

Increased Anxiety, Depression, and Perceived Stress Among Physicians-In-Training during the COVID-19 Pandemic

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Purpose

- Physicians in Training (PIT) - high risk for developing depression, stress, and burnout
- COVID-19 pandemic strained healthcare workers
- Some data point to increased stress, burnout, anxiety, depression, and PTSD in PIT post pandemic
- Data lacking in PIT population in US
- Few studies used validated mood screening instruments
- Aim: To describe changes in mental health of PIT before and during the COVID-19 pandemic.
- Hypothesis: While GME is inherently stressful by nature, there will be an increase in anxiety, depression, and perceived stress in PIT during the pandemic compared to before.**

Methods

- Study Design:**
 - Anonymous, online survey assessing mental health of PIT from June-Aug 2020 (GAD-7, PHQ-2, & PSS)
 - PIT = medical student, resident, or medical fellow
 - Survey disseminated by hospital communications (LSU OBGYN residency program director listerv) & social media platforms
- Outcome:** Questions answered at a single timepoint asking "in the past 2 weeks..." vs "Before the COVID-19 outbreak in your area, how often...over a 2-week period of time?"
- Statistical Analysis:** Descriptive statistics & dependent Wilcoxon rank-sum tests compared GAD-7, PHQ-2, and PSS scores within PIT before and during the COVID-19 pandemic.

Results

- 78 surveys completed by PIT (173 started the survey)
 - 53% medical students, 32% residents, 3% fellows
- Scores for general anxiety, depression, and perceived stress each increased during the pandemic compared to before (all p<0.001)
 - Anxiety:** 23% rose to higher classification category
 - Depression:** 8% positive for likely depressive disorder before the pandemic vs 23% during the pandemic
 - Stress:** 1% reported high stress before the pandemic vs 10% during
- Of PIT who did not previously have positive screening for a mood disorder before the pandemic, **36%, 18%, and 53%** met criteria for anxiety, depression and perceived stress, respectively, during the pandemic.

Table 1. Anxiety, Depression, and Perceived Stress in PIT Before and During the COVID-19 Pandemic

	Before pandemic	During pandemic	P value
Anxiety- score, mean±std	6.2 ± 4.8	7.9 ± 5.3	<0.001
Anxiety- category: n			
Minimal (score 0-4)	33/78 (42%)	25/78 (32%)	<0.001
Mild (score 5-9)	31/78 (40%)	26/78 (33%)	
Moderate (score 10-14)	8/78 (10%)	15/78 (19%)	
Severe (score 15-21)	6/78 (8%)	12/78 (15%)	
Depression- score, mean±std	0.9 ± 1.3	1.6 ± 1.9	<0.001
Depression- category:			
Unlikely depressive disorder (score 0-2)	72/78 (92%)	60/78 (77%)	0.179
Likely depressive disorder (score 3-6)	6/78 (8%)	18/78 (23%)	
Perceived stress- score, mean±std	14.2 ± 5.6	18.4 ± 6.8	<0.001
Perceived stress- category:			
Low stress (0-13)	38/78 (49%)	19/78 (24%)	<0.001
Moderate stress (14-26)	39/78 (50%)	51/78 (66%)	
High stress (27-40)	1/78 (1%)	8/78 (10%)	

Results Continued

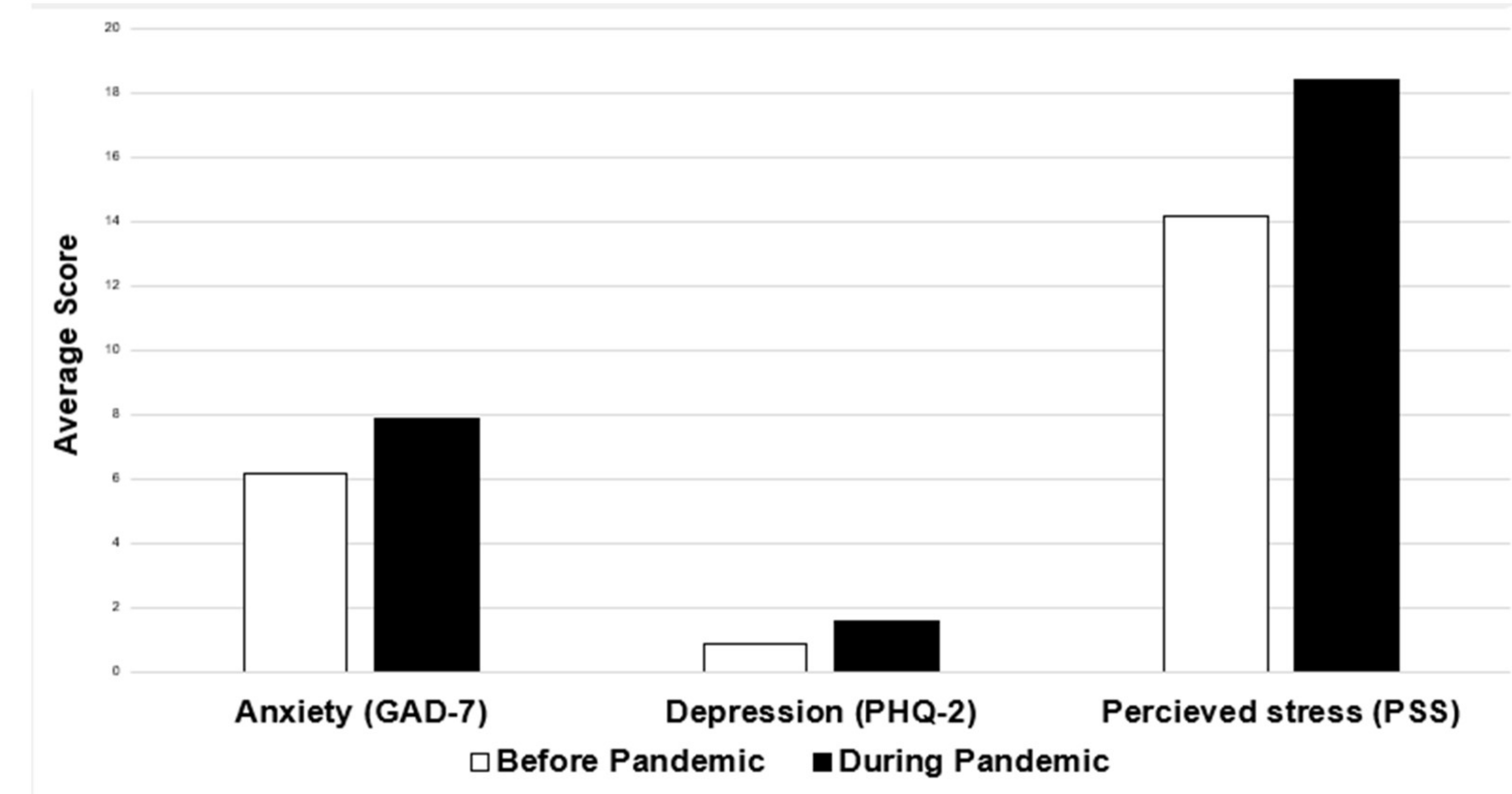


Figure 1. Mean GAD-7, PHQ-2, and PSS scores among PIT before and during the COVID-19 pandemic.

Conclusions

- This study highlights the substantial strain on the mental health of PIT during the pandemic assessed longitudinally with validated mood disorder screening tools
- There was worsened mood screening across all metrics assessed – both those with and without prior diagnosis of a mood disorder

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