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Research Article

Prevalence of Burnout among Physical Therapy Students in the Twin Cities of Rawalpindi and Islamabad, Pakistan

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Abstract

Burnout, a condition of physical, emotional, and mental tiredness brought on by sustained involvement in challenging work settings, is widespread among medical students. International studies were conducted on burnout among healthcare students, particularly medical, and nursing students. The results reported significantly elevated levels of burnout among them. The objective of this study was to find out the prevalence of burnout in physical therapy students. It was a cross-sectional survey conducted in the colleges/universities of the twin cities of Islamabad and Rawalpindi, Pakistan. The data was collected by using a self-structured questionnaire for demographic data along with the Copenhagen Burnout Inventory (CBI) scale, which assesses burnout in the dimensions of personal burnout, work burnout, and student-related burnout, with a cut-off score of 50 for each dimension. A total of 299 physical therapy students were enrolled in this study. The mean age of participants in this study was 21.05 ± 1.75 years. The prevalence of personal burnout was 46.2%, work-related burnout was 35.5%, and student-related burnout was 39.1%. It was concluded that burnout is common in physical therapy students, with personal burnout being the highest level of burnout.

Keywords: Burnout, Copenhagen Burnout Inventory (CBI), physical therapy students, prevalence

1. Introduction

Low back Burnout is a significant problem among healthcare students (Tlili et al. 2021), as they often grapple with prolonged physical and mental exhaustion associated with their academic work and collaboration with peers (Aghajani Liasi et al. 2021). Medical and allied health sciences students' academic lives can be viewed as psychologically taxing, with the demanding curriculum identified as the primary source of stress (Chin et al. 2016, Tlili et al. 2021). Notable instances of educational stressors include the frequency of exams, academic performance, high personal expectations, arduous educational content, problems with the study schedule, insufficient study resources, onerous professional responsibilities, and a dearth of time for leisure activities (Aghajani

Liasi et al. 2021, Shrestha et al. 2021). Moreover, studies have indicated that compared to non-medical students, medical students experience more psychological strain and mental health issues. Consequently, a lot of medical students may suffer from problems like burnout (Wing et al. 2018, Haile et al. 2019). Burnout among these students not only leads to personal suffering but also correlates with suicide ideation, contemplations of quitting medical school, dwindling empathy, diminished academic performance, and instances of professional misbehavior (Al-Jehani et al. 2020).

According to literature, doctors begin experiencing burnout in medical school that continues beyond graduation (Alkhamees et al. 2020). This burnout often results in medical errors, unsatisfactory patient outcomes, and

Table1. Students' Characteristics

Variables	Frequency (Percentage)
Gender	
Female	255(85.3%)
Male	44(14.7%)
Semester	
1 st	36(12%)
2 nd	39(13%)
3 rd	36(12%)
4 th	12(4%)
5 th	54(18.1%)
6 th	17(5.7%)
7 th	49(16.4%)
8 th	13(4.3%)
9 th	12(4%)
10 th	31(10.4%)

high doctor turnover rates. Previous investigations revealed that the prevalence of burnout among residents and medical students ranged from 17.6% to 82% (Ratnakaran, Prabhakaran, and Karunakaran 2016, Li et al. 2021). According to a study, physical therapists may be more susceptible to burnout than other healthcare professionals because their work frequently relies on their emotional engagement and demands closer contact with patients. (Brooke et al. 2020) demonstrated that burnout in physical therapists can start during physical therapy education, well before the development of a career or specialization. Physical therapy students are under intense pressure to complete their coursework, provide patient care in clinical settings, and consistently perform at their best. These expectations can take a significant psychological toll on the individual (Booth and Short 2022).

Physical therapy has now developed its graduate program into a doctoral-level degree. It has been implied that the Doctor of Physical Therapy (DPT) programs have a course load that is just as rigorous academically as medical school. Despite existing research focusing on burnout among medical or nursing students, there is a notable absence of recent studies specifically addressing burnout in DPT students.

The transition to a doctorate-level degree is likely to incorporate more elements that may elevate the likelihood of burnout among DPT students, especially with changes in degree requirements and program upgrades. To effectively understand the magnitude of the problem, the current study aims to ascertain the prevalence of burnout among physical therapy students in the twin cities of Rawalpindi/ Islamabad, Pakistan.

2. Materials & Methods

In this cross-sectional survey, conducted between May 2023 and September 2023, a total of 299 DPT female and male students from different colleges and universities of Rawalpindi and Islamabad were enrolled. By using the epitool, the sample size was determined to be 277, using a confidence level of 95% with a 5% margin of error, and an 18.2% prevalence of burnout(Muzafar et al. 2015).

The study was authorized by the ethics committee of the Margalla Institute of Health Sciences. Every participant signed a written statement of informed consent. Through a self-structured questionnaire, participant characteristics and demographic information were gathered. The Copenhagen Burnout Inventory (CBI), a valid and reliable tool, was

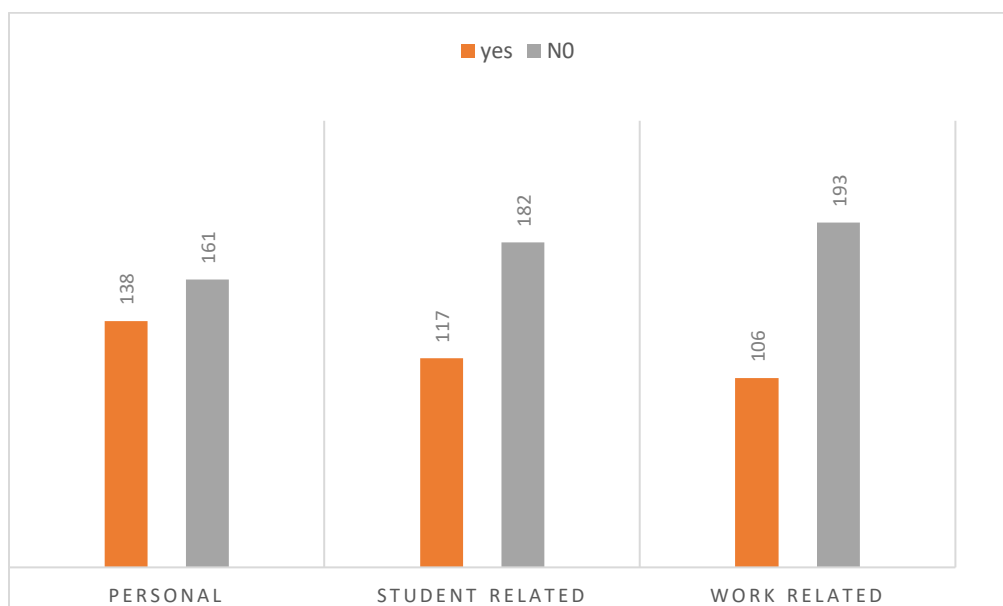


Figure 1: Frequency of burnout among DPT students

used to gauge the extent of burnout in physical therapy students (Kristensen et al. 2005). Three subscales comprise the CBI: personal burnout (six items), work burnout (seven items), and student burnout (six items). Twelve of the nineteen items have frequency responses on a five-point Likert scale ranging from "100 (always), 75 (frequently), 50 (occasionally), 25 (rarely), and 0 (never/almost never), and the remaining questions mentioned degree responses: 100 (very high degree), 75 (high degree), 50 (somewhat), 25 (low degree), and 0 (very low degree). The average score for each participant was calculated by dividing the total score for each of the three domains by the number of pertinent items. This was done to determine the mean score, which was then utilized for interpretation (Kristensen et al. 2005). The CBI cutoff score of 50 or more was to be taken as suggestive of burnout (Creedy et al. 2017, Ratnakaran, Prabhakaran, and Karunakaran 2016). Moreover, SPSS version 23 was used for all statistical analysis. Categorical variables were expressed as frequency and percentage, whereas continuous variables were described as mean and standard deviation (SD).

3. Results

Out of the 300 questionnaires distributed to physical therapy undergraduate students, 299 were filled and returned, resulting in a response rate of 99.66%. The mean age of participants in this study was 21.05 ± 1.75 ; Table 1 shows students' characteristics. The mean study hours per day were 4.76 ± 2.83 . The results of this study showed that 138(46.2%) students reported personal burnout, 106(35.5%) reported work-related burnout, and 117(39.1%) participants reported student-related burnout as shown in Figure 1. Figures 2, 3, and 4 show the frequency of personal burnout, work-related burnout, and student-related burnout each semester, respectively.

4. Discussion

This cross-sectional study aimed to determine the prevalence of burnout among physical therapy students in Rawalpindi and Islamabad. In our study, there were 255 (85.3%) female and 44 (14.7%) male physical therapy students. Notably, previous studies included more female students (Daud et al. 2021, Williams et al. 2018), while (Almalki et al. 2017) reported a higher percentage of male students (67.5%). The mean

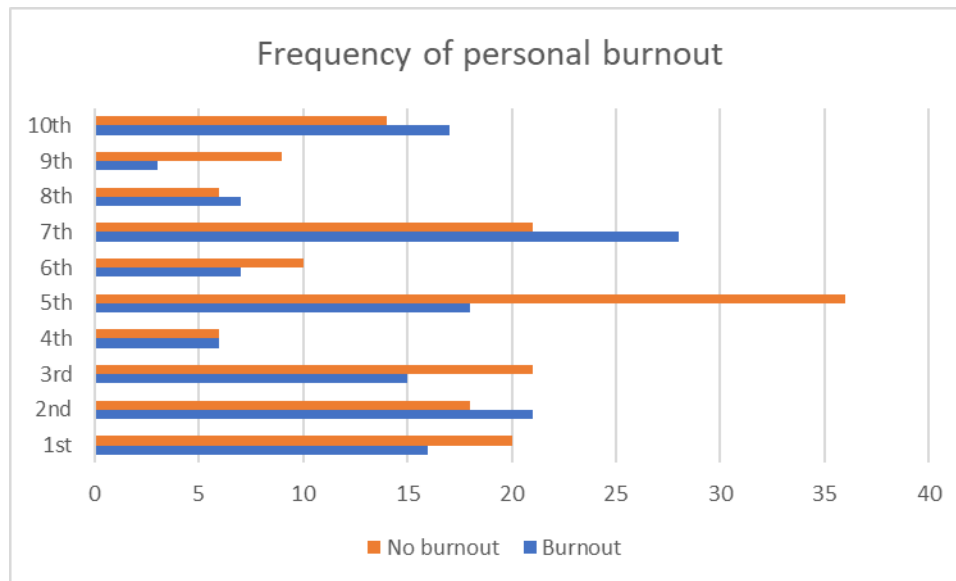


Figure 2: Frequency of personal burnout each semester.

age of participants was 21 ± 1.75 years in our study. Whereas, (Al-Dabal et al. 2010) reported a mean age of 19.7 ± 1.3 years in their study, while (Bolatov et al. 2022) found a comparable mean age of 20.3 ± 2.74 years.

In our study, the prevalence of burnout was highest for personal burnout 46.2%, followed by student-related burnout 39.1%, and lastly, work-related burnout 35.5%. Similarly, (Chin et al. 2016) reported the highest personal burnout (81.6%), but found work-related burnout to be 73.7%, and client-related burnout was 68.6%. In addition, a study by Armstrong et al exhibited 50% personal burnout, 42% work-related burnout, and 12% client-related burnout (Armstrong and Reynolds 2020). In 2021, Bogardus et al concluded that DPT students were found to have higher levels of depression, anxiety, and stress when compared to age-matched individuals. DPT students who experience greater levels of stress are likely more prone to burnout (Bogardus et al. 2021). Moreover, in terms of burnout subscales, 36.3% of nursing students reported severe emotional exhaustion, 37.7% reported high levels of depersonalization, and 28.2% reported low personal accomplishment (Lopes and Nihei 2020).

Another study stated that surgical specialty residents had the highest personal burnout (57.92 %), and medical specialty residents reported the highest patient-related burnout (27.13%) (Ratnakaran, Prabhakaran, and Karunakaran 2016). Furthermore, a study solely focused on evaluating the individual aspects of burnout discovered that, according to the CBI, 35.9% of students displayed pronounced levels of burnout (Muzafar et al. 2015). Notably, in the current study, students in the 7th semester reported more burnout. The study conducted by Booth and Short showed that DPT students reported elevated levels of emotional distress and academic burnout as the semester proceeded (Booth and Short 2022). According to (Williams et al. 2018) DPT students in the 2nd year were more exhausted and disengaged than those in 1st year.

The limitation of this study is that it was only confined to the cities of Rawalpindi and Islamabad. Moreover, the information was gathered using a self-reported questionnaire; therefore, under- or over-reporting may be a problem. Further research should be done to identify the underlying causes of the high burnout rate among DPT students so that early

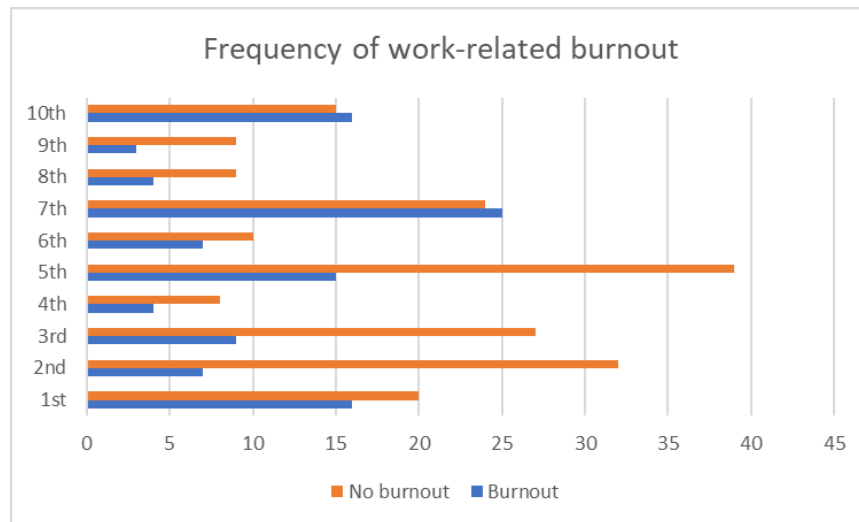


Figure 3: Frequency of work-related burnout each semester.

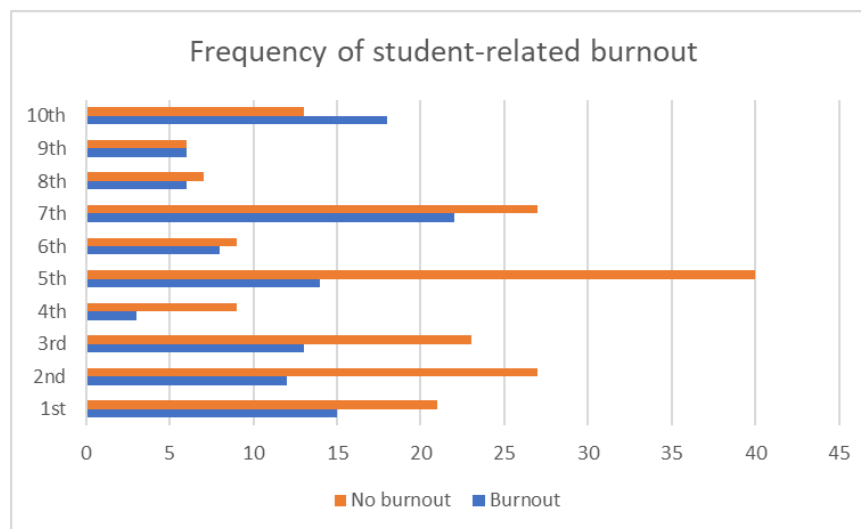


Figure 4: Frequency of student-related burnout each semester.

interventions can be implemented to avoid burnout's detrimental consequences.

5. Conclusions

We concluded that burnout is common among physical therapy students, with personal burnout being the most prevalent form of burnout.

Conflict of Interest

All the authors declare no conflicts of interest.

Funding

There were no funding contributions for this research from any source.

Study Approval

This study was approved by the Margalla Institute of Health Sciences, Islamabad, Pakistan.

Consent Forms

Every participant signed a consent form before participating in the research.

Authors Contributions

SN conceptualized the study, SN STZ did the experimental part and analysis of the results, SN supervised the whole project and wrote the final manuscript.

Data Availability

All the data relevant to this study is with the authors.

Acknowledgments

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