



Prevalence of Stress and It's Coping Strategies Among Undergraduate Physiotherapy Students of Vadodara - A Cross Sectional Study

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ABSTRACT:

Introduction: Stress is a complex and dynamic process of interaction between a person and his or her life. Stress has a direct impact over person's mental, physical, and social wellbeing. Stress is the body's reaction to changes that requires physical, mental, or physiological adjustment. The term "stress" was first used by Hans Selye, 1936 as "the response of the body to any demand". Studying Physiotherapy can be stressful due to their clinical trainings where students must do communication with patients, intensive curriculum or vastness of syllabus and academic demands, including night awakenings for shifts and for exam preparations. Purpose of the study was to find out the level of stress among undergraduate Physiotherapy of Vadodara and the coping strategies used by them, PSS 14 for stress and ACCOPE Inventory for coping strategies were used.

Objectives: Aim:

- To determine the prevalence of stress and its coping strategies among undergraduate Physiotherapy students of Vadodara.

Objectives:

- To find out the proportion of stress among undergraduate Physiotherapy students of Vadodara.
- To find out the coping strategies used by undergraduate Physiotherapy students of Vadodara.

Methods: All undergraduate Physiotherapy students of Vadodara based on inclusion and exclusion criteria were included in the study. Google form questionnaire was prepared for PSS 14 and ACCOPE Inventory

Results: Total 238 students participated in the study in which 8 students were having no stress, 146 students were having mild stress, 79 students were having moderate stress, and 5 students were having severe stress and most students used listening to music and going along with parent's rules as coping strategies for managing stress.

Conclusions: There is a considerable amount of stress among undergraduate Physiotherapy students of Vadodara.



1. Introduction

Today the term stress is very common for everyone, but it is difficult to understand.¹ It is a complex and dynamic process of interaction between a person and his or her life. Stress can occur in any stage of life.² Today no one is stress free, regardless of how sensible they are. Everyone has stress. Stress has a direct impact over persons mental, physical, and social well-being. Stress plays a major risk factor for many diseases. Stress is the body's reaction to changes that requires physical, mental, or physiological adjustment. The term "stress" was first used by Hans Selye, 1936 as "the response of the body to any demand", while "stressors" are the demands and pressures that lead to stress.^{3, 4} Any change or demand can be said to be a stressor. Some changes or demands in life can be bad and some can be good. Losing a job and finding a new one. A death of a family member may bring changes to your life. A car wreck may cause injuries. These are bad stressors. Some changes or demands in life are good. Getting married is a good thing but getting married may change your life. A new baby is good but new babies are demanding and can bring many stressful events in person's life. These events can change your life in a good way, but they are also stressors (Good Stressors). There are many common stressors. Some last only a short time. This is called acute stress. Examples of acute stressors include Fight with a friend, Exam's result or getting flat tire. Usually, acute stress can end when a problem ends. Some stressors continue for a long time. This is called chronic stress. Examples of chronic stressors include raising a child, lack of financial troubles.

Stress is your body's response to a change or any difficult situation. It is a completely natural response. Every day people experience events or a demand which needs special attention to it. Some are dangerous or threatening and need immediate, attention, like when you are almost hit by a vehicle. Major changes in life like getting married or moving can be stressful, too. We can't escape stress; it is a part of this competitive life. Individuals must figure out their ways to cope stress or to deal with it. Knowing how to deal with stress or these demands helps you prepare for anything that comes your way. In today's competitive world every student will feel the effect of stress at some point of their life. Every student has different threshold and different mindset, and this is the reason some students feel more stressed out in

comparison to the others, some students handle the stress more proficiently than others, but no one can completely escape stress from their lives. Thus, stress is an inevitable phenomenon in all aspects of human life. It is the body's non-specific response or reaction to demands made on it, or too disturbing events in the environment. It is a process by which we experience and cope with different environmental threatening challenges. It can be explained in terms of sadness, worries, tension, frustration which leads to depression which is temporary or may last for long. The presence of stress depends on the presence of the stressor. Feng (1992) and Volpe (2000) defined stressor as anything that challenges an individual's adaptability or stimulates an individual's body or mentality. The human body's response to stress is also called the fight-or-flight response. In this response your body prepares to defend you or run away from any given stressful situation. Hormones play a vital role in preparing person for this stress response.

Studying in a professional college is one of the most stressful experiences of life as it brings new challenges for the students, and it is characterized by quite a bit of change in student's mindset and lifestyles. Physiotherapy training in which both clinical and academics are involved for a span of four and half years is identified as full of stress, and it is also observed that students undergo tremendous stress during various years of training. In fact, the student undergoes many different stressful events such as, changes in friendships, staying away from their home and family.⁵ In addition, studying physiotherapy itself, seem to be stressful due to their clinical trainings where students have to do communication with patients, intensive curriculum or vastness of syllabus and academic demands, including night awakenings for shifts and for exam preparations.^{6,7,8} Studies have shown that stress plays a major role in every undergraduate student's life regarding behaviour, family, relationship, academics and social aspects of his or her life¹¹. Two considered sources of stress (university exams and intensive syllabus) can lead to lots of existing stress-causing factors or "stressors". Most of these stressors can be categorized into three main areas including academic pressure, social issues, and financial problems.^{9,10} A study conducted by Shreeram Reddy and coauthors 2007 revealed that most common sources of stress were high expectations from



parents, the vastness of the course, Teeming lecture halls, and dissatisfaction with class lectures.

In these four years and six months of program students must make numerous adjustments throughout the course. For many students, first year brings changes of environment along with the realization that it is impossible to master education completely. This challenges many students' previous self-image as successful and capable of "perfect mastery". As second- and third-year proceeds, students are busy with preclinical courses, which are very vast in content as students must cope with both clinical and regular lectures in everyday challenge. With a transition from preclinical to clinical training that is from final year to internship, which is of six months, students learn how to approach and handle patients which includes more responsibility for patient care. Students often feel they have scarce knowledge and skill to practice medical training. Although students are expected to be more and more proficient, they continue to feel unaware and anxious and because of they learn to cope with these feelings by appearing overconfident at times and by attempting to read "everything" and challenge everyone. Students also face other stressing factors like social, environmental, physical, and family problems, which may affect their academic performance and will ultimately lead to increase in stress among them. Overall Stress is the aspect which is majorly ignored or neglected by the professionals from the students' life.

Stress is a part of student's life, and they often find different coping strategies to mitigate its effects. Coping strategies are defined as any cognitive skills or behaviour efforts to manage the discrepancy occur between the internal and external environment. There are many various coping strategies used to deal with stress. Some strategies are healthy, and some can be unhealthy. Some of the healthy coping strategies include meditating, exercise, facing the stressful situation, etc. And examples for unhealthy coping strategies include smoking, getting angry, being rude to others. To find out the various coping strategies used by students to manage stress is checked using Adolescent Coping Orientation Problem Experiences (ACOPE Inventory. The perceived stress scale¹⁴ (PSS14) is a widely accepted stress assessing scale. It consists of 14 components and the Responses were scored from 0 to 4.

The Perceived Stress Scale (PSS) was developed to measure participants' experience of stress. In Vadodara, there are scarce studies done on Physiotherapy undergraduate students to find their stress levels and various coping strategies used by them. Hence, the purpose of the study was to assess the level of stress and coping strategies among undergraduate Physiotherapy students of Vadodara.

2. Objectives

Aim:

- To determine the prevalence of stress and its coping strategies among undergraduate Physiotherapy students of Vadodara.

Objectives:

- To find out the proportion of stress among undergraduate Physiotherapy students of Vadodara.
- To find out the coping strategies used by undergraduate Physiotherapy students of Vadodara.

3. Methods

Study site: Physiotherapy Colleges in Vadodara.

Study Population: Physiotherapy undergraduate students.

Sample Size: All undergraduate Physiotherapy students of Vadodara.

Sampling Method: Convenient Sampling

Study Duration: The study was conducted from February 2021 to January 2022

Study Design: A Cross-Sectional Study

Inclusion Criteria

- Physiotherapy Undergraduate Students
- Both Male and Female

Exclusion Criteria:

- Students who were not willing to participate.
- Students with a history of treatment for any chronic illness.
- Students with a history of treatment for any psychiatric illness at present.



Materials used:

- Consent Form
- Google form questionnaire PSS14
- Google form questionnaire ACOPE

Procedure:

•Application of the study was submitted to the ethical committee of BITS Institute of Physiotherapy. After obtaining Ethical approval, the study was undertaken on undergraduate Physiotherapy students of Vadodara. All Physiotherapy undergraduate students who were fulfilling the inclusion criteria were included in the study. Permissions were taken from the principals of all the respected Physiotherapy colleges in Vadodara and consent was obtained from the participants before the start of the study. Stress was assessed using “Perceived Stress Scale 14” (PSS14). And coping strategies were assessed using ACOPE inventory. Google form questionnaires were made for both consent form and outcome measures respectively. Students were made to fill the google form through a link shared via an online platform. Responses from the students were undisclosed and appropriate measures were taken to maintain the confidentiality of the participants response. After the responses were obtained from the participants the data was analysed and statistical analysis was done. Data was entered in Microsoft Excel worksheet 2007 and results were obtained.

Outcome Measures

•Perceived Stress Scale 14 (PSS14) - The Perceived Stress Scale (PSS) was developed to measure participant’s experience of stress during one month prior to the research. It is a self-administered questionnaire. Seven out of the fourteen items of PSS-14 are considered negative [1-3, 8, 11-12, 14] and the remaining seven as positive [4-7, 9-10, 13], representing perceived helplessness and self-efficacy, respectively. Responses were scored from 0 to 4 based on a five-point Likert-type scale for items never, almost never, sometimes, often and very often, and respectively. Therefore, scores for the 14-item form range from 0 to 56.

•Adolescent Coping Orientation for Problem Experiences Inventory (ACOPE) - ACOPE is a 54 item self-reporting questionnaire used to identify the coping strategies employed by adolescents. It is based on the

integrated coping theory and family stress theory to assess adolescent coping behaviours and style. The basic psychometric properties have already been established by Patterson JM and McCubbin HI.

Statistical Analysis

- Data was collected using standardized questionnaires.
- All collected forms were filled and access was restricted to researchers only.
- Data was entered in Microsoft Excel worksheet 2007.
- Data was cross-checked for any data entry errors.
- Descriptive statistics were presented as: Qualitative data as Frequency/Percentage, quantitative data as mean and standard deviation (SD) with 95% confidence interval (CI) for normative distribution or median and inter quartile range (IQR) for non-normative distribution of data.

4. Results

| Gender | No. of Students | % |
|--------------|-----------------|------------|
| Male | 43 | 18 |
| Female | 195 | 82 |
| Total | 238 | 100 |

Table 1 shows the gender distribution of participants. Out of 238 participants 43(18%) were male and 195(82%) were female participants.

| | Male | | Female | |
|----------------------------|------|-----|--------|-----|
| | n | % | n | % |
| 1st year | 6 | 14 | 26 | 13 |
| 2nd Year | 22 | 51 | 49 | 25 |
| 3rd Year | 10 | 23 | 49 | 25 |
| 4th Year | 2 | 5 | 42 | 22 |
| Internship | 3 | 7 | 29 | 15 |
| Total | 43 | 100 | 195 | 100 |

Table 2 shows gender distribution among students according to academic year. Out of 43 males, 6(14%) were from first year, 22(51%) were from second year, 10(23%) were from third year, 2(5%) were from fourth year and 3(7%) were from internship. Out of 195 females, 26(13%) were from first year, 49(25%) were from second year, 49(25%) were from third year, 42(22%) were from fourth year and 29(15%) were from



internship.

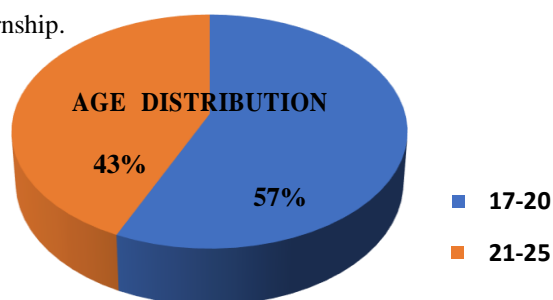


Figure 1 shows that 57% of students belonged to the age group of 17-20 years and 43% of students belonged to the age group of 21-25 years.

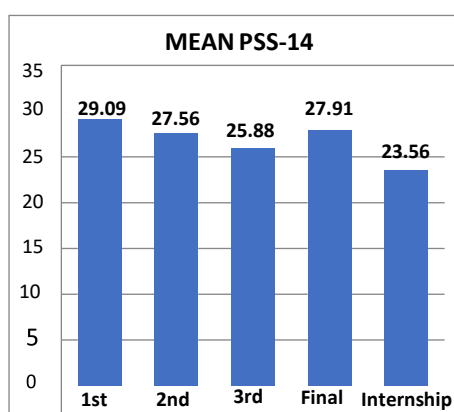


Figure 2 shows the mean PSS-14 score according to academic year. Mean PSS-14 score for 1st year was 29.09, 2nd year was 27.56, 3rd year was 25.88, 4th year was 27.91 and internship was 23.56.

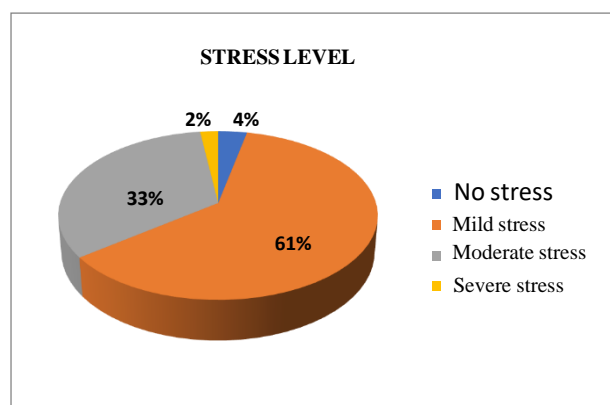


Figure 3 shows that 4% students were having no stress, 61% students were having mild stress, 33% students were having moderate stress, and 2% students were having severe stress.

| Year | No Stress (n) | Mild Stress (n) | Moderate Stress (n) | Severe Stress (n) | p-value | Chi-Square Value | Degree of Freedom |
|-----------------|---------------|-----------------|---------------------|-------------------|---------|------------------|-------------------|
| 1 st | 0 | 18 | 14 | 0 | 0.04 | 21.29 | 12 |
| 2 nd | 4 | 38 | 26 | 3 | | | |
| 3 rd | 0 | 43 | 14 | 2 | | | |
| 4 th | 1 | 24 | 19 | 0 | | | |
| Internship | 3 | 23 | 6 | 0 | | | |

Table 3 shows the association between stress level and academic year. P-value was found to be 0.04 using chi-square test which is considered significant with chi-square value being 21.29.

| Items | Never (n) % | Almost Never (n) % | Sometimes (n) % | Fairly Often (n) % | Very Often (n) % |
|---|-------------|--------------------|-----------------|--------------------|------------------|
| Being upset that happened unexpectedly | 36 (15.1) | 31 (13) | 124 (52.1) | 21 (8.8) | 26 (10.9) |
| Feeling of unable to control important things in life | 46 (19.3) | 30 (12.6) | 110 (46.2) | 34 (14.3) | 18 (7.6) |
| Feeling nervous and "stressed" | 26 (10.9) | 30 (12.6) | 97 (40.8) | 50 (21) | 35 (14.7) |
| Able to deal successfully with day-to-day problems and annoyances | 36 (15.1) | 37 (15.5) | 94 (39.5) | 46 (19.3) | 25 (10.5) |
| Feeling effectively coping with important changes that were occurring in life | 30 (12.6) | 29 (12.2) | 95 (39.9) | 46 (19.3) | 38 (16) |
| Feeling confident about ability to handle personal problems. | 10 (4.2) | 20 (8.4) | 89 (37.4) | 56 (23.5) | 63 (26.5) |



| | | | | | |
|--|--------------|--------------|---------------|--------------|--------------|
| Feeling that the things were going according to own way | 28 (11.8) | 37 (15.5) | 111 (46.6) | 45 (18.9) | 17 (7.1) |
| Feeling unable to cope with all things that should be do | 40 (16.8) | 37 (15.5) | 110 (46.2) | 37 (15.5) | 14 (5.9) |
| Able to control irritation in life | 19 (8) | 19 (8) | 111 (46.6) | 66 (27.7) | 23 (9.7) |
| Feeling on top of things | 35 (14.7) | 38 (16) | 113 (47.5) | 34 (14.3) | 18 (7.6) |
| Being angered because things were happening outside of control | 22 (9.2) | 39 (16.4) | 102 (42.9) | 41 (17.2) | 34 (14.3) |
| Thinking about the things that to be accomplished | 18 (7.6) | 22 (9.2) | 98 (41.2) | 57 (23.9) | 43 (18.1) |
| Able to control the way of spending time | 18 (7.6) | 30 (12.6) | 118 (49.6) | 43 (18.1) | 29 (12.2) |
| Feeling that difficulties were piling up so high that they could not be overcome | 44 (18.5) | 57 (23.9) | 88 (37) | 25 (10.5) | 24 (10.1) |

Table 4 shows that majority of the students reported that sometimes during the last month, they remain upset (52.1%), unable to control important things of life (46.2%), felt nervous or stressed (40.8%), could not cope up with the things (46.2%), exhibit anger (42.9%) and thought about the accomplished things (41.2%). It was further found that the students reported that sometimes during the last month, they use coping strategies to overcome stress (39.9%), control irritation (46.6%), feel that thing are going their way (46.6%), and they were on the top of the thing (47.5%) and able to control the way they spent their time (49.6%).

| Items | Never n (%) | Hardly n (%) | Sometimes n (%) | Often n (%) | Most of the time n (%) |
|--|----------------|-----------------|--------------------|----------------|---------------------------|
| Go along with parent's requests and rules | 20 (8.4) | 21 (8.8) | 65 (27.3) | 41 (17.2) | 91 (38.2) |
| Read | 40 (16.8) | 27 (11.3) | 88 (37) | 44 (18.5) | 39 (16.4) |
| Try to be funny and make light of it all | 14 (5.9) | 24 (10.1) | 80 (33.6) | 53 (22.3) | 67 (28.2) |
| Apologize to people | 24 (10.1) | 23 (9.7) | 81 (34) | 58 (24.4) | 52 (21.8) |
| Listen to music-stereo, radio | 7 (2.9) | 7 (2.9) | 43 (18.1) | 46 (19.3) | 135 (56.7) |
| Talk to teacher or counsellor | 128 (53.8) | 48 (20.2) | 43 (18.1) | 12 (5) | 7 (2.9) |
| Eat food | 16 (6.7) | 22 (9.2) | 80 (33.6) | 58 (24.4) | 62 (26.1) |
| Try to stay away from home | 100 (42) | 31 (13) | 47 (19.7) | 29 (12.2) | 31 (13) |
| Use drugs prescribed by doctor | 176 (73.9) | 19 (8) | 21 (8.8) | 9 (3.8) | 13 (5.5) |
| Get more involved in school activities | 37 (15.5) | 32 (13.4) | 103 (43.3) | 31 (13) | 35 (14.7) |
| Go shopping | 46 (19.3) | 42 (17.6) | 80 (33.6) | 31 (13) | 39 (16.4) |
| Try to reason with parents and talk things out | 37 (15.5) | 29 (12.2) | 98 (41.2) | 35 (14.7) | 39 (16.4) |
| Try to improve yourself | 17 (7.1) | 17 (7.1) | 75 (31.5) | 61 (25.6) | 68 (28.6) |
| Cry | 30 (12.6) | 40 (16.8) | 81 (34) | 37 (15.5) | 50 (21) |
| Try to think of good things | 5 (2.1) | 20 (8.4) | 79 (33.2) | 60 (25.2) | 74 (31.1) |
| Be with boyfriend or girlfriend | 149 (62.6) | 23 (9.7) | 44 (18.5) | 14 (5.9) | 8 (3.4) |
| Ride around in car | 80 (33.6) | 54 (22.7) | 70 (29.4) | 18 (7.6) | 16 (6.7) |
| Say nice things | 25 (10.5) | 38 (16) | 91 (38.2) | 45 (18.9) | 39 (16.4) |



| | | | | | |
|---|---------------|--------------|---------------|--------------|--------------|
| Get angry and yell at people | 49 (20.6) | 59 (24.8) | 81 (34) | 32 (13.4) | 17 (7.1) |
| Joke and keep a sense of humour | 28 (11.8) | 44 (18.5) | 78 (32.8) | 42 (17.6) | 46 (19.3) |
| Talk to minister/priest/rabbi | 168 (70.6) | 22 (9.2) | 35 (14.7) | 11 (4.6) | 2 (0.8) |
| Let off steam by complaining to family members | 82 (34.5) | 50 (21) | 74 (31.1) | 24 (10.1) | 8 (3.4) |
| Go to church | 137 (57.6) | 31 (13) | 47 (19.7) | 13 (5.5) | 10 (4.2) |
| Use drugs | 196 (82.4) | 16 (6.7) | 21 (8.8) | 5 (2.1) | 0 |
| Organize your life | 13 (5.5) | 26 (10.9) | 100 (42) | 63 (26.5) | 36 (15.1) |
| Swear | 65 (27.3) | 48 (20.2) | 83 (34.9) | 27 (11.3) | 15 (6.3) |
| Work hard on schoolwork | 22 (9.2) | 25 (10.5) | 83 (34.9) | 64 (26.9) | 44 (18.5) |
| Blame others for what's going on | 121 (50.8) | 47 (19.7) | 49 (20.6) | 18 (7.6) | 3 (1.3) |
| Be close with someone you care about | 11 (4.6) | 17 (7.1) | 75 (31.5) | 58 (24.4) | 77 (32.4) |
| Try to help other people | 5 (2.1) | 16 (6.7) | 76 (31.9) | 68 (28.6) | 73 (30.7) |
| Talk to your mother about what bothers you | 35 (14.7) | 30 (12.6) | 72 (30.3) | 37 (15.5) | 64 (26.9) |
| Try your own, to figure out how to deal with problems | 10 (4.2) | 11(4.6) | 65 (27.3) | 61 (25.6) | 91 (38.2) |
| Work on hobby you have | 23 (9.7) | 28 (11.8) | 102 (42.9) | 37 (15.5) | 48 (20.2) |
| Get professional counselling | 170 (71.4) | 15 (6.3) | 37 (15.5) | 10 (4.2) | 6 (2.5) |
| Try to keep up friendships or make new friends | 21 (8.8) | 18 (7.6) | 91 (38.2) | 62 (26.1) | 46 (19.3) |
| Tell yourself the problem(s) is not important | 20 (8.4) | 40 (16.8) | 95 (39.9) | 42 (17.6) | 41 (17.2) |
| Go to movie | 46 (19.3) | 55 (23.1) | 95 (39.9) | 27 (11.3) | 15 (6.3) |

| | | | | | |
|--|---------------|--------------|--------------|--------------|--------------|
| Daydream about how you would like things to be | 16 (6.7) | 26 (10.9) | 94 (39.5) | 51 (21.4) | 51 (21.4) |
| Talk to brother or sister about how you feel | 65 (27.3) | 45 (18.9) | 65 (27.3) | 32 (13.4) | 31 (13) |
| Get a job or work harder | 67 (28.2) | 39 (16.4) | 79 (33.2) | 40 (16.8) | 13 (5.5) |
| Do things with your family | 15 (6.3) | 24 (10.1) | 99 (41.6) | 43 (18.1) | 57 (23.9) |
| Smoke | 220 (92.4) | 6 (2.5) | 6 (2.5) | 2 (0.8) | 4 (1.7) |
| Watch TV | 26 (10.9) | 50 (21) | 87 (36.6) | 46 (19.3) | 29 (12.2) |
| Pray | 20 (8.4) | 24 (10.1) | 67 (28.2) | 53 (22.3) | 74 (31.1) |
| Try to see good thing in difficult situation | 9 (3.8) | 15 (6.3) | 77 (32.4) | 84 (35.3) | 53 (22.3) |
| Drink beer, wine, liquor | 218 (91.6) | 4 (1.7) | 11 (4.6) | 2 (0.8) | 3 (1.3) |
| Try to make your own decisions | 11 (4.6) | 22 (9.2) | 65 (27.3) | 74 (31.1) | 66 (27.7) |
| Sleep | 8 (3.4) | 11 (4.6) | 65 (27.3) | 69 (29) | 85 (35.7) |
| Say mean things to people | 80 (33.6) | 52 (21.8) | 72 (30.3) | 23 (9.7) | 11 (4.6) |
| Talk to your father about what bothers you | 70 (29.4) | 61 (25.6) | 58 (24.4) | 22 (9.2) | 27 (11.3) |
| Let off steam by complaining to your friends | 52 (21.8) | 51 (21.4) | 89 (37.4) | 30 (12.6) | 16 (6.7) |
| Talk to a friend about how you feel | 14 (5.9) | 34 (14.3) | 89 (37.4) | 49 (20.6) | 52 (21.8) |
| Play video games | 90 (37.8) | 45 (18.9) | 71 (29.8) | 16 (6.7) | 16 (6.7) |
| Do a strenuous physical activity | 44 (18.5) | 48 (20.2) | 91 (38.2) | 28 (11.8) | 27 (11.3) |

Table 5: Frequency of coping strategies as measured on ACOPE scale used by physiotherapy students.



5. Discussion

In this study, stress was assessed using Perceived Stress Scale 14 (PSS 14) and coping strategies were assessed using Adolescent Coping Orientation for Problem Experiences Inventory (ACOPE).

In this study the gender distribution of participants were total 238 participants in which 43(18%) were male and 195(82%) were female participants.

The distribution of students based on gender and according to academic year were 43 males, 6(14%) were from first year, 22(51%) were from second year, 10(23%) were from third year, 2(5%) were from fourth year and 3(7%) were from internship. Out of 195 females, 26(13%) were from first year, 49(25%) were from second year, 49(25%) were from third year, 42(22%) were from fourth year and 29(15%) were from internship.

Age distribution among the students showed that 57% students belonged to age group of 17-20 years and 43% students belonged to age group of 21-25 years.

Stress Among Undergraduate Physiotherapy students using PSS 14

In our study we found out that out of 238 students, 8 students were having no stress, 146 students were having mild stress, 79 students were having moderate stress, and 5 students were having severe stress i.e. 4% students were having no stress, 61% students were having mild stress, 33% students were having moderate stress, and 2% students were having severe stress.

The study showed that in First year students 18 students were having mild stress and 14 students were having moderate stress. In Second year, 4 students were having no stress, 38 were having mild stress, 26 were having moderate stress and 3 students were having severe stress. In Third year, 43 students were having mild stress, 14 students were having moderate stress, and 2 students were having severe stress. In Fourth year, 1 student was having no stress, 24 students were having mild stress while 19 students were having moderate stress. In Internship 3 students have no stress, 23 were having mild stress and 6 were having moderate stress.

Mean value of PSS-14 score according to academic year for 1st year was 29.09, 2nd year was 27.56, 3rd year was 25.88, 4th year was 27.91 and internship was 23.56.

Literatures suggest that Stress among physiotherapy students may result in physical illness, psychological distress, behavioural problems, and poor academic performance. In one of the studies, it was seen that the level of psychological morbidity of physiotherapy students was not as high as generally reported in medical students.

In one study it showed that out of all the academic year, third year showed more stress compared to any other year in undergraduate Physiotherapy students.

Coping Strategies among Undergraduate Physiotherapy Students using ACOPE Inventory

The study showed, students using various coping strategies to cope up with stress during the course.

In the area of ventilating feelings, most students reported never "saying mean things to people" (33.6%), "swearing" has been done sometimes (34.9%) by the students, and some reported "crying" (34.3%) sometimes.

In the area of seeking diversions, most students reported often or always "listening to music-stereo" (56.7%), while most reported "going to a movie" (39.9%) and "playing video games" (37.8%) seldom or never.

In the area of relaxing, the majority reported "daydreaming" (39.5%) sometimes, while most reported "working on a hobby" (42.9%) sometimes.

In the area of self-reliance, the majority reported "trying to make their own decisions" (31.1%), and "trying to think of good things" (33.2%) sometimes, while most reported "getting a job or working harder" (33.2%) sometimes.

In the area of developing social support, the majority reported "apologizing to people" (34%) sometimes, "trying to help other people solve their problems" (31.9%) sometimes and "trying to keep up friendships or make new friends" (38.2%) sometimes, whereas most said that they seldom or never "blamed others for what is going on" (50.8%).

In the area of solving family problems, most students reported sometimes "trying to reason with parents and talk things out, compromise" (41.2%) and "going along with parent's requests and rules" (38.2%) sometimes,



while most said they seldom or never "talked to their own fathers about what bothers them" (29.4%)

In the area of avoiding, almost all students said that they never did "smoking" (92.4%), Never using "drugs prescribed by a doctor" (73.9%) and trying to "stay away from home" (42%) were used never, whereas (35.3%) reported often "trying to see the good things".

In the area of seeking spiritual support, the majority reported often or always "praying" (31.1%), while most said that "talking to a minister/priest/rabbi" (70.6%) and "going to a temple/church" (57.6%) were used seldom or never.

In the area of investing in close friends, a majority reported that "being close with someone you care about" (32.4%) was used often or always.

In the area of seeking professional support, the majority reported that "getting professional counselling" (71.4%) and "talking to a teacher or counsellor at school about what bothers them" (53.8%) were used seldom or never.

In the area of engaging in demanding activity, most students reported that "trying, on their own, to figure out how to deal with problems or tension" (38.2%) and "trying to improve oneself" (31.5%) were used often or always, while "performing strenuous physical activity" (38.2%) was used sometimes.

In the area of being humorous, a majority reported that "joking and keeping a sense of humour" (32.8%) was used sometimes.

Some other coping strategies used by students; "Reading" is preferred sometimes (37%); "Eating food" is done sometimes (33.6%); "Go shopping" sometimes (33.6%); "organize your life" was preferred sometimes (42%).

Limitations of the study follow, the study conducted was a cross sectional study and the findings are based on the self-reported information. Probability of prejudice may occur as the ability of the students to comprehend the questionnaire may differ.

Future Studies:

In future studies, a study could be done in comparison to other paramedical courses or medical courses to find out the level of stress among the undergraduate students between them.

Conclusion:

The study concluded the general impression that there is a considerable amount of stress among undergraduate Physiotherapy students of Vadodara. The results highlighted that, mild level of stress existed in the students with academic and personal issues being the matter of concern. Most of the students have employed mostly the positive but also negative strategies to cope up with the stress. Training in stress management as a part of the curriculum can be of use.

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