016 and 2021
- PAs in critical care medicine were significantly more likely to work in multiple clinical positions compared to PAs in all other specialties (19.8% vs. 11.2%; p<0.001)
- Despite PAs in critical care medicine vs. all other disciplines being more likely to report one or more burnout symptoms (37.9% vs. 30.5%; p<0.001), they were equally satisfied with their positions (86.5% vs. 85.2%; p=0.131)
- PAs in critical care medicine provide indispensable services, including diagnosing, treating, and managing patients with acute conditions, conducting physical examinations, and obtaining medical histories, ordering, performing, and interpreting lab tests and diagnostic studies, performing procedures, and providing care conditions
- PAs in all other disciplines were significantly more likely to participate in telemedicine compared to those in critical care medicine (34.0% vs. 9.7%; p<0.001)
- Knowing the characteristics of the PA critical care medicine workforce will contribute to quantifying their contribution to the overall critical care medicine workforce

References

- Halpern NA, Goldman DA, Tan KS, et al. Trends in critical care beds and use among population groups and Medicare and Medicaid beneficiaries in the United States: 2000-2010. Crit Care Med. 2016;44:1490-1499.
- National Commission on Certification of Physician Assistants, Inc. (2021). 2020 Statistical Profile of Certified Physician Assistants: An Annual Report of the National Commission on Certification of Physician Assistants. Retrieved from http://www.nccpa.net/resources/nccpa-research/