

## Prevalence of Anxiety and Depression in Physical Therapy Students from All Batches of Sarhad University

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### Abstract

Anxiety is a negative emotional condition that is usually accompanied by high blood pressure and worrying too much. Depression is an abnormal mood disorder that is associated with loss of interest, anhedonia or loss of pleasure and constant negative thoughts. The objective of this descriptive cross-sectional research was to evaluate the level of anxiety and depression in Doctor of Physical Therapy (DPT) student population of Sarhad Institute of Allied Health

Sciences, Sarhad University of Science and Information technology. A total of 109 respondents (50 males [45.9%] and 59 females [54.1%]) were used in the study through a non-probability convenience sampling method through a standardized questionnaire. The anxiety levels were defined as mild (0-7: 18 participants [16.5%]) moderate (8-10: 40 [36.7%]) and severe (11-21: 51 [46.8%]). The levels of depression had severe symptoms in 46 (42.2%) participants, mild in 40 (36.7%) and moderate in 23 (21.1%). We have found that anxiety and depression are very prevalent among DPT students, and females were disproportionately affected.

**Keywords:** Anxiety, Depression, Sarhad University.

### Introduction

Anxiety is an aversive emotional condition that is marked by high blood pressure and worrying (Ferreira et al., 2020). It is a common physical occurrence in regular stressful life circumstances like giving a speech or a test, yet it is a pathological condition when it is excessive, widespread, and disruptive to normal functioning (Gallagher et al., 2014). Depression is a mood disorder characterized by the lack of interest, anhedonia (impossibility of pleasure), constant negative thoughts, low mood and aversion to activity (Hoying et al., 2020; Hoffman et al., 2015). It is known to afflict nearly 3.5 percent of the world population, or about 280 million individuals of all ages, influencing cognition, behavior, feelings and general well-being.

Physical therapists are experts engaged in the maximization of human movement, improvement of mobility, and health promotion. Training in Turkey must include 11 years of upper secondary education (or equivalence) and a pass score on the national university entrance exam, after which a four-year undergraduate course at such schools as the School of Physical Therapy and Rehabilitation at Pamukale University is completed. It involves a coursework of three years that is supplemented by summer clinical practice, and then the final year is an internship of full-time during the fourth year. The program focuses on developing socially responsible professional who would be prepared to work with patients.

Increased awareness across the world has centered at the psychological well-being of college students, especially the health sciences trainees (Zivin et al., 2009). Medical and dental students in Saudi Arabia were expected to experience high depression, anxiety, and stress, which was achieved despite normal self-efficacy and life satisfaction (Aboalshamat et al., 2015). It has been confirmed in reviews that medical students have an increased rate of depression and anxiety as well as health-related distress with breakdowns in nursing undergraduates (Sasso et al., 2016). According to Kocyigit et al. (2015), severe anxiety and depression affect learning and cognitive ability. Physical therapeutic programs are built with stiff and dictatorial systems that encourage competition instead of cooperation, and high-pressure programs worsen emotional turmoil at a level that exceeds that of the general population.

There is mounting evidence of the growth and intensity of mental illness cases in higher education institutions (Gallagher et al., 1996; Eisenberg et al., 2007; Pledge et al., 1998). Centers of college counseling reported that the number of students who sought help due to anxiety disorder had increased by 89 percent over the period between 2009 and 2014. In the 2014-2015 academic year, anxiety was diagnosed and treated in one out of

every six U.S. undergraduates, indicating that more campus support services are needed (Hoffman et al., 2015).

Graduate and professional students, including medical trainees, are disproportionately vulnerable to anxiety with higher levels of prevalence than among the general population (Dyrbye et al., 2005). These factors are intensive training, excessive work and high stakes. This trend underscores the need to have customized mental health interventions that would combat the particular stressors in the academic and clinical environment (Turnipseed et al., 1998; Willcock et al., 2004).

### Methodology

This cross-sectional study was descriptive and aimed to determine the levels of anxiety and depression among Doctor of Physical Therapy (DPT) students in Sarhad Institute of Allied Health Sciences (SIAHS), Sarhad University of science and Information Technology (SUIT) in Peshawar, Pakistan. The population of interest was all DPT students irrespective of the academic year. The study was conducted in a period of 6 months (March 2024-September 2024), however, with non-probability convenience, the study used a convenience sample of 109 participants, which was calculated using the Raosoft sample size calculator.

Inclusion criteria included enrolled DPT students at SUIT that were currently enrolled and gave informed consent. Exclusion criteria were students unavailable at the time of data collection or those who revealed to have pre-existing medical/psychiatric conditions that might favor a specific outcome. Participants agreed to the proposed research and their confidentiality and privacy were ensured following an ethical approval by the research committee of SUIT (Department of Physical Therapy and Rehabilitation). The data were gathered through the use of a structured questionnaire which was administered through both physical and online system to be accessible to multiple batches. The main scale was the validated Hospital Anxiety and Depression Scale (HADS) which is a 14-item measure (7 anxiety, 7 depression) measured on a 4-point Likert scale. The scores were classified as normal (0-7), borderline abnormal (8-10) and abnormal (11-21). To investigate connections, a demographic section was obtained since it included age, gender, academic year, and applicable medical history.

The SPSS software was used to analyze the results. Frequencies and percentages were used as descriptive statistics of demographics, HADS scores, and prevalence levels.

### Results

Figure 4.1 shows that out of the 109 DPT student participants, 59 (54.1) were female and 50 (45.9) were male.

Anxiety Subscale (HADS-A) Results: The most frequent answers were that the participants have felt tense or wound up occasionally (55, 50.5%) or most of the time (28, 25.7%) (Figure 4.2). Frozen (63.3%), which culminated in yes, but not too badly (Figure 4.4), supported a frightened feeling as if something horrible could happen, whereas butterflies in the stomach was never, occasionally or more often (Figure 4.4). Concerned thoughts were also present every now and then (39, 35.8%) or very often (48, 44.1%) (Figure 4.6) and sudden panic was a low occurrence (never: 79, 72.5%) (Figure 4.14). Inability to sit relaxed was also notable (not at all: 70, 64.2; Figure 4.8) and restlessness was nonexistent with 52 (47.7) (Figure 4.12).

Depression Subscale (HADS-D) Results: The results in the depression subscale showed that loss of delight was evident since 59 (54.1) enjoyed things only a little and 34 (31.2) barely at all (Figure 4.3). Lack of ability to laugh/find the funny side was almost universal (not at all: 94, 86.2%; Figure 4.5), and cheerfulness was missing in majority (83, 76.1%) (Figure 4.7). The slower feelings were affected to some extent (97 (89.0)) (Figure 4.9), loss of interest in appearance was definite (98 (89.9)) (Figure 4.11) and looking forward to things was hardly at all (78 (71.6)) (Figure 4.13). The pleasure in reading books/radio/TV was not frequent among 105 (96.3) (Figure 4.15).

The clinical hours that the participants spent were more in acute care (days to weeks: 72, 66.1) over sub-acute care (up to 6 months: 37, 33.9) (Figure 4.16).

In general, the levels of anxiety scores were abnormal (11-21) in 51 (46.8%), borderline (8-10) in 40 (36.7%), and normal (0-7) in 18 (16.5%) (Figure 4.18). The levels of depression scores were abnormal (n=46), normal (n=40), and borderline (n=23) (Figure 4.17).

### Discussion

Current research demonstrates that the level of anxiety (46.8% of abnormal scores) and depression (42.2% of abnormal scores) is very high among Doctor of Physical Therapy (DPT) students of Sarhad Institute of Allied Health Sciences, with anxiety and depression being very common in healthcare education in general, with rigorous curricula making matters worse (Kocyigit et al., 2015; Dyrbye et al., 2005). The disproportion was highest among the female students (54.1% of sample), which aligns with the earlier research findings that women are highly stressed due to conflicts between academic sciences and personal life, as well as societal expectations (Siddique et al., 2019). Such gender differences, combined with a rigorous combination of courses and clinical placements (66.1% acute care rotation) of the program, resemble the trends of physical therapy students in Brazil and Saudi Arabia (Ferreira et al., 2020; Algarni et al., 2020).

This competitive culture at the cost of teamwork deteriorates cognitive functioning, learning, and the development of empathy that are imperative in the treatment of patients in the future (Kocyigit et al., 2015; Barbosa et al., 2013; Shanafelt et al., 2002). The answers in HADS subscale focused on pervasive symptoms: 86.2 percent could not laugh/see humor, 89.9 percent had lost interest on appearance and 96.3 percent rarely enjoyed media, which reflected high levels of anhedonia and functional impairment as compared to a general student population (Zivin et al., 2009; Aboalshamat et al., 2015). Future Directions and Limitations. The causality of academic stressors and outcomes is not allowed in the cross-sectional design. The efficacy of intervention (e.g., mindfulness, routine HADS screening) should also be measured with the help of longitudinal studies including larger and multi-institutional samples and the progress should be followed through training. The gender tailoring supports and the curriculum changes promoting the cooperation should be examined (Hoying et al., 2020).

Implications. Universities should consider counseling and stress management programs, as early screenings because the number of people requiring counseling increases by 89% (Gallagher et al., 2014). The establishment of favorable environments will aid in maintenance of academic success and professionalism and wellbeing and equip physical therapists to serve in a nurturing code (Turnipseed et al., 1998; Willcock et al., 2004).

### Conclusion

We have inferred high prevalence of depression and in the present study. Anxiety among DPT students. With 59(54.1) therefore, females were the highest hit. males were 50(45.9%)

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