


## ORIGINAL RESEARCH

41. **Health Anxiety Among Clinical Medical Students: A Cross-Sectional Study at Uludağ University Faculty of Medicine**Levent Özdemir<sup>1</sup>, Ezgi Mühürçü<sup>1</sup>, Oğuzhan Çalışkan<sup>1</sup><sup>1</sup> Bursa Uludağ University, Faculty of Medicine, Türkiye

 <https://www.youtube.com/watch?v=4rJ3DHWekRs&list=PLHqNq3xJClbafO0Y5bvBcgMmXpgzJxd44&index=6&t=11662s>

**Background:** Health anxiety, characterized by persistent worry about having or developing serious illness due to misinterpretation of bodily sensations, represents a significant concern in medical education. Medical Student Syndrome (MSS), a unique manifestation of health anxiety specific to medical trainees, involves the tendency to misinterpret benign bodily sensations as symptoms of diseases being studied. Turkish medical students demonstrate higher rates of anxiety and depression compared to non-medical peers due to academic pressures, emotional exposure to illness, and prolonged training demands. The heightened awareness of disease pathology, combined with educational stressors, may increase susceptibility to health anxiety among medical students. This study aimed to evaluate and compare health anxiety levels among clinical-year medical students across different academic stages.

**Methods:** A cross-sectional study was conducted among 288 clinical medical students (4th, 5th, and 6th years) at Uludağ University Faculty of Medicine. The sample exceeded the minimum required size of 272 participants calculated using Cochran's finite population correction formula. Data collection utilized a two-part online survey following informed voluntary consent. Part one assessed sociodemographic variables and health anxiety-related factors, while part two employed the validated Turkish version of the Short Health Anxiety Inventory (SHAI), an 18-item self-report instrument evaluating current mental states and emotional responses to illness scenarios. Statistical analysis was performed using SPSS version 23, employing descriptive statistics, Chi-square tests, Student's t-tests, and multiple linear regression analysis to identify significant predictors of health anxiety. Ethics approval was obtained from Uludağ University Faculty of Medicine Clinical Research Ethics Committee.

**Results:** The study population comprised 136 (47.2%) female and 152 (52.8%) male students, with proportional distribution across academic years: 92 (31.9%) fourth-year, 95 (33.0%) fifth-year, and 101 (35.1%) sixth-year students. The overall mean SHAI score was  $19.2 \pm 9.3$ . Female students exhibited significantly higher health anxiety levels compared to males ( $21.3 \pm 9.0$  vs.  $16.8 \pm 9.0$ ;  $t=4.20$ ,  $p<0.05$ ). Among participants, 64.2% reported experiencing distress and anxiety due to self-perceived illness attributed to medical education knowledge, with significantly higher SHAI scores ( $21.1 \pm 8.7$  vs.  $15.7 \pm 9.2$ ;  $t=4.80$ ,  $p<0.05$ ). Notably, 54.2% sought medical consultation based on self-diagnosis from medical knowledge, showing significantly elevated anxiety scores ( $22.6 \pm 8.1$  vs.  $15.2 \pm 8.9$ ;  $t=7.30$ ,  $p<0.05$ ). Among those

seeking consultation, 53.8% received confirmation of their suspected diagnosis. Multiple linear regression analysis revealed female gender as a significant predictor of health anxiety ( $B=4.15$ , 95% CI [2.34, 5.96]). No significant differences were observed in health anxiety scores based on residence location or academic year level ( $p>0.05$ ).

**Conclusions:** This study demonstrates significant health anxiety prevalence among clinical medical students, with female gender and medical education-induced health concerns serving as primary risk factors. The finding that over half of students sought medical consultation based on self-diagnosis highlights the practical impact of health anxiety on healthcare utilization behaviors. The absence of significant differences across academic years suggests that health anxiety remains consistently elevated throughout clinical training phases. These findings emphasize the need for targeted mental health support and educational interventions addressing health anxiety in medical curricula. Early identification and management of health anxiety could improve student wellbeing and reduce inappropriate healthcare-seeking behaviors.

**Table 1.** Participant Characteristics and Differences in Mean Scores by Sociodemographic and Behavioral Variables.

Variable	n (%)	Mean $\pm$ SD
<b>Gender</b>		
( $t = 4.20$ , $p<0.05$ )		
Female	136 (47.2%)	$21.3 \pm 9.0$
Male	152 (52.8%)	$16.8 \pm 9.0$
<b>Residence Location</b>		
( $F = 1.98$ , $p>0.05$ )		
With Family	89 (30.9%)	$20.4 \pm 8.7$
Shared Apartment	131 (45.5%)	$18.0 \pm 9.2$
Dormitory	68 (23.6%)	$19.9 \pm 9.9$
<b>Worried about having illness learned during medical training?</b>		
( $t = 4.80$ , $p<0.05$ )		
Yes	185 (64.2%)	$21.1 \pm 8.7$
No	103 (35.8%)	$15.7 \pm 9.2$
<b>Visited doctor due to self-diagnosis from medical knowledge?</b>		
( $t = 7.30$ , $p<0.05$ )		
Yes	156 (54.2%)	$22.6 \pm 8.1$
No	132 (45.8%)	$15.2 \pm 8.9$
<b>Was suspected diagnosis confirmed?</b>		
( $t = -0.11$ , $p>0.05$ )		
Yes	84 (53.8%)	$22.5 \pm 6.9$
No	72 (46.2%)	$22.6 \pm 9.5$
<b>Grade Level</b>		
( $F = 1.43$ , $p>0.05$ )		
4th Grade	92 (31.9%)	$19.0 \pm 10.5$
5th Grade	95 (33.0%)	$20.4 \pm 9.2$
6th Grade	101 (35.1%)	$18.1 \pm 7.8$

**Legend:** Student T Test. One-way ANOVA

This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

ISSN 2076-6327

This journal is published by [Pitt Open Library Publishing](https://pittopenlibrarypublishing.com/)

**Pitt** Open Library Publishing