# Prevalence of Psychological Distress in Physiotherapy Interns

**Dr. Amber Jamaal[1], Elisabeth Alexon[2], Prof. A. K. Vijay Krishna Kumar[3]**

[1]Lecturer, Dr. B.R. Ambedkar College of Physiotherapy, Bangalore, India.
[2]Intern, Dr. B.R. Ambedkar College of Physiotherapy, Bangalore, India.
[3]Principal, Dr. B.R. Ambedkar College of Physiotherapy, Bangalore, India.

**Abstract**

**Background:**
Psychological distress characterized by symptoms of depression, anxiety, and physiological manifestations such as fatigue and sleep disturbances is increasingly recognized as a significant concern among health care trainees. Physiotherapy interns are particularly susceptible due to the transition from academic learning to intensive clinical responsibilities, heightened performance expectations, and uncertainties regarding professional competence and future employment. Understanding the burden of distress in this group is essential for guiding support strategies during their training period.

**Objective:**
To determine the prevalence of psychological distress among physiotherapy interns.

**Methodology:**
A cross-sectional survey was conducted among 122 physiotherapy interns including both male and females within the age range of 22-26 years. Participants completed the self-administered DASS-42 questionnaire. Data were analyzed using descriptive statistics in SPSS version 20.0. Interns who consented to participate were included, while those on psychiatric treatment or those who provided incomplete responses were excluded.

**Results:**
The findings demonstrated that psychological distress was prevalent at moderate to severe levels among physiotherapy interns. Gender-based analysis indicated that female interns exhibited predominantly severe distress profiles, whereas male interns reported mild to moderate levels. Age-wise distribution revealed that interns aged 22–24 years showed the highest burden of distress across the DASS domains.

**Conclusion:**
Psychological distress is notably high among physiotherapy interns, with greater severity observed in females and in interns at the younger end of the internship age range. These findings underscore the need for early screening, structured mental-health support systems, and interventions aimed at promoting emotional resilience during internship training.

**Keywords:** Psychological distress, Physiotherapy interns, DASS-42, Mental health, Prevalence

## INTRODUCTION

Globally, the prevalence of psychological suffering is rising. Healthcare workers are more likely to experience stress, anxiety and depression due to their demanding work settings and high standards in the medical field[1]. Stress is a personal experience brought on by something that hurts either physically or mentally. Stress can be either healthy or detrimental, yet it is a natural component of life. In order to maintain awareness, balance, and connection, healthy stress management is helpful. Moreover, it may encourage the acquisition of information and abilities and contribute to the development of positive outcomes including maturity, self- assurance, and the ability to tolerate ambiguity[2]. Psychological Distress (PD) is broadly defined as a state of emotional suffering characterized by symptoms of depression (e.g. loss of interest; unhappiness; desperateness) and anxiety (e.g.; restlessness, feeling tense). It's also characterized by other symptoms like; wakefulness, headaches, and lack of energy which are likely to vary across different areas. In addition to biological, psychological, and socioeconomic factors, there are other elements that contribute to the development of psychological distress[3]. For physiotherapy professionals, work-related risk factors including prolonged static postures, repetitive physical tasks, handling patients with significant physical effort, and sustained cognitive and emotional engagement may contribute to heightened vulnerability[4]. Physiotherapy interns take on greater responsibilities during clinical training, which can lead to increased psychological distress that may negatively affect their mental health, clinical performance, future careers, and overall well-being[4]. Currently, there is limited evidence on the prevalence of psychological distress among physiotherapy interns. So, the purpose of this study is to provide essential data on their mental health status and to support the development of effective interventions and support systems to help interns manage these challenges

## METHODOLOGY:

### Study Design

This study employed a cross-sectional survey to estimate the prevalence of psychological distress among physiotherapy interns.

### Study Setting

Data were collected from physiotherapy interns enrolled at Dr. B. R. Ambedkar College of Physiotherapy and other physiotherapy institutions located in and around Bangalore, Karnataka. The survey was conducted using an online platform to facilitate broad participation across institutions.

### Study Population

The target population consisted of physiotherapy interns aged 22–26 years, actively undergoing internship training during the study period.

## ELIGIBILITY CRITERIA

### Inclusion Criteria

- Physiotherapy interns willing to participate and provide informed consent.
- Both male and female interns within the age range of 22–26 years.

### Exclusion Criteria

- Interns unwilling to participate.
- Incomplete or partially submitted questionnaire responses.
- Interns undergoing psychiatric treatment at the time of data collection.

## SAMPLE SIZE AND SAMPLING METHOD

A total of 122 physiotherapy interns were recruited using a convenience, non-probability sampling technique, appropriate for exploratory and prevalence-based cross-sectional studies.

## OUTCOME MEASURE

- Psychological distress, measured using the Depression, Anxiety, and Stress Scale-42 (DASS-42).

## DATA COLLECTION PROCEDURE

Data were collected using a self-administered Google Form questionnaire, which included demographic information and the validated DASS-42 scale. The survey link was distributed electronically through institutional groups and social media platforms. Participants completed the questionnaire voluntarily and anonymously. Responses were automatically recorded in a secure database for coming analysis.

## DATA MANAGEMENT AND STATISTICAL ANALYSIS

All data were extracted into Microsoft Excel and subsequently analyzed using SPSS version 20.0.

- Categorical variables (e.g., gender, DASS categories) were summarized using frequencies and percentages.
- Data screening procedures were performed to exclude incomplete responses, in accordance with the predefined exclusion criteria.
- Prevalence estimates for depression, anxiety, stress, and overall psychological distress were derived from DASS-42 scoring guidelines.

## RESULT

This study was done to determine the prevalence of Psychological Distress among Physiotherapy Interns using the DASS-42 Questionnaire, a comprehensive tool comprising 42 questions. The study included 122 respondents, comprising 77 females and 45 males and the questions were circulated to them via Google form.

The data on Age distribution indicated that 59.02% of the participants were between 22-23 years old, while 40.98% were between 24-25 years old. The average age was 23.4±0.65 years.

The data showed that among the participants, 5.7% had normal levels of depression, 10.7% experienced mild depression, and 25.4% had moderate depression. The largest group, comprising 40.2%, suffered from severe depression, while 18.0% we're classified as extremely severe.

Among 122 participants, 4.9% were classified as having normal anxiety levels, while 4.1% experienced mild anxiety. Moderate anxiety was reported by 23.8%, and 22.1% had severe anxiety. The largest group, 45.1%, fell into the extremely severe anxiety category, highlighting a significant proportion of participants with high levels of anxiety.

The data on Stress levels showed that among 122 participants, 9.8% had normal stress levels, while 16.4% experienced mild stress. Moderate stress was reported by 28.7% of the participants, and 37.7% fell into the severe stress category. A smaller group, comprising 7.4%, experienced extremely severe stress. These findings highlight that a majority of individuals in this sample experienced moderate to severe stress levels.

The present data on Depression severity categorized by gender, showing percentages of individuals within each depression level. Among females, the highest proportion (39%) falls in the “Severe” depression category, with 22.1% experiencing both “Moderate” and “Extremely Severe” depression. Smaller percentages were observed in the “Normal” (5.2%) and “Mild” (11.7%) groups. For males, the largest group (42.2%) also experiences “Severe” depression, followed by “Moderate” (31.1%). Fewer males are in the “Extremely Severe” (11.1%), "Normal" (6.7%), and "Mild" (8.9%) categories. No significant gender difference was found in depression levels.

The data on Anxiety severity distributed by gender, indicating the percentage of individuals in each category. Among females, 44.2% experience "Extremely Severe" anxiety, while
27.3% are categorized as "Severe" and 19.5% as "Moderate". Smaller percentages were recorded in the "Normal" (6.5%) and "Mild" (2.6%) groups. For males, the majority (46.7%) also fall into the "Extremely Severe" category, followed by "Moderate" (31.1%). Fewer males were in the "Severe" (13.3%), "Mild" (6.7%), and "Normal" (2.2%) categories of Anxiety severity.

The present data displays Stress levels by gender, with corresponding percentages for each group. Among females, the largest proportion (41.6%) is categorized as "Severe", followed by "Moderate" (26%) and "Normal" (11.7%). Smaller groups of females were identified in the
"Extremely Severe" (10.4%) and "Mild" (10.4%) categories. For males, most were in the "Moderate" (33.3%) and "Mild" (26.7%) groups, while 31.1% experienced "Severe" stress.

The "Normal" (6.7%) and "Extremely Severe" (2.2%) categories had fewer males. The gender difference in stress levels was not statistically significant (p=0.055). However, female Physiotherapy Interns experienced higher levels of stress than male Physiotherapy Interns.

**Table 1: Age Distribution**

| AGE | FREQUENCY | PERCENT |
|---|---|---|
| 22-23 years | 72 | 59.016 |
| 24-25 years | 50 | 40.984 |
| Total | 122 | 100.000 |

The data on age distribution indicates that 59.02% of the participants were between 22-23 years old, while 40.98% were between 24-25 years old. The average is 23.4±0.65 years.

**Figure 1: Representation of Age**

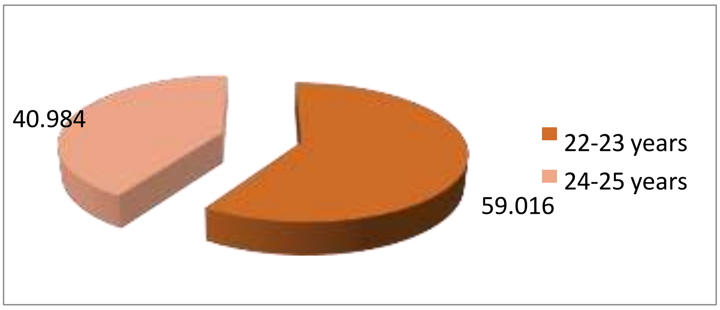



**Table 2: Gender Distribution**

| **Gender** | **Frequency** | **Percent** |
|---|---|---|
| **Male** | 45 | 36.88% |
| **Female** | 77 | 63.11% |

**Figure 2: Representation of Gender**

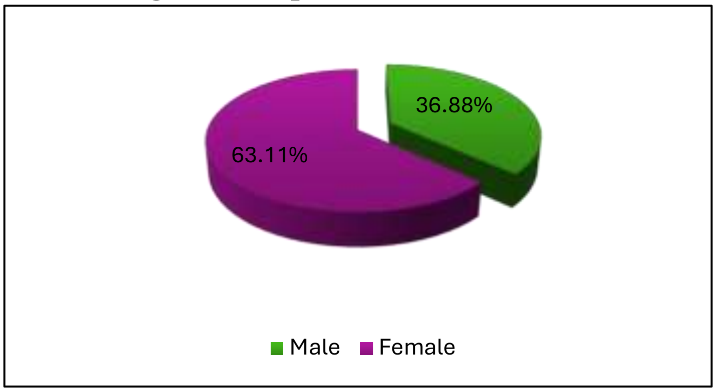



**Table 3: Frequency distribution based on level of Depression**

| | | Frequency | Percent |
|---|---|---|---|
| Depression | Normal | 7 | 5.7 |
| | Mild | 13 | 10.7 |
| | Moderate | 31 | 25.4 |
| | Severe | 49 | 40.2 |
| | Extremely Severe | 22 | 18.0 |
| | Total | 122 | 100.0 |

The data shows that among the participants, 5.7% had normal levels of depression,10.7% experienced mild depression, and 25.4% had moderate depression. The largest group, comprising 40.2%, suffered from severe depression, while 18.0% were classified as extremely severe. In total, 122 individuals were included in this analysis.

**Figure 3: Representation based on the level of Depression**

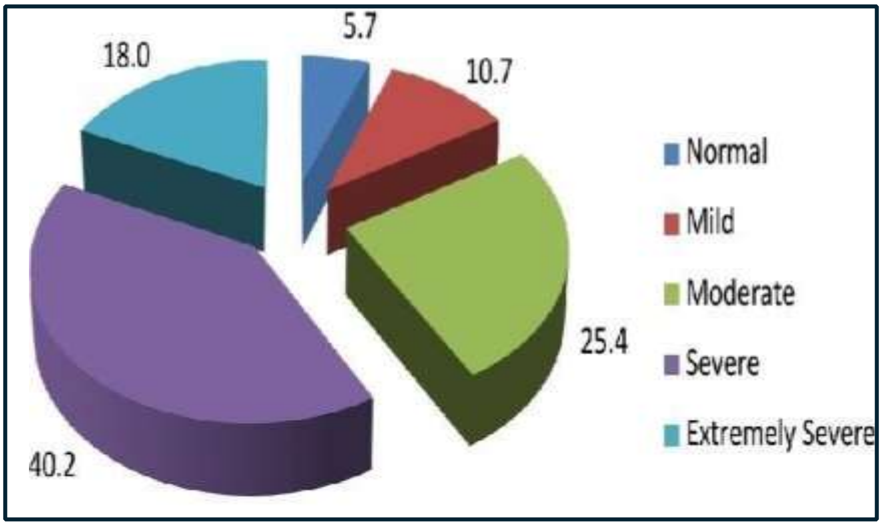
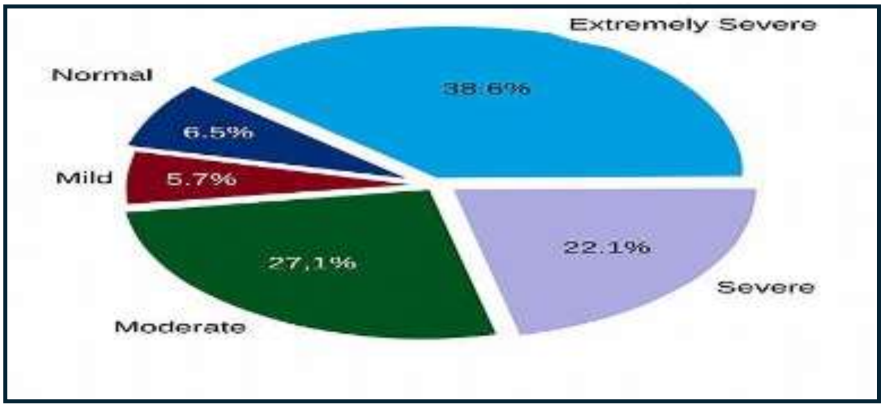


**Table 4: Frequency distribution based on the level of Anxiety**

| | | Frequency | Percent |
|---|---|---|---|
| Anxiety | Normal | 8 | 6.5% |
| | Mild | 7 | 5.7% |
| | Moderate | 33 | 27% |
| | Severe | 27 | 22% |
| | Extremely Severe | 47 | 38.5% |
| | Total | 122 | 100% |

The table presents data on anxiety levels among 122 participants. Of these, 6.5% were classified as having normal anxiety levels, while 5.7% experienced mild anxiety. Moderate anxiety was reported by 27%, and 22% had severe anxiety. The largest group, 38.5%, fell into the extremely severe anxiety category, highlighting a significant proportion of participants with high levels of anxiety.

**Figure 4: Representation based on level of Anxiety**

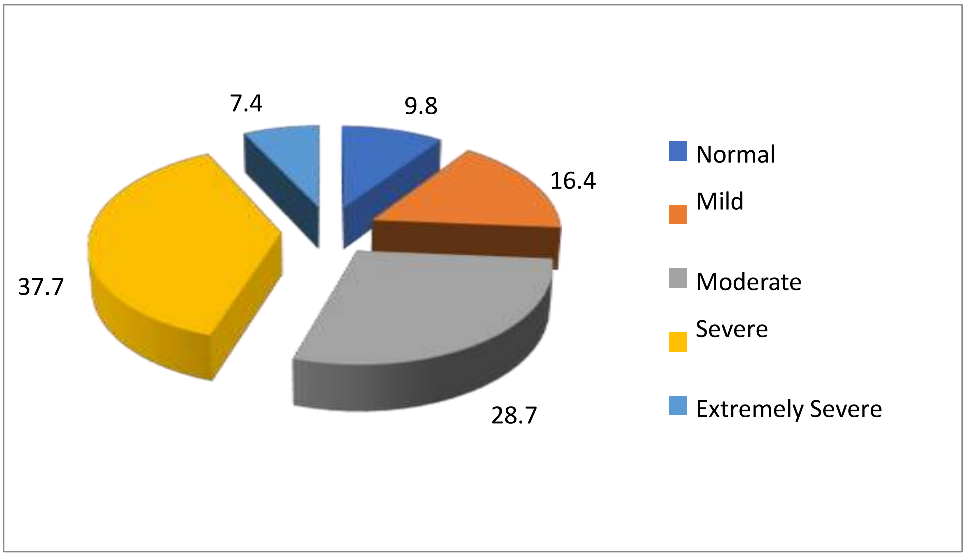



**5: Frequency distribution based on the level of Stress**

| | | Frequency | Percent |
|---|---|---|---|
| Stress | Normal | 12 | 9.8 |
| | Mild | 20 | 16.4 |
| | Moderate | 35 | 28.7 |
| | Severe | 46 | 37.7 |
| | Extremely Severe | 9 | 7.4 |
| | Total | 122 | 100.0 |

The data on stress levels shows that among 122 participants, 9.8% had normal stress levels, while 16.4% experienced mild stress. Moderate stress was reported by 28.7% of the participants, and 37.7% fell into the severe stress category. A smaller group, comprising 7.4%, experienced extremely severe stress. These findings highlight that a majority of individuals in this sample experienced moderate to severe stress levels.

**Figure 5: Representation based on level of Stress**

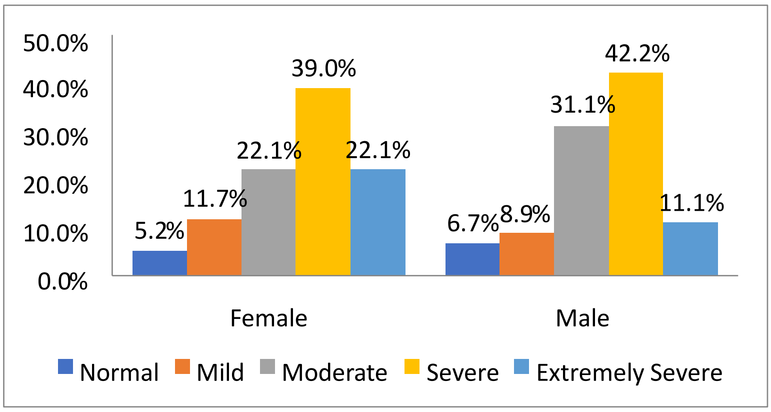



**6: Cross tabulation of Gender and Depression**

| Gender | Depression | | | | | Total | Chi square | p value |
|---|---|---|---|---|---|---|---|---|
| | Normal | Mild | Moderate | Severe | Extremely Severe | | | |
| Female | 4 | 9 | 17 | 30 | 17 | 77 | 3.198 | 0.525 |
| | 5.20% | 11.70% | 22.10% | 39% | 22.10% | 100% | | |
| Male | 3 | 4 | 14 | 19 | 5 | 45 | | |
| | 6.70% | 8.90% | 31.10% | 42.20% | 11.10% | 100% | | |

The table presents data on depression severity categorized by gender, showing percentages of individuals within each depression level. Among females, the highest proportion (39%) falls in the "Severe" depression category, with 22.1% experiencing both "Moderate" and "Extremely Severe" depression. Smaller percentages were observed in the "Normal" (5.2%) and "Mild" (11.7%) groups. For males, the largest group (42.2%) also experiences "Severe" depression, followed by "Moderate" (31.1%). Fewer males are in the "Extremely Severe" (11.1%), "Normal" (6.7%), and "Mild" (8.9%) categories. No significant gender difference was found (p = 0.525).

**Figure 6: Representation based on level of Gender & Depression.**




**7: Cross tabulation of Gender and Anxiety**

| Gender | Anxiety | | | | | Total | Chi square | p value |
|---|---|---|---|---|---|---|---|---|
| | Normal | Mild | Moderate | Severe | Extremely Severe | | | |
| Female | 5 | 2 | 15 | 21 | 34 | 77 | 12.22 | 0.016 |
| | 6.5% | 2.6% | 19.5% | 27.3% | 44.2% | 100% | | |
| Male | 3 | 5 | 18 | 6 | 13 | 45 | | |
| | 6.67% | 11.11% | 40.00% | 13.33% | 28.89% | 100% | | |

The table shows anxiety severity distributed by gender, indicating the percentage of individuals in each category. Among females, 44.2% experience "Extremely Severe" anxiety, while 27.3% are categorized as "Severe" and 19.5% as "Moderate." Smaller percentages were recorded in the "Normal" (6.5%) and "Mild" (2.6%) groups. For males, the majority (28.89%) also fall into the "Extremely Severe" category, followed by "Moderate" (40%). Fewer males were in the "Severe" (13.33%), "Mild" (11.11%), and "Normal" (6.67%) categories. The gender difference in anxiety levels was not statistically significant (p = 0.016).

**Figure 7: Representation based on level of Gender and Anxiety**

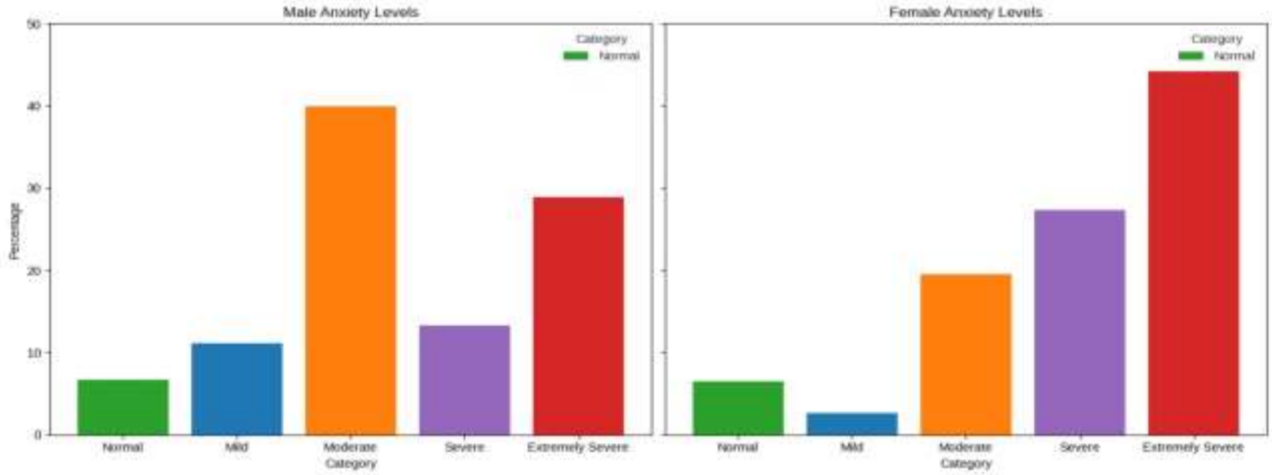
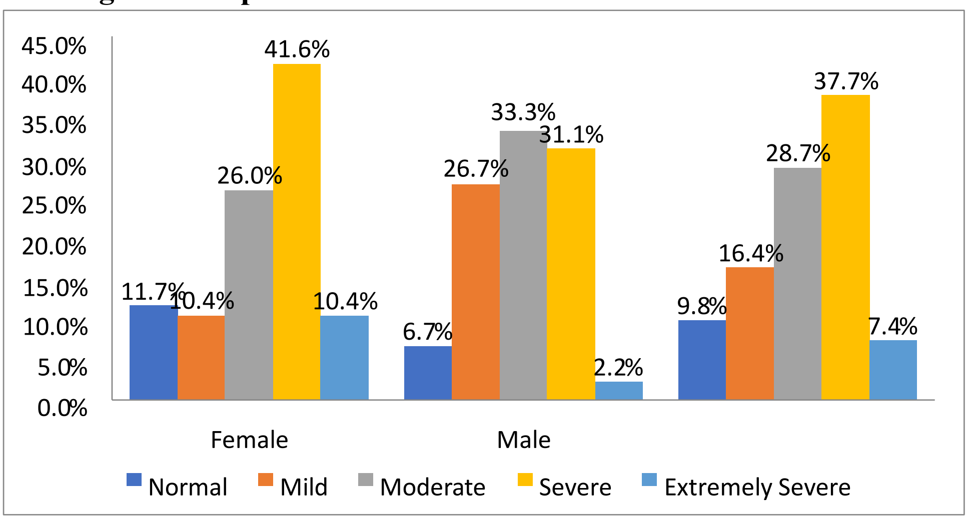



**Table 8: Cross tabulation of Gender and Stress**

| Gender | Stress | | | | | Total | Chi square | p value |
|---|---|---|---|---|---|---|---|---|
| | Normal | Mild | Moderate | Severe | Extremely Severe | | | |
| Female | 9 | 8 | 20 | 32 | 8 | 77 | 9.254 | 0.055 |
| | 11.69% | 10.39% | 25.97% | 41.56% | 10.39% | 100% | | |
| Male | 3 | 12 | 15 | 14 | 1 | 45 | | |
| | 6.67% | 26.67% | 33.33% | 31.11% | 2.22% | 100% | | |

The table displays stress levels by gender, with corresponding percentages for each group. Among females, the largest proportion (41.56%) is categorized as "Severe," followed by "Moderate" (25.97%) and "Normal" (11.69%). Smaller groups of females were identified in the "Extremely Severe" (10.39%) and "Mild" (10.39%) categories. For males, most were in the "Moderate" (33.33%) and "Mild" (26.67%) groups, while 31.11% experienced "Severe" stress. The "Normal" (6.67%) and "Extremely Severe" (2.22%) categories had fewer males. The gender difference in stress levels was not statistically significant (p = 0.055).

**Figure 8: Representation based on level of Gender and Stress**



**DISCUSSION:**

All medical professions carry immense responsibilities for the well-being and lives of others. It demands unwavering focus, constant vigilance, and the ability to remain calm under continuous pressure. Every task must be performed with precision, often within strict time constraints, while balancing the weight of life and mental health in each decision. This has been noted in a study conducted by E. Niewiadomska, who reported high levels of stress and burnout among both medical students and healthcare professionals. Healthcare professionals highlighted emotional exhaustion, decision-making pressure, and the challenge of balancing mental health with clinical precision as key contributors to burnout[5].

This study aimed to determine the prevalence of psychological distress among physiotherapy interns using the DASS-42 questionnaire, a comprehensive tool comprising 42 questions. The study included 122 respondents, consisting of 77 females and 45 males, and the questionnaire was circulated via Google Forms. The mean age of the participants in this study was 23.4 ± 0.65 years, which was in line with the study done by Shailaja Singh et al[6]. Another study done by T. Shah et al. yields similar results in respect to age[7]. Notably, depression, anxiety, and stress were significantly more prevalent among participants aged 22 to 24 years.

In the present study, Tables 6, 7, and 8 represent gender-based data on depression, anxiety, and stress out of which females falls under 22.1% of extremely severe category of depression, 44.2% under the extremely severe category of anxiety, and 10.39% of extremely severe category of stress while the male participants fall under 11.10% in the extremely severe category of depression, 28.89% of extremely severe category of anxiety, and 2.22% extremely severe category of stress.This present study showed that females are severely affected than males. And this is in line with the study done by R. Sawant et al[8]. According to a study done by RA Burnavi et al , he suggested that Nevertheless, both male and female interns experienced significant levels of stress[9].In a study done by Alberto et al on gender differences in Psychological stress factors during COVID-19 pandemic concluded that female participants showed worse levels of general health perception, quality of life, depression, anxiety, stress and loneliness compared to male participants[10]. In a study conducted by M. Ismael et al. stated that the psychological distress of respondents is determined by three factors: depression, anxiety, and stress[11].

In the present study, Table 3 represents the frequency distribution based on levels of depression. The findings reveal that 5.7% of participants had moderate depression and largest proportion, 40.2% suffered from severe depression, while 18%were categorised as extremely severe depression and this is in line with the study done by R Malanie et al. which states the highest depressive symptoms seen in medical interns than the general population[12].

Table 4 presents the distribution of anxiety levels in the population. Normal anxiety was observed in 6.5% of participants, while 5.7% reported mild anxiety. Moderate anxiety was reported by 27% of the population, and 22% experienced severe anxiety. A higher proportion (38.5%) displayed extremely severe anxiety, findings that are consistent with the study conducted by T Shah et al[7].

Table 5 presents the frequency distribution of stress levels in the population. Normal stress levels were observed in 9.8% of participants, while 16.4% experienced mild stress. Moderate stress was reported by 28.7% of participants, and 37.7% fell into the severe stress category. A smaller proportion (7.4%) reported extremely severe stress, which is consistent with the findings of Shah AS et al[13].

Based on the findings of the present study, a considerable prevalence of psychological distress was observed, highlighting the importance of mental health. Addressing psychological stress can foster resilience and personal growth. Healthcare practitioners are expected to deliver the highest standard of care in accordance with their professional ethos; however, their own mental health should not be overlooked. This finding is consistent with the study conducted by Isaac KS Ng et al[14].

## LIMITATIONS

- Participants might not provide fully accurate responses due to factors like social desirability, misinterpretation of questions or under-reporting sensitive issues such as depression or anxiety.
- This study only captured data at a single point of time. This limits the ability to establish

or to detect changes in mental health over time.

## RECOMMENDATIONS

It is recommended to include a larger sample size and participants from different geographical areas to obtain more realistic results.

## CONCLUSION

In conclusion, this study found that physiotherapy interns experience moderate to severe psychological distress. Gender-based analysis showed that female interns reported severe distress, while males demonstrated mild to moderate levels. Distress was highest among individuals aged 22 to 24 years. Overall, the findings indicate that the internship period is a demanding stage for physiotherapy trainees, during which many face significant psychological strain that can adversely affect their mental well-being.

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