



## **PA Students' Experience with Stress & Interpersonal Toxicity**

A report from the 2022 AAPA Student Survey

2/21/2023 • 2022 AAPA Student Survey

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## Methodology

From January 27 to February 28, 2022, data were collected in a survey sent to all PA students in the United States (U.S.) for which AAPA had a valid email address who had not opted out of AAPA research surveys. A total of 2,462 PA students completed this survey. The overall survey margin of error is +/- 0.91% at a 95% confidence level. Response rates and margins of error vary by section and breakout.

## Measures

On the tables that follow:

“N” refers to the number of respondents and is generally the first column in the data tables.

“Median” earnings are those at the 50th percentile, i.e., half of responses are equal to or above the median and half are equal to or below the median.

“Percent (%)” refers to the proportion of the respondents who selected a response option.

Totals do not always add up to 100% due to rounding.

## Acknowledgement

This research is exempt from IRB approval in accordance with US Department of Health and Human Service's Policy for Protection of Human Research Subjects listed at 45 C.F.R. §46.104(d)(2)(ii). The author has no conflicts to report.

## About PAs

PAs (physician associates/physician assistants) are licensed clinicians who practice medicine in every specialty and setting. Trusted, rigorously educated and trained healthcare professionals, PAs are dedicated to expanding access to care and transforming health and wellness through patient-centered, team-based medical practice. A PA's specific duties depend on the settings in which they work, their level of experience, and state law. There are approximately 159,000 PAs in the United States, who engage in more than 514 million patient interactions each year. To learn more about PAs, go to [aapa.org](http://aapa.org).

## Executive Summary

Stress, whether occurring during an educational program or in a workplace, can have a significant impact on one's sense of well-being and belonging. As the PA profession aims to increase the number of diverse matriculating students within its programs<sup>1</sup>, it is important to evaluate how students within these educational settings feel about their perceived levels of stress, interpersonal toxicity, and sense of belonging. While many healthcare systems have been quick to develop diversity, equity, and inclusion initiatives, a need for systemic change still exists.<sup>2</sup> Previous research on PA students has also illustrated the impact isolation and burnout can have on underrepresented minorities in medicine (URM), sexual and gender minority students (SGM), students who grew up in a family of low socioeconomic status (SES), and/or students identifying as a person with a disability (PWD).<sup>1</sup> In this brief report, we outline some of those factors by examining the responses PA students shared in the 2022 AAPA Student Survey.

### Student Well-Being

In February 2020, before the start of the COVID-19 pandemic, AAPA asked PA students about their well-being.<sup>3</sup> The results of that survey are remarkably similar to the responses in 2022. Most PA students are happy at their school both in 2020 (66%) and in 2022 (63%), contend their life is close to ideal (69% in both years), and are satisfied with their life (85% in both years). A difference arises in PA students' emotional exhaustion. Whereas in 2020, prior to the pandemic, 60% agreed that they were emotionally exhausted, this rose to 75% in 2022. Completing the education required to be a PA can be a demanding process, and there are many factors influencing the amount of stress an aspiring student encounters during their training. While some of these factors are fixed (i.e., COVID-19), others can be addressed by PA programs.



### Student Accomplishment and Sense of Belonging

Students were asked to share their thoughts regarding various groups and individuals who helped them feel like they belonged in PA school. Almost all (94%) of the students surveyed agreed, or strongly agreed, they encountered other students who they identified with during their time at PA school. Similarly, 78% agreed, or strongly agreed, they have encountered faculty or staff they can identify with, and almost eight in 10 students have found one of more communities or groups in their program where they feel they belong (78%). A majority

<sup>1</sup> Cuenca JP, Ganser, K, Luck M, Smith NE, McCall TC. Diversity in the Physician Assistant Pipeline: Experiences and Barriers in Admissions and PA School. *J Physician Assist Educ.* 2022;33(3):171-278. doi: 10.1097/JPA.0000000000000442

<sup>2</sup> Sapre K. Microaggressions Are Not So Micro. *Clinical Advisor.* 2022. Retrieved from: <https://www.clinicaladvisor.com/home/topics/practice-management-information-center/microaggressions-not-micro/>

<sup>3</sup> Sierra T, McCall TC, Brown H, Smith NE. The Role of Interpersonal Toxicity on Healthcare Students' Well-Being. *J Physician Assist Educ.* 2022;33(3):198-204. doi:10.1097/JPA.0000000000000440



(60%) also agreed/strongly agreed there was someone in their program they consider to be a mentor (Table 2). Fostering a sense of belonging during PA education is essential to ensuring students feel supported while matriculating through their program.<sup>4</sup>

**Figure 1.** Percent of PA students who agree/strongly agree others in their program help them feel they belong



### Sources and Levels of PA Program Stress

When evaluating the stress levels of PA students, our data indicate 63% experienced high or very high school stress while 30% reported high or very high life stress (Table 4). These stress ratings were further explored within Table 5. Overall, 90% of PA students reported their stress level was at least a six out of 10. (Table 5). The mean stress rating was seven out of 10, and the median ranking was eight out of 10.

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**90% of PA students indicated their stress level was at least 6 out of 10**

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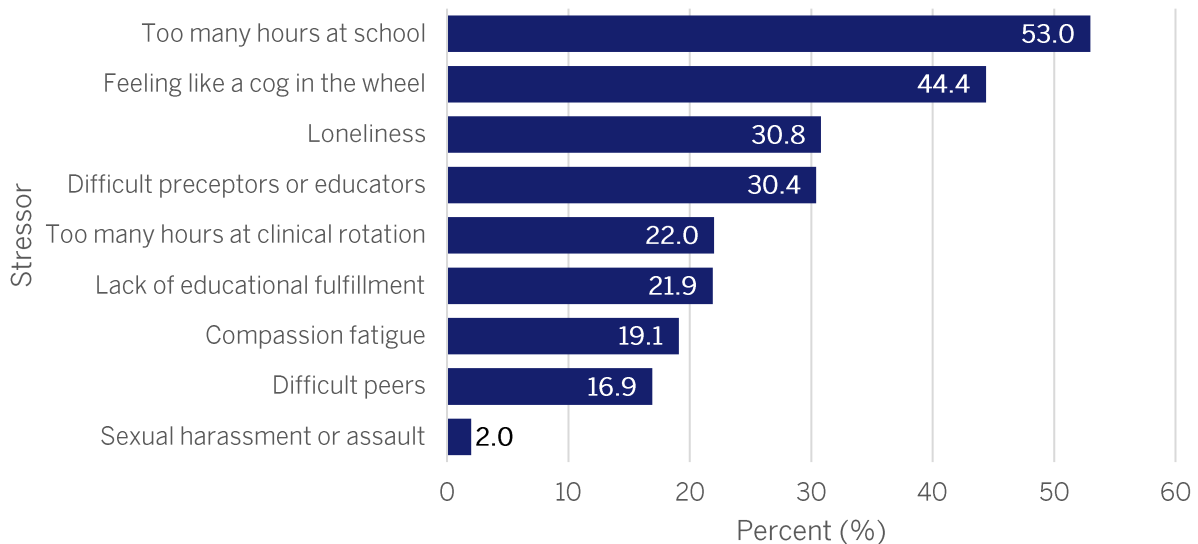
To understand the sources of PA student stress, we included a variety of stressors within the survey and asked respondents to share to what extent those events negatively impacted them during their program. The factor impacting students the most was spending too many hours at school, which was rated as having a very, or extremely, negative impact by more than half of respondents (53%)(Table 6).

Despite many PA students expressing they found people in their programs to identify with, 31% were very, or extremely, impacted by loneliness. Additionally, 44% of students felt like a cog in the wheel, 19% were affected by compassion fatigue, and 22% a lack of educational fulfillment (22%). Almost one-third (30%) were very or extremely negatively impacted by difficult preceptors or educators). Conversely, difficult peers were only very or extremely negatively impacting 17% of PA students (Table 6).

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<sup>4</sup> Cuenca JP, Ganser, K, Luck M, Smith NE, McCall TC. Diversity in the Physician Assistant Pipeline: Experiences and Barriers in Admissions and PA School. J Physician Assist Educ. 2022;33(3):171-278. doi: 10.1097/JPA.0000000000000442

**Figure 2. Percent of PA Students Who Were Very/Extremely Impacted by Negative Events, by Stressor**



We also asked students to identify their feelings of cynicism about school, enthusiasm for school, and whether they had a low sense of personal accomplishment. More than half (54%) expressed they often or always had enthusiasm for their program. Comparatively, about 21% of students shared they often or always felt a low sense of personal accomplishment and one third (33%) always or often felt feelings of cynicism about their school experience (Table 3).

### PA Students and Interpersonal Toxicity

A large proportion of PA students are witnessing and/or personally experiencing interpersonal toxicity within their PA program. Two in five (39%) had witnessed interpersonal toxicity, 27% had personally experienced interpersonal toxicity, at least once during 2021 (Table 7). This is up from 2019 when one in five PA students witnessed interpersonal toxicity and one in 10 personal experience it.<sup>5</sup> Those who witnessed interpersonal toxicity most often reported seeing these acts annually (14%) or monthly (14%). Only 2.5% of PA students witnessed interpersonal toxicity daily. Similarly, few PA students experienced interpersonal toxicity daily during 2021 (1%). However, 13% of PA students reported experiencing interpersonal toxicity annually and 9.1% monthly (Table 8). This is similar to the 2019 findings with 10.9% experiencing interpersonal toxicity yearly, 6.5% monthly, 3.3 weekly, and 1.1% daily.<sup>5</sup>

Drawing on prior research, the amount PA students experience interpersonal toxicity puts them at higher risk for burnout.<sup>5</sup> Experiencing interpersonal toxicity yearly results in 1.95

<sup>5</sup> Sierra T, McCall TC, Brown H, Smith NE. The Role of Interpersonal Toxicity on Healthcare Students' Well-Being. *J Physician Assist Educ.* 2022;33(3):198-204. doi:10.1097/JPA.0000000000000440

higher odds of being emotionally exhausted, 2.09 higher odds of feeling cynical about PA school, 1.83 higher odds of having a low sense of personal accomplishment, and 1.99 higher odds of compassion fatigue. More work is needed to determine if targeted interventions to reduce PA students' experiences with interpersonal toxicity reduces their feelings of distress.

**Figure 3. Frequency of Witnessing or Experiencing Interpersonal Toxicity**



### Leaving a PA Program

While 83% of PA students have not considered leaving their program, 17% have considered leaving at some point in their student career including 4.1% who were currently considering at the time of the survey (Table 9).

Stress was the most common reason PAs endorsed as a reason they had considered leaving their PA program. Isolation (66%) and a perceived lack of support (60%) were also endorsed by over half of PA students who had considered leaving their PA program. Other reasons commonly endorsed included feeling unwelcome (48%) and having a sense of poor alignment with a PA program (44%, Table 10).

**80%**  
of PA students  
who had  
previously left a  
program did so  
due to stress

### Conclusions

PA education can be a source of stress and burnout. While many students who leave a program indicate the amount of stress they felt during their education was a factor, mitigating stressors within PA education is something that can be done at both the personal and program level. For PA students, making sure you find a PA program where you feel that

you belong is an important first step. During interactions with fellow students and interviews with program faculty, make sure you are asking about the institution's plans to create a welcoming, supportive environment for all students. At the program level, interventions aimed at reducing interpersonal toxicity and burnout should be continued. Based on these 2022 findings, interpersonal toxicity, stress, and burnout still play a role in a PA student's decision to continue their education. Interpersonal toxicity, regardless of its target, should not be tolerated within PA education. Moving forward, continuing to stress the importance of diversity, equity, and inclusion initiatives should be a critical aim for programs and prospective PA students.



## Data Tables

**Table 1. Percent of PA Students who Agree/Strongly Agree They Are Satisfied with School and Life**

Measure	N	Percent (%)
I am emotionally exhausted	2,189	75.3
I am happy at school	1,844	63.4
I am happy outside of school	2,486	85.5
In most ways, my life is close to ideal	1,996	68.6
I am satisfied with life	2,467	84.8
<b>Total</b>	<b>2,908</b>	

Source: 2022 AAPA Student Survey.

Question: Please rate your agreement with each of the following

Note: Respondents were asked to rate their feelings on a 1 to 5 scale, with 1 representing "I strongly disagree" and 5 representing "I strongly agree". Breakdowns in this table reflect PA students who reported experiencing these feelings with the choices "I agree" or "I strongly agree".

**Table 2. Groups Helping PA Students Feel They Belong in Their Programs**

Type of Support	N	Percent (%)
I have encountered other students who I can identify with in my PA school	2,656	94.0
I have encountered faculty or staff who I can identify with in my PA school	2,213	78.3
I have one or more communities or groups where I feel I belong in my program	2,209	78.2
I have someone I consider a mentor within my program	1,706	60.4
<b>Total</b>	<b>2,825</b>	

Source: 2022 AAPA Student Survey.

Question: Please indicate your level of agreement with each of the following. These statements are regarding your current experience in PA school.

Note: Respondents were asked to rate their feelings on a 1 to 5 scale, with 1 representing "Strongly agree" and 5 representing "Strongly Disagree". Breakdowns in this table reflect PA students who selected "Strongly Agree" or "Agree".

**Table 3. Percent of PA Students Who Often Feel Cynicism, Enthusiasm, and a Low Sense of Accomplishment in Their Program**

Measure	N	Percent (%)
Feelings of cynicism about school	140	33.4
Enthusiasm for school	226	53.9
Low sense of personal accomplishment	86	20.5
<b>Total</b>	<b>419</b>	

Source: 2022 AAPA Student Survey.

Question: Please indicate the extent to which you experience the following for your school.

Note: Respondents were asked to rate their feelings on a 1 to 5 scale, with 1 representing "Never" and 5 representing "Always". Breakdowns in this table reflect PA students who reported experiencing these feelings "Often" or "Always".

**Table 4. Percent of PA Students Who Reported Having High Stress**

Measure	N	Percent (%)
Life Stress	862	29.5
School Stress	1,834	62.7

Source: 2022 AAPA Student Survey.

Question: How would you rate your level of....

Note: Respondents were asked to rate their stress on a 1 to 5 scale, with 1 representing "Very Low" and 5 representing "Very High". Breakdowns in this table reflect PA students who reported experiencing "High" (4) or "Very High" (5) stress.

**Table 5. PA Students Stress Level Rating During Their PA Program**

Stress Level	N	Percent (%)
1	11	0.4
2	9	0.3
3	35	1.2
4	75	2.6
5	172	5.9
6	359	12.4
7	685	23.7
8	825	28.5
9	424	14.6
10	301	10.4
<b>Total</b>	<b>2,896</b>	<b>100.0</b>

Source: 2022 AAPA Student Survey.

Question: On a scale of 1 to 10, where 10 is the maximum workload expected in your PA program, what is your workload right now?

**Table 6. Percent of PA Students Who Were Very/Extremely Impacted by Negative Events During PA Programs**

Factor	N	Percent (%)
Too many hours at school	893	53.0
Feeling like a cog in the wheel	748	44.4
Loneliness	519	30.8
Difficult preceptors or educators	512	30.4
Too many hours at clinical rotation	371	22.0
Lack of educational fulfillment	368	21.9
Compassion fatigue	321	19.1
Difficult peers	284	16.9
Sexual harassment or assault	33	2.0
<b>Total</b>	<b>1,684</b>	

Source: 2022 AAPA Student Survey.

Question: To what extent do the following events negatively impact you at school?

Note: Respondents were asked to rate their stress on a 1 to 5 scale, with 1 representing "Not at all" and 5 representing "Extremely". Breakdowns in this table reflect PA students who reported the option negatively impacted them "Extremely" or "Very".

**Table 7. Percent of PA Students Who Have Witnessed or Experienced Interpersonal Toxicity**

Measure	N	Percent (%)
I experienced interpersonal toxicity	777	26.7
I witnessed interpersonal toxicity	1,139	39.1

Source: 2022 AAPA Student Survey.

Question: How often do you personally witness or directly experience Interpersonal toxicity or abuse at your

school or clinical rotation sites?

Note: Respondents were able to select from 5 categorical options, ranging from "Never" to "Daily". Breakdowns in this table reflect PA students who did not select "Never".

**Table 8. Frequency PA Students Who Have Witnessed and Experienced Interpersonal Toxicity**

Measure	Witnessed Toxicity		Experienced Toxicity	
	N	Percent (%)	N	Percent (%)
Daily	72	2.5	30	1.0
Weekly	228	7.8	114	3.9
Monthly	420	14.4	264	9.1
Annually	419	14.4	369	12.7
Never	1,774	60.9	2,135	73.3
<b>Total</b>	<b>2,913</b>	<b>100.0</b>	<b>2,912</b>	<b>100.0</b>

Source: 2022 AAPA Student Survey. Data based on year 2021.

Question: How often to you personally witness or directly experience Interpersonal toxicity or abuse at your school or clinical rotation sites?

**Table 9. Percent of PA Students Who Considered Leaving Their Program**

Measure	N	Percent (%)
No	2,445	82.7
Yes, in the past but not right now	391	13.2
Yes, but I do intend to pursue the PA profession in the future	112	3.8
Yes, and I do not intend to pursue the PA profession in the future	10	0.3
<b>Total</b>	<b>2,958</b>	<b>100.0</b>

Source: 2022 AAPA Student Survey.

Question: Have you ever considered leaving your current PA school?

**Table 10. Reasons PA Students Consider Leaving Their PA Program**

Reason	N	Percent (%)
Stress	419	79.5
Isolation	347	65.8
Lack of support	314	59.6
Feeling unwelcome	255	48.4
Poor alignment	234	44.4
Financial	184	34.9
Healthcare	154	29.2
Medical	103	19.5
Left a PA program in the past	35	6.6
<b>Total</b>	<b>527</b>	

Source: 2022 AAPA Student Survey.

What are the reasons you have considered leaving your current PA school, now or in the past?

Note: Respondents were allowed to select all categories that applied. Totals do not equal 100%.