

---

# Prevalence of burnout and its perceived contributing factors among Level III physical therapy students

Francis Michael N. Casala, Zeris Juriel E. Gantala, Pauliea Shiri M. Lucena, Alicia Celine L. Paterno, Miguel Santos, Adrian S. Tibayan, and Cherrie Ann C. Conanan, PTRP

## Abstract

**Introduction** Physical therapy students, who train on how to handle patients, also experience burnout due to social, academic, and personal factors. The study aimed to determine the prevalence of burnout among third year physical therapy students of UERM and the factors that contribute to it.

**Methods** A descriptive cross-sectional research design was used to determine the prevalence of burnout and its perceived contributing factors. Eligible students answered the Maslach Burnout Inventory General Survey for Students (MBI-GS(S)) and a self-developed questionnaire regarding academic, social, and personal factors of burnout. Microsoft Excel was used to compute the standard (z) values and prevalence rate.

**Results** None of the 26 respondents fit the criteria to be classified as “burnout”, however 42.3% were “overextended”, 34.6% were “ineffective” and 23.1% were “engaged”. The top factors reported by the participants were too much workload to handle, being left behind academically compared to peers, and pushing oneself too hard for the academic, social, and personal categories, respectively

**Conclusion** None of the limited number of respondents met the criteria for “burnout”. The most perceived academic reason contributing to their burnout is the volume of workload. The feeling of being left behind academically compared to their peers was shown to be the most perceived social factor. The tendency to push themselves too hard to accomplish their task perfectly/completely was seen as the most perceived personal factor in this study.

**Key words:** Burnout, physical therapy, students, college students, contributors, factors

---

### Correspondence:

Miguel Santos, College of Allied Rehabilitation Sciences, University of the East Ramon Magsaysay Memorial Medical Center, Inc., 64 Aurora Boulevard, Barangay Doña Imelda, Quezon City, PH 1113; Email: santosm5653@uerm.edu.ph; Telephone: +63967 319 2698

College of Allied Rehabilitation Sciences, University of the East Ramon Magsaysay Memorial Medical Center, Inc., Quezon City, PH

As the prevalence of burnout rises globally amidst the pandemic, it is noteworthy to look at how many of our students experience burnout. Physical therapy students, who train on how to handle patients, may also experience burnout due to social, academic, and personal factors. These factors were noted to be recurring in the literature on students in the medical field due to high physical and academic demands.<sup>1-6</sup> The study looks at how prevalent burnout is among

third year physical therapy students of UERM and determines what factors contribute to it. Third-year physical therapy students were chosen as the participants of the study as they are taking major subjects which are more difficult than their other subjects. The results could then provide additional information regarding burnout among students and could therefore be used as reference to create an intervention on how to best handle burnout among students. Knowing the presence of academic, personal, and social contributing factors and determining what students feel as the most contributing factor would help future researchers and the staff to address the issue.

### Methods

A descriptive cross-sectional research design was used to determine the relationship between the variables burnout and its perceived contributing factors. The population of interest were third year physical therapy students in UERMMMCI enrolled in SY of 2021-2022 with a 25-unit load; those who had a part-time job were excluded. Google Forms was utilized as a means of data collection. The researchers started collecting data by posting recruitment posters on Canvas Homeroom, the school's learning management system, with the link to the consent form and questions regarding the demographics provided. Participants answered the Maslach Burnout Inventory General Survey for Students (MBI-GS(S)) and the self-developed questionnaire regarding factors of burnout.<sup>7</sup>

The MBI-GS(S), designed to assess burnout in college and university students, consists of 16 items and takes 10 to 15 minutes to answer. It consists of the subscales emotional exhaustion, cynicism, and professional efficacy.<sup>7</sup> Emotional exhaustion is a feeling of being overextended and exhausted by one's studies.<sup>7</sup> Cynicism is defined as indifference or a distant attitude towards one's studies while professional efficacy is satisfaction with past and present accomplishments, and it explicitly assesses the student's expectations of continued effectiveness in school.<sup>7</sup> A respondent is classified as having a "burnout profile" by attaining high scores in emotional exhaustion and cynicism that are beyond the computed critical boundaries and a low score in professional efficacy.<sup>7</sup> The reliability of the three MBI scales in the various versions exceeds the recommended levels for research instruments and the validity of the MBI in its multiple versions has

been demonstrated by numerous studies and meta-analytic reviews that confirm hypotheses about the relationships between job attributes and experienced burnout.<sup>7</sup> The self-developed questionnaire is designed to measure the perceived factors of burnout among students with high levels of burnout. It is a ranking type of questionnaire of possible factors collated from the literature. Items are under three subcategories: academic, social, and personal. Factors in each subcategory are ranked from 1 (most perceived reason) to 7 (less perceived reason).

Microsoft Excel was used to compute the standard (z) values and prevalence rate. The MBI-GS(S) scores were analyzed using the scoring key provided by the MBI Manual to determine if the respondent's score in each sub-category indicates the presence of burnout. The Perceived Contributing Factors questionnaire was analyzed by obtaining the weighted average scores for each factor and ranking them from highest to lowest.

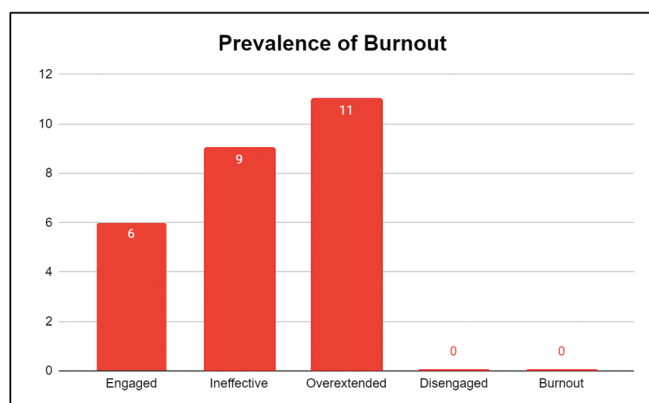
The study was approved by the Ethics Review Committee of the Medical Center RIHS (ERC Code 0933/C/2021/014; approved June 28, 2021).

### Results

Twenty-six out of 85 third year physical therapy students studying at the University of the East Ramon Magsaysay Memorial Medical Center participated in the study. Their mean age was 20.4 years; 61.5% were female. None of the 26 respondents fit the criteria to be classified as "burnout", however 42.3% were "overextended", 34.6% were "ineffective" and 23.1% were "engaged" as shown in Figure 1. Table 1 shows that many of the respondents had high averages in emotional exhaustion and professional efficacy, and low levels of cynicism, resulting in 4 out of 10 respondents being "overextended" (Figure 1). Nine respondents scored low in professional efficacy, putting them in the "ineffective" group (Figure 1). The top factors reported by the participants were too much workload to handle, being left behind academically compared to peers, and pushing oneself too hard for the academic, social, and personal categories, respectively, as shown in Table 2.

### Discussion

Maslach defined burnout as having scores in emotional exhaustion and cynicism that are beyond the computed critical boundaries.<sup>8</sup> Since none of the participants



**Figure 1.** Prevalence of burnout among 26 respondents.

**Table 1.** Summary of results of subscales of the Maslach Burnout Inventory General Survey for Students (MBI-GS(S))

Subscales	Mean score $\pm$ SE	Frequency (%) exceeding critical boundary
Emotional exhaustion	4.72 $\pm$ 1.48	11 (42.3)
Cynicism	3.65 $\pm$ 1.73	0
Professional efficacy	3.91 $\pm$ 1.48	15 (57.7)

**Table 2.** Top three academic, social and personal factors among 26 respondents.

Academic
Too much workload to handle Rushed with meeting deadlines Inability to keep up with fast-paced lectures
Social
Left behind academically compared to peers Exhausted studying alone Stress of peers performing better
Personal
Pushing oneself too hard Inability to get enough sleep Withdrawn in the online setup

had an average score above the critical boundary in the cynicism subscale, the participants could not be classified as having a “burnout” profile. However, almost half (11/26) of the participants were found to be overextended meaning that they experienced work

overload in their studies. According to Maslach, an “overextended” profile was defined as individuals who attained high scores on the emotional exhaustion subscale of the MBI-GSS beyond the computed critical boundary.<sup>8</sup>

In contrast to a study in 2022 on pharmacists using the MBI–General Services and MBI–Health Services in assessing the presence of burnout, it was seen that the average scores on the emotional exhaustion and cynicism subscales were lower, indicating less degree of burnout, although the study’s population was exclusively pharmacists. There is still limited literature when it comes to assessing burnout using the Maslach Burnout Inventory exclusively on physical therapy students.<sup>1</sup>

Overall, the most perceived academic, social, and personal factors were all consistent with current available studies. The “feeling of too much workload” was ranked as one of their most perceived factors as to why physical therapy students likely experience burnout. This is consistent with the study of Yang that course load is the biggest factor of stress in students.<sup>9</sup> In this study, the most perceived personal factor that most likely contributed to burnout is that students push themselves too hard to be able to do their task perfectly/completely (Table 2). Literature indicates that perfection, being competitive, and being self-driven were also noted to trigger burnout.<sup>2-4,10</sup> However, this study showed that the least perceived personal factor was having too many responsibilities outside school which was in contrast with studies stating that personal-life or family-related events greatly affect the possibility of developing burnout.<sup>5,6</sup> None of the limited number of respondent physical therapy students had burnout defined as having high levels of emotional exhaustion, high levels of cynicism and low levels of professional efficacy. The most perceived academic reason contributing to their burnout was the volume of workload. The feeling of being left behind academically compared to their peers was shown to be the most perceived social factor. Finally, the tendency to push themselves too hard to accomplish their task perfectly/completely was seen as the most perceived personal factor in this study.

### Acknowledgements

The authors extend their deepest gratitude to Ms. Jeshanah M. Villones, PTRP; Ms. Anna Margarita

A. Luge, CPO; Ms. Jaira Mari A. Paat, PTRP; and Ms. Ma. Louise Katrina M. Gonzales, PTRP for the continuous support and assistance in their study. They also would like to acknowledge the valuable feedback and assistance from Ms. Michelle Bautista, the authors' psychometrician, in creating the self-developed questionnaire. Finally, they would like to thank all the 3rd year physical therapy students who contributed to the study.

### References

1. Santos P, Silva C, Costa D, Torre C. Burnout in the pharmaceutical activity: The impact of COVID-19. *Front Psychiatry* [Internet]. 2022 Jan 20; 12: 771462. doi: 10.3389/fpsy.2021.771462
2. Costa EF de O, Santos SA, Santos ATR de A, Melo EV de, Andrade TM de. Burnout Syndrome and associated factors among medical students: A cross-sectional study. *Clinics (Sao Paulo)* [Internet]. 2012; 67(6): 573-80. doi: 10.6061/clinics/2012(06)05
3. Yu JH, Chae SJ, Chang KH. The relationship among self-efficacy, perfectionism and academic burnout in medical school students. *Korean J Med Educ* [Internet]. 2016 Mar; 28(1): 49-55. doi: 10.3946/kjme.2016.9
4. Villwock JA, Sobin LB, Koester LA, Harris TM. Impostor syndrome and burnout among American medical students: A pilot study. *Int J Med Educ* [Internet]. 2016; 7: 364-9. doi: 10.5116/ijme.5801.eac4
5. Dyrbye LN, Thomas MR, Huntington JL, et al. Personal life events and medical student burnout: A multicenter study. *Acad Med* [Internet]. 2006 Apr; 81(4): 374-84. doi: 10.1097/00001888-200604000-00010
6. Ishak W, Nikraves R, Lederer S, Perry R, Ogunyemi D, Bernstein C. Burnout in medical students: A systematic review. *Clin Teach* [Internet]. 2013 Aug; 10(4): 242-5. doi: 10.1111/tct.12014
7. Maslach C, Leiter M. Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry* [Internet], 2016 Jun; 15(2): 103-11. doi: 10.1002/wps.20311
8. Maslach C, Jackson SE, Leiter MP. *Maslach Burnout Inventory Manual*. 4th Ed. Mind Garden, Inc.; 2018.
9. Yang H-J. Factors affecting student burnout and academic achievement in multiple enrollment programs in Taiwan's technical-vocational colleges. *Int J Educ Dev* [Internet]. 2004; 24(3): 283-301. Available from: <https://doi.org/10.1016/j.ijedudev.2003.12.001>
10. Lin S-H, Huang Y-C. Life stress and academic burnout. *Act Learn High Educ* [Internet]. 2014; 15(1): 77-90. Available from: <https://doi.org/10.1177/1469787413514651>