

Assessment of Depression, Anxiety and Stress among the Undergraduate Physiotherapy Students

Sonali Uikey¹, Richa K. Ingle²

¹Associate Professor, ²Intern, Department of Physiotherapy, Shri. K. R. Pandav College of Physiotherapy, Bhilewada, Bhandara Maharashtra.

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Abstract

Background: Today, psychological morbidities such as depression, anxiety and stress are most common psychiatric health issues worldwide. Stress in medical education especially among the undergraduate students has become a global phenomenon nowadays. According to WHO, depression is the most common mental disorder, characterised by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, low energy and poor concentration and disturbance in sleep or appetite, Anxiety disorders are characterised by excessive fear and worry and related behavioural disturbances and stress is defined as a state of worry or mental tension caused by a difficult situation. This study is important to identify the risk factors of depression, anxiety and stress among the undergraduate physiotherapy students, as it affects their health as well as their academic achievements. The aim and objective of this study is to assess depression, anxiety and stress among the undergraduate physiotherapy students by using DASS-21 scale.

Methods: This is an observational study was conducted in a Physiotherapy College in Maharashtra. The total duration of this study was 6 months from October 2022 to March 2023. Data was collected from 43 undergraduate physiotherapy students from first year to fourth year by using a DASS-21 questionnaire.

Conclusion: Psychological illness in the form of depression, anxiety and stress have been reported in substantial proportion of undergraduate. Depression has been reported in 76.74% of students, while anxiety and stress were found in 86.05% and 83.72% respectively. Organized interventions should be initiated to prevent excessive psychological illness among undergraduate physiotherapy students.

Key Words: Depression, Anxiety, Stress, DASS-21, Undergraduate Physiotherapy students.

Introduction

Today, psychological morbidities such as depression, anxiety and stress are most common psychiatric health issues worldwide. Stress in medical education especially among the undergraduate students has become a global phenomenon nowadays. During the first year, due to academic and emotional

factors while in subsequent years, patient care and physical factors are more remarkable.¹

Generally, the competitive academic environment, excessive working hours, lack of recreational activities, lack of peer support, staying away from home and financial problems are the common reasons of depression, anxiety and stress.²

Corresponding Author: Sonali Uikey, Associate Professor, Department of Physiotherapy, Shri. K. R. Pandav College of Physiotherapy, Bhilewada, Bhandara Maharashtra.

Email ID: sonali03uikey@gmail.com

Depression is extremely dominant and widespread problem across the nation. According to WHO, depression is the most common mental disorder, characterised by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, low energy and poor concentration and disturbance in sleep or appetite.¹

According to WHO, Anxiety disorders are characterised by excessive fear and worry and related behavioural disturbances. Symptoms are severe enough to result in significant distress or significant impairment in functioning⁴. It is considered as a state of uneasiness, feeling of fear and dread; feel restless and tense and have a rapid heartbeat. It is a bodily response to a perceived danger that could be real or imaginary and triggered by an individual's thoughts, beliefs and feelings.¹

Generally, according to WHO stress is defined as a state of worry or mental tension caused by a difficult situation. Stress is a natural human response that prompts us to address challenges and threats in our lives⁴. Academic stresses develop the sense of competition and motivation among students and encourage learning. However, sometimes this stress produces anxiety and feelings of helplessness, leading to the stress related disorders and adversely affecting academic and non-academic performance.¹

Failure to detect the psychological disorders may lead to increased mental illness, morbidity with undesired effects throughout their career and lives. Early detection of such problems shortens the duration of the episode and lessens the social impairment in long term.²

Material and Methods

1. This study is an observational study was conducted among the undergraduate physiotherapy students at College of Physiotherapy in Maharashtra. The sample size estimated for this study is 43. The duration of the study was 6 months from October 2022 to March 2023. The sample technique used in this study was convenient sampling technique. The sample was calculated by utilizing the standard formula:

$$n = \frac{Z^2 1-\alpha/2 \times p \times (1-p)}{d^2}$$

where, p= proportion, d= absolute precision and $Z_{1-\alpha/2} = 1.96$ for 95%.

The Inclusion criteria for this study was undergraduate physiotherapy students from first year to fourth year and the students who gave the consent. Those students who do not gave consent was excluded from this study. This study was carried out by using the Depression Anxiety Stress Scale (DASS-21) which is a 21 item questionnaire, this is a self-reported scale having a set of all these three states depression, anxiety and stress.

Result and Discussion

The study which was undertaken for the assessment of Depression, Anxiety and Stress among the undergraduate physiotherapy students has yielded the following results.

A total number of 43 undergraduate physiotherapy students participated in the study. The survey response rate was 100%. Mean age of participants was 20.27 ± 1.57 (18 – 24) years. Around 35 (81.40%) students were female and 8 (18.60%) were male (Table no. 1). DASS-21 questionnaire was used to collect the frequency of depression, anxiety and stress.

Data were interpreted as Depression was present in 20 (46.52%) undergraduate physiotherapy students were as 10 (23.26%) involved mildly, 10 (23.26%) moderately and absent in 23 (53.49%) (Table no. 3).

Anxiety was present in 25 undergraduate physiotherapy students. Those who had anxiety been categories as, students with mild anxiety were 6 (13.95%), moderate 17 (39.53%) and severe 2 (4.65%) and was absent in around 18 (41.86%) undergraduate physiotherapy students out of 43 (Table no.4).

Similarly, Stress was present in 8 (18.61%), involved students categories according to DASS ranking criteria, those students who mildly involved in stress are 7 (16.28%), 1 (2.33%) involved moderately and was absent in 35 (81.40%) undergraduate physiotherapy students as shown in the (Table no. 5).

It is observed that Depression, Anxiety and Stress among undergraduate physiotherapy students was 76.74%, 86.05% and 83.72% respectively. They were calculated through adding all the categories like mild, moderate, severe of each of the variable (i.e. DASS).

In the present study, 43 subjects were taken in which 8 are males and 35 are females. The age of subjects varies from 18 to 24. The subjects from first year to fourth year of undergraduate physiotherapy students were taken. DASS-21 questionnaire was given to the students to assess the depression, anxiety and stress among the undergraduate physiotherapy students.

Depression is extremely dominant and widespread problem across the nation. According to WHO, depression is the most common mental disorder. Anxiety is a bodily response to a perceived danger that could be real or imaginary and triggered by an individual's thoughts, beliefs and feelings.¹ Stress produces anxiety and feelings of helplessness, leading to the stress related disorders and adversely affecting academic and non-academic performance.¹ Early detection of such problems shortens the duration of the episode and lessens the social impairment in long term.²

The study on "ASSESSMENT OF DEPRESSION, ANXIETY AND STRESS AMONG THE UNDERGRADUATE PHYSIOTHERAPY STUDENTS". The result showed that it was supporting the aim which was "The assessment of the depression, anxiety and stress among the undergraduate physiotherapy students by using DASS-21 scale."

Conclusion

Psychological illnesses in the form of depression, anxiety and stress have been reported in substantial proportion of undergraduate. Depression has been reported in 76.74% of students, while anxiety and stress were found in 86.05% and 83.72% respectively. Organized interventions should be initiated to prevent excessive psychological illness among undergraduate physiotherapy students. There is a need to establish prevention programs and to bring out evidence based psychological health promotion by organizing psychological sessions for undergraduate physiotherapy students.

Table 1: Gender wise distribution of study population.

| Gender | No. of subjects | Percentage |
|--------|-----------------|------------|
| Male | 8 | 18.60 |
| Female | 35 | 81.40 |

Table 2: Distribution of study population according to Year of studying.

| Year | No. of subjects | Percentage |
|--------|-----------------|------------|
| First | 20 | 46.51 |
| Second | 7 | 16.28 |
| Third | 11 | 25.58 |
| Fourth | 5 | 11.63 |

Table 3: Distribution of study population according to Severity of depression.

| Severity of depression | No. of subjects | Percentage |
|------------------------|-----------------|------------|
| Normal | 23 | 53.49 |
| Mild | 10 | 23.26 |
| Moderate | 10 | 23.26 |

Table 4: Distribution of study population according to Severity of Anxiety.

| Severity of Anxiety | No. of subjects | Percentage |
|---------------------|-----------------|------------|
| Normal | 18 | 41.86 |
| Mild | 6 | 13.95 |
| Moderate | 17 | 39.53 |
| Severe | 2 | 4.65 |

Table 5: Distribution of study population according to Severity of Stress.

| Severity of Stress | No. of subjects | Percentage |
|--------------------|-----------------|------------|
| Normal | 35 | 81.40 |
| Mild | 7 | 16.28 |
| Moderate | 1 | 2.33 |

Table 6: Gender wise Prevalence of Depression, Anxiety and Stress.

| Gender | Prevalence | | |
|---------|------------|-----------|-----------|
| | Depression | Anxiety | Stress |
| Male | 7(87.5) | 6(75) | 7(87.7) |
| Female | 26(74.29) | 29(88.57) | 29(82.86) |
| Overall | 33(76.74) | 35(86.05) | 36(83.72) |

Ethical Clearance: Obtained from the ethical committee of College of Physiotherapy.

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