

**Comparative Study**

## **Comparative Study of Depression, Anxiety and Stress Across Students of Various Academic Streams**

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### **ABSTRACT**

Anxiety and depression are very common mental health disorders affecting a significant portion of the global population, with notable impacts on individuals' well-being. Present research paper aims to investigate the levels of depression, anxiety, and stress among university students, with a specific focus on the Science, Commerce, and Arts streams. In this paper, the researcher examined the Depression, Anxiety and Stress Scale (DASS-42) among randomly selected students, with each respondent (based on their experience in the last one week) choosing between each score (0, 1, 2, 3) for depression, anxiety, and stress. The respondents include 134 responses out of which 66 males and 68 female students. 47 respondents from Commerce background, 45 respondents from arts background and 42 respondents from science background were included. The study utilized the Depression Anxiety Stress Scales (DASS-42) to assess these mental health conditions. It is a standardized tool developed by Lovibond and Lovibond (1997). The results revealed varying levels of severity across the three streams, with an alarming prevalence of "Extremely severe" anxiety among university students. Additionally, the Commerce stream exhibited a notable proportion of students experiencing "Moderate" depression and stress. Female students reported higher levels of anxiety, particularly in the "Extremely severe" category.

**Keywords:** *Depression, Anxiety, Stress, Various Academic Streams*

**A**nxiety and depression are disorders that affect several people worldwide, and around 1 in 15 individuals experience either one of them or all, each year. These three conditions have a lifetime prevalence of 13%. Depression along with mental health issues ranks among the top 20 causes of disability, globally. Additionally, a considerable portion of children worldwide face some form of depression, anxiety or stress.

Depression, anxiety, and stress are the conditions that can impact individuals from all walks of life. However, students pursuing education in fields such as Science, Commerce, and Arts are particularly susceptible to these challenges concerning their well-being. The academic demands combined with societal expectations often create pressure on students leading to the development of mental health issues. The transition from school to college or university is a phase, in a student's life as it introduces new challenges and pressures due to social

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transitions and changes. Also, when there is transition from school to college, there is a significant increase in level of education. Students might feel pressure in this part of their lives as they have responsibility of their own careers they have chosen, either by choice or any other reason, leading to mental health problem. In education settings, students encounter numerous challenges that can significantly impact their overall mental well-being.

### **1. Depression**

We can define depression as a mental health disorder with elements of sorrow, hopelessness, or no interest and feeling joy in normal things. Symptoms of depression may affect one's social and school life. It impairs the ability to focus, concentrate, sleep, and make decisions. Depression is classified as a mental illness which includes symptoms such as being sad or hopeless, as well as having no interest or pleasure in things previously enjoyed. It can influence an individual's thought, feelings, actions resulting in various physical and mental conditions.

Depression should be viewed as more than just feeling low or sad. It may have a huge effect on somebody's functioning at home or work, and overall well being. It can vary in severity, from mild to severe. Sometimes it can also occur in isolation or can be recurring.

"Depression" which is also known as silent epidemic is one among other complex mental health conditions plaguing million of people all over the world. Depression may affect almost everyone but it is still little understood and looked down upon by a majority of people making many people shy off medical assistance for fear of being labelled 'depressed'.

Depression, often referred to as the "common cold" of mental health, which is a very complex and extensive illness that significantly affects an individual, family, and society in general. Beyond simple sadness and temporary distress, depression encompasses an ongoing feeling of deep dissatisfaction which touches every aspect of one's existence. Depression knows no difference between gender, age, race or class, hence it is an issue that affects many people globally.

Depression involves profound sadness, lack of hope, and little or no interest or pleasure in previously enjoyed activities. Depressive symptoms such as a lack of appetite, difficulty sleeping or maintaining energy level, and loss in focus are usually associated with other bodily ailments that result from despair, including heartache, headache, muscle pain and general weakness. Depression is a disorder that if left untreated can affect every aspect of one's life ranging from emotional state to health relations as well as quality of life altogether.

### **2. Anxiety**

Anxiety is an aspect common with all people of different backgrounds, regardless of their identities. It is a mixed up kind of emotion that makes us uncomfortable, anxious and at most times downright scared!

Anxiety is a normal reaction to the difficulties that come our way in life but it may also become overpowering and bothersome.

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Anxiety works as an inner alarm system responding to stress, danger, and perceptions of dangers. That kind of restlessness, nervousness or anxiety about what could happen next. However, in some circumstances, anxiety may serve a purposeful role by preparing us for hardships or encounters with risks. However, extreme, overwhelming, and chronic anxiety can develop into anxiety disorders that are mental illnesses requiring medical care.

Anxiety tends to be emotional as it involves feelings but can also be physical. It may result in an emotional rollercoaster that may include being scared, jittery, irritable, having a feeling of insecurity. It manifests physically by signs like pounding heart, tense muscles, perspiration, trembling, indigestion, amongst others, and mentally with loss of concentration.

Keep in mind, anxiety runs across a scale. Although transient, non-severe anxiety occurs in everyone's life, severe and long-lasting anxiety disrupts daily activities and general health. These disorders are treated with varying approaches that include therapy, medicines, changes in one's lifestyle, and breathing techniques.

Nowadays, more people are suffering with anxiety as it becomes a growing problem in our fast-moving world. This is a broad-based mental health illness including issues like day-to-day concerns that we can deal with to serious conditions that can turn life around. For understanding anxiety, it matters not only for an individual experiencing anxiety but also for society in general since it can really affect the health and personal relations, affecting the quality of life.

### **3.Stress**

We all come across stress irrespective of background, age and religion. This is how we react towards the problems, internal or external of life with our bodies and minds. Positively stress also acts as a positive force pushing us to achieve the greatest. However, if it stays longer, it becomes a burden that has health implications in terms of mental and physical state.

View stress as a part of the natural survival mechanism you were born with. Whenever your brain identifies any possible danger or trouble, it activates the "fight or flight" reflex that seeks to assist in the resolution of the problem. This results in release of stress hormones such as adrenaline and cortisol that can cause increased heart rate, high alertness and energy boost. This is meant to help you manage this apparent threat better. There are several scenarios where stress may work as a catalyst in stimulating or giving your brain an impetus, depending on the situation.

The problem arises when however you begin experiencing persistent stress that starts overshadowing your daily life. Nevertheless, chronic stress is not desirable — it may even adversely affect one's physiological and emotional well-being. This chronic stress may lead to diverse illnesses such as hypertension, cardiac disorders, psychological disorders (anxiety, depression), etc. Chronic stress is also harmful as it erodes health and quality of life.

Researchers in fields like psychology, medicine or neurosciences have investigated the details of stress with big consequences for people and populations. It is crucial as it guides our ways of coping during stressful moments, and helps in developing resilience when faced

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with challenges. However, a proper understanding of stress gives us better mechanisms of mitigating its impact and boosting our resilience during trying moments.

Of course, stress is a normal response to difficult situations, but if this stress lasts continuously and goes beyond one's tolerance limits, it leads to degradation of both mental and physical well-being. Students often find themselves in situations of academic pressure like exams, assignment, and their respective deadlines. Although some level of stress may be helpful, extreme stress results in anxiety and depression.

### LITERATURE REVIEW

**1. E Astutik, SK Sebayang, SI Puspikawati, TD Tama, DMSK Dewi (2020)**, researched "Depression, Anxiety, and Stress among Students in a Newly Established Remote University Campus in Indonesia". This research investigates the psychological wellbeing among the students in a recent remote university in Indonesia, such as depression, anxiousness, and stress. This study shows that the issues surrounding most of the students in these campuses tend to be similar. All first, second, and third years students, taking veterinary, public health, aquaculture and accounting courses at Banyuwangi campus joined this study. The study targeted students who had reached the third, fifth, and seventh semesters of their studies. Two hundred twenty-nine students took part in this research; which was higher than the minimum sample size of 120 with the allowance of a 25% buffer for possible non-participants with the computations involving 95% confidence interval, 80% In doing so, the researchers used the cluster sampling technique with each of the three-year being considered as a cluster. Using simple random sampling, they randomly selected students listed among registered students of each academic program by years and took part from every student's list. DASS 42 is a 42-item questionnaire used to assess levels of depression, anxiety, and stress. Scores of 0 (meaning not suitable at all), 1, 2 and 3 indicate no suitability, partial suitability, moderate suitability and strong suitability respectively for each question by students. In each scale (depression, anxiety, and stress) of the DASS- 42 questionnaire, the highest possible score is 42. The study revealed that 25.0% of students suffered from depression, 51.1% from anxiety, and 3 It is interesting to note that fifth-semester students were more likely to be depressed or stressed than their seventh-semester counterparts. These mental health concerns necessitate early provision of psychologic counseling during initiation and start-up of the new universities.

**2. Asif, S., Mudassar, A., Shahzad, T. Z., Raouf, M., & Pervaiz, T. (2020)** "The Frequency of depression, anxiety, and stress among university students". This paper sought to examine the extent of depression, anxiety, and stress that were experienced by the university students residing in Sialkot, Pakistan. Using a survey research method, researchers randomly selected 500 students from three universities in Sialkot. The study was conducted for 5 months beginning on February until June 2019 at GC women's university in Sialkot and involved the use of demographic questionnaire and DASS-21 (Depression, anxiety, stress scale).

Data was scored following standard procedures for each category and analysed using SPSS 21, frequency distribution techniques. The average scores for depression, anxiety, and stress were M=15.08, M=18.24, and M=19.02, respectively. The prevalence of depression, anxiety, and stress among university students was 75%, 88.4%, and 84.4%, respectively.

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Findings revealed that depression ranged from normal (25%) to mild (16%), moderate (35.8%), severe (14.6%), and extremely severe (8.6%). Anxiety ranged from normal (11.6%) to mild (4.4%), moderate (19.4%), severe (17.8%), and extremely severe (46.8%). Stress levels were categorized as normal (15.6%), mild (33.8%), moderate (35.4%), severe (13.2%), and extremely severe (2.8%).

**3. Shah, P., Sapkota, A., & Chhetri, A. (2021).** “Depression, Anxiety, and Stress among First-year Medical Students in a Tertiary Care Hospital: A Descriptive Cross-sectional Study”. This study aims at establishing cases of depression, anxiety, and stress among first year medical students. The research was descriptive cross-sectional study involving 91 students who were undertaking MBBS course at NMCTH, Kathmadu, Nepal. The students came from a tertiary care hospital where this study was conducted with DASS 42, and an additional questionnaires dealing with societal demographics and stressors related to these problems. In this study, two different sets of questionnaires were used.

The first questionnaire was self-interviewed concerning demography like age, sex, place of residence and the parents’ schooling. It also asked about stress causing factors such as high demand of life, academic pressure, relationship issues, and family conflicts. The second group of the questionnaire included DASS-42. The study showed that the general rate of depression, anxiety, and stress among the first-year medical students equaled 44%, 59.3%, and 45.1% correspondingly.

Of the hundred distributed questionnaire, ninety one was returned giving a response rate of ninety one percent. Fifty three and a half percent of the respondents were male as compared to forty six point two percent who were female. The mean age of the study’s participants was nineteen, ranging between seventeen and twenty-six years. As regards their dwelling place, 89 percent of students were in halls, while 11 percent lived elsewhere. It is worth noting that out of the total number of parents whose educational levels could be ascertained, only 14.5% were at most educated up to Grade 10 while 83.4% had higher education levels than grade Ten. Just like this, 33% of students’ mothers had education to grade 10 and 67% had the education above grade 10.

**4. Teh, C.K., Ngo, C.W., Zulkifli, R.A., Vellasa, R. and Suresh, K. (2015)** “Depression, Anxiety and Stress among Undergraduate Students: A Cross-Sectional Study”. This study aims at evaluating prevalence levels of depression, anxiety and stress in undergraduates in Malaysia. As a cross sectional survey, this study took place between September and October 2014 involving the undergraduates of Melaka Manipal Medical College (Melaka campus), Malaysia. Researchers administered the DASS 21 test, created by the Psychology Foundation of Australia, to screen for mental health problems among students. DASS 21 constitutes a 21-item self-report scale that assesses and evaluates the extent to which individuals are prone to suffering from numerous symptomatic manifestations such as those often linked to clinical depression, state anxiety, and stress.

The self-administered questionnaires were divided into three sections: demographic information, income information, and DASS-21 questions. The demographic data consisted of eight personal data questions comprising age, sex, race, major, living arrangement, marital status, grades, and social life status. The socioeconomic information pertaining to parent’s marital status and the total household income per month.

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Findings showed that a total of 30.7% and 16.6% of these students suffered with moderately severe to extreme depression, and mild stress on average, respectively. The rates stood at 28%, 45% and 17% respectively, which were even lower than those previously obtained from a cross-sectional study carried out amongst Malayan university students where 37.2% was recorded for depression, 63.0%.

Finally, depression, anxiety, and stress cause adverse effects on individuals and society in general. In effect, these outcomes may culminate into unintended consequences like dropping off academic studies, increased tendency towards suicide ideas, marriage/relationship problems, poor performance capability, fatigue, and health care issues. As a result, there is a dire need for a higher-level focus on psychosocial needs of undergraduates, in order to improve their overall life satisfaction.

**5. Adetunji, A.A. and Ademuyiwa, J.A. (2019)** “Assessing DASS-42 Models among Polytechnic Staff”. The purpose of this exercise has been to get reliable and subjective data on the intensity of depression, anxiety, and stress that characterize workers of technical university. Research makes use of DASS 42 and socio-demographic indicators including gender, schooling, unit and age. In order to ensure accuracy, this study used a random sampling technique that involved staff from the Federal Polytechnic, Ile-Oluji in Nigeria. Every respondent chooses a score (0–3) for depression, anxiety, and stress from his/her past week’s experiences.

The survey includes 126 male and 74 female staff members, with an age distribution as follows: There are 34 people from 20-29, 113 of 30-39 years, 40 from 40-49 years and 13 at 50 and above. There are 47 academic staff, 113 seniors administrative staff, and 40 junior administrative staff among the staff.

As such, the DASS serves as a measurement tool. It should not be used in diagnostic purposes and it is no substitute of an all-encompassing bio-psycho-social assessment instrument. Depression subscale measures hopelessness, devaluation of existence, no interest or activity, self defamation, and inaction. The stress subscale consists of dimensions such as difficulties of relaxing, easy annoyance, chronic nonspecific arousal state, and impatience. Assessments include situational anxiety, physiological arousal, muscle tension, and immediate emotional states.

The senior administrative staff exhibits less depression, stress, and anxiousness when compared to junior administrative staff at the polytechnic”. The highest level of stress and anxiety is found among senior administrative staff while academic staff have the lowest level of depression. The findings also show disparities in depression and anxiety cases among staffs from various groups and the disparities in pressure levels between the staff members were not statistically notable.

Though they are relatively insignificant, depression, anxiety, and stress levels are high among staff members of low educational status. Stress level of staff with only primary education differs significantly from that of the rest of staff with other qualification. However, it must be noted that although no important variation exists in terms of gender, males are somewhat more stressed and depressed than females; while females suffer increased feelings of fear.

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The research reveals that depression, anxiety, and stress decline with age, too. It may result from increased happiness with life, coupled with better tolerance for life circumstances among old people.

**6. Wong SS, Wong CC, Ng KW, Bostanudin MF, Tan SF (2023).** “Depression, anxiety, and stress among university students in Selangor, Malaysia during COVID-19 pandemics and their associated factors”. This research aims at examining how COVID-19 affected the learning experiences of Malaysian students. The purpose of this study is to establish the levels of depression, anxiety and stress in this category of student and causes of the stated problems. This research involved a cross-sectional, online based survey conducted through convenience sampling. Questions aimed at gathering information on the socio-demographics, lifestyles as well as the impact of Coronavirus were asked during data collection. In addition, they used DASS- 21 as a tool for evaluating their mental health.

Overall, a total of 388 students participated in this study, among them 72.4% female and also 81.7% for bachelors’ degrees programmes. University students had prevalence rate of moderate to severe depressive symptoms, anxiety, and stress as 53.9%, 66.2%, and 44.6% respectively. University students suffering mental health burden because of COVID-19 crisis is depicted here, as well as the need for public education and psychological support strategies for them.

**7. Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015).** “The prevalence and correlates of depression, anxiety, and stress in a sample of college students”. This study aimed at identifying causes of depression, anxiety and stress in university students. At last, the sample comprised of 374 undergraduate students aged between 18 and 24 years old who were attending Franciscan University, located in Ohio. The study involved questionnaire administration, in which participants filled out a form that contained questions about background information, a rating section on how concerned they were about the usual difficulties such as studies, families and sleeping problems and the DASS21, which is a twenty one item questionnaire. For this study, we utilized the DASS 21 which assessed Depression, Anxiety, and Stress (Lovibond & Lovibond, 2004; Henry & Crawford, 2005).

*To help identify the characteristics associated with high scores on each DASS scale, we defined them as follows:*

- **Depression:** Hopelessness, sadness, belief that life is devoid of meaning or worth, pessimism, inability to feel happy or contentment, unconcern or indifference to normal activities, slowing down, failure to initiate.
- **Anxiety:** Anxiety, tremors, dryness, difficulty in breathing, palpitations, sweaty hands, fear of failure, loss of control.
- **Stress:** Over aroused, tense, cannot relax, touchy, easily annoyed, easily irritated, jumpy, restless, quick, and sensitive, intolerance for delays or disturbances in plans.

According to the outcomes it was found out that the best three worries of respondents were regarding with grades, high achievement stress and future occupation. The most distressed, anxious, and depressed students were transfers, seniors, and those who lived away from campus. Due to possibility of mental illness interfering with the progression of college students, college has to keep on evaluating the condition of mind of its students and make therapies to suit each student’s problem separately.

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**8. Basudan, S., Binanzan, N., & Alhassan, A. (2017).** “Depression, anxiety and stress in dental students”. A cross-sectional study on the prevalence and severity of depression, anxiety, and stress among undergraduate dental students in the college of dentistry, riyadh city, saudi arabia was conducted between november 2014 and december 2014. Two hundred and seventy-seven out of 289 students responded, representing 96%. In total, there were 247 participants in the selected sample. To this end they were administered a DASS-21 questionnaire which is a validated depression anxiety and stress scale. Secondly, the questionnaire also gathered data on participants’ demographics and coping mechanisms.

All undergraduate dental students could participate in the study with exception of first year students which had been excluded. Furthermore, those students who were receiving psychological management for depression such as cognitive treatment/medication were also excluded to avoid bias in student’s responses due to continuous treatment. The findings revealed high levels of depression, anxiety, and stress in 55.9%, 66.8% and 54.7% of the sampled students, respectively.

Multiple linear regression analysis determined predictors, which showed significant contribution of other factors. The factors mentioned were gender, satisfaction with faculty relationships, satisfaction with peer relationships and dentistry being the first choice of a study field. These predictors’ relationships and strength were measured by the standardized coefficients within each subscale of the DASS-21.

Coping strategies undertaken by students included reading, watching television and seeking emotional support from friends/peers. Depression, anxiety stress is common in dental students calls for support program for help the students cope with these psychological disorders.

**9. Taneja N.; Sachdeva S.; Dwivedi N. (2018).** “Assessment of Depression, Anxiety, and Stress among Medical Students Enrolled in a Medical College of New Delhi, India. . This research aimed at exploring the prevalence of depression, anxiety, and stress in medical students. A structured questionnaire instrument known as the Depression Anxiety Stress Scale (DASS-21) was administered in face-to-face interviews using a pretested instrument.’) We also recorded data on the socio-demographic profile of the pupils, their education standards and individual attributes. The response rate was 94% and 187 students participated in the study. Most of respondents were males accounting for 66%, while over half of the participant lived in hostels that is 65.8%.

Seven percent experienced parent conflict, fifteen stressed about the future, twenty two point nine complained about relations with family members, twenty two five disliked bodies as they appear and eighteen seven did not feel happy. Also, depression was evident in 32% of the students, while 40.1% demonstrated signs of anxiety; about 43.8%, on the other hand, showed signs of stress.

Students with history of medical conditions had higher levels of anxiety. There is also significant association between student stress and family chronic non-communicable disorder. On the other hand, students exhibits symptoms of depression if they have a family history of mental illness. The other factor for depression was having poor relationships with family. There was an inverse relationship between the student’s self-assessment of their



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ability cope with the medical syllabus and the likelihood that they would experience depression and anxiety.

For example, this study demonstrates that many medical students struggle with stress and depression calling for prompt interventions like supportive counseling tailored to individual needs.

**10.Banu, P., Deb, S., Vardhan, V., & Rao, T. (2015).** “Perceived academic stress of university students across gender, academic streams, semesters, and academic performance”. The purpose of this study was to explore the academic stress from the viewpoint of Pondicherry University students regarding gender, department, term, and performance. The study involved a total of 699 university students from three academic streams: Arts and humanities, science, and management. The study applied multi-staged clustered sampling for selection of subjects by way of self-administered questionnaires on academic stress and standardised psychological assessment tool.

Comparatively, more stress was reported by girls than boys in colleges and universities ( $p < .01$ ). The second finding indicates that students in the Humanities and Social Sciences fields experienced more academic stress compared to those in the Science and Management fields,  $p < .01$ ).

Thirdly, students showed higher stress levels during the Semester II ( $p < .01$ ). In fact, there was a relationship between the academic stress and improved academic performance among these students ( $p < .01$ ) Such findings are indicative that a mental health program in institutions should be offered to students, especially when stress is experienced due to high academic work. This can go a long way in assisting students manage academic pressures and finally do better at school.

### **METHODOLOGY**

#### ***Research Design***

It is a descriptive survey research design.

#### ***Objectives***

- To study the extent of depression, anxiety and stress among university students.
- To measure the level of depression among science, commerce, and arts students.
- To measure the level of depression in male and female students.
- To assess the level of anxiety among science, commerce, and arts students.
- To measure the level of anxiety in male and female students.
- To examine the level of stress among science, commerce, and arts students.
- To measure the level of stress in male and female students.

#### ***Hypothesis***

- There is a significant difference in the levels of depression among science, commerce, and arts students.
- There is a significant difference in the levels of anxiety among science, commerce, and arts students.
- There is a significant difference in the levels of stress among science, commerce, and arts students.

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### *Sample*

In this paper, the DASS-42 is examined among randomly selected students, with each respondent (based on their experience in the last one week) choosing between each score (0, 1, 2, 3) for depression, anxiety, and stress. The respondents include 134 responses out of which 66 males and 68 female students. 47 respondents from Commerce background, 45 respondents from arts background and 42 respondents from science background were included.

### *Procedure*

The DASS-42, a standardized scale developed by Lovibond and Lovibond (1995), was used in the present study for the convenience and outreach of the participants of the study. It was uploaded as WhatsApp, Facebook, and Instagram status and social networking sites. The help was rendered by Faculty, friends, and family members. Finally, the scoring was done and Google Docs rendered many graphs. The Graph suitable for the study is considered streamwise. Comparison of various streams was carried on through manual scoring in the end. Both results were entered to be analysed and displayed.

### *Measures*

The Depression Anxiety Stress Scales (DASS-42) allow an individual to assess how intense negative feelings are such as depression, anxiety, and even stress. The scale was mainly developed for measuring depression and anxiety on two different sub-scales for each of them with every question specifically created distinguishing between symptoms of depression and anxiety respectively. As a measure of accuracy, some unrelated items were also included as control measures for both depression and anxiety. Additionally, respondents should be more than 18 year-old while providing their answers that have come up since they suffered signs of depression, anxiety, and stress during the last week period. The second scale was designed by Lovibond, S.H and Lovibond, P.F (1995).

## RESULTS

*Table 1: Showing the levels of Depression, Anxiety, and Stress for overall university students N = 134*

Levels	DEPRESSION	ANXIETY	STRESS
Normal	<b>65</b>	55	61
Mild	15	16	<b>30</b>
Moderate	26	19	26
Severe	15	14	13
Extremely severe	13	<b>30</b>	04

### DEPRESSION

Normal > Moderate > Mild & Severe > Extremely severe

### ANXIETY

Normal > Extremely severe > Moderate > Mild > Severe

### STRESS

Normal > Mild > Moderate > Severe > Extremely Severe

This table shows the Levels of depression, anxiety, and stress among a total of 134 university students. Each of these mental health conditions has its data sorted in various levels of severity.

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For depression, 65 of the 134 university student fell under “Normal” which implies that no significance. Twenty-six students fell under the “moderate” level of depression, which makes it the second most frequent type. The least number of students is classified as “extremely severe” followed by “severe”, while “mild” comprises the highest number of students.

The “Normal” category has 55 students for anxiety. It is worth noting that more than thirty students are within the “Extremely Severe” grouping, which implies high anxiety levels. “Moderate” then comes after in the order of frequency. It is also succeeded by “Mild” and then “Severe.”

Most of the students fall under “Normal” category for stress and have normal or average stress levels whereas 61 students experience manageable stress. Moving down the line, “mild” is the second largest category, closely followed by “moderate”. It is not surprising either that there are many fewer students who experience “severe” level of stress while the last category with the least number of students who experience “extremely”.

The figure provides the severity ranges on each condition with “Normal”, the most common case for depressions and stresses, and “Extremely severe” whereby several learners fell into this category in anxiety, a situation that is frightening.

**Table 2: Showing the levels of Depression, Anxiety, and Stress for Science stream university students N=42**

Levels	DEPRESSION	ANXIETY	STRESS
Normal	21	19	18
Mild	6	6	12
Moderate	7	5	6
Severe	5	4	6
Extremely severe	3	8	0

Table above shows a sample of 42 science-stream university student on the different dimensions of depression, anxiety and stress. The majority of students represents “Normal” category for depression (21), anxiety (19) and stress (18) that is followed by mild for stress (12) moderate for depression (7) and severe for all three. For depression, “Extremely Severe” is the lowest with three cases while eight cases were found in “Extremely Severe” for anxiety.

**Table 3: Showing the levels of Depression, Anxiety, and Stress for Commerce stream university students N=47**

Levels	DEPRESSION	ANXIETY	STRESS
Normal	19	14	17
Mild	5	8	11
Moderate	14	4	13
Severe	5	8	4
Extremely severe	4	13	2

The above table represents the distribution of depression, anxiety, and stress levels among 47 university students in the Commerce stream. The majority of students fall within the

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"Normal" range for depression (19), anxiety (14), and stress (17). There is a majority of students with "Moderate" Depression (14) and Stress (13). However, a significant portion of students also experiences varying degrees of these mental health issues, with some exhibiting "Mild," "Moderate," "Severe," or "Extremely severe" levels. Notably, anxiety appears to have a broader range of severity, with a higher number of students falling into the "Extremely severe" anxiety (13) category.

**Table 4: Showing the levels of Depression, Anxiety, and Stress for Arts stream university students N=45**

Levels	DEPRESSION	ANXIETY	STRESS
Normal	25	23	26
Mild	4	2	7
Moderate	5	9	7
Severe	5	2	3
Extremely severe	6	9	2

The table above represents the distribution of depression, anxiety, and stress levels among a sample of 45 university students majoring in the Arts stream. The largest proportion of students falls within the "Normal" range for depression (25), anxiety (23), and stress (26), indicating overall good mental health. However, there are notable proportions in the "Mild," "Moderate," and "Severe" categories, particularly for anxiety. There are a high number of students suffering from "Moderate" and "Extremely Severe" Anxiety comparatively Depression and Stress.

**Table 5: Showing the levels of Depression, Anxiety, and Stress for Female Students N=68**

Levels	DEPRESSION	ANXIETY	STRESS
Normal	28	22	24
Mild	8	8	15
Moderate	14	12	16
Severe	10	7	10
Extremely severe	8	19	3

The above table shows distribution of depression anxiety stress levels out of a sample of 68 female pupils. More than half of students score "normal" on scales for depression (28), anxiety (22), and stress (23); around one-fifth score "mild" on stress (15). Most of these students with "Moderate" levels of depression (14), anxiety (12) and stress (16) also followed a significant percentage. Among a small group of students, "Severe" depression occurs in ten students, and "Extremely severe" anxiety is prevalent in nineteen students.

**Table 6: Showing the levels of Depression, Anxiety, and Stress for Male Students N=66**

Levels	DEPRESSION	ANXIETY	STRESS
Normal	37	33	37
Mild	7	8	15
Moderate	12	7	10
Severe	5	7	3
Extremely severe	5	11	1

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The table above represents the levels of depression, anxiety, and stress among a sample of 66 male students. The majority of students reported “**Normal**” levels of depression (37), anxiety (33), and stress (37). However, there were smaller numbers of students reporting mild, moderate, severe, and extremely severe levels of these mental health issues, with the most severe categories having the lowest counts.

**Table 7: Showing the levels of Depression, Anxiety, and Stress for all streams university students-**

Levels	Depression (S)	Depression (C)	Depression (A)	Anxiety (S)	Anxiety (C)	Anxiety (A)	Stress (S)	Stress (C)	Stress (A)
Normal	21	19	25	19	14	23	18	17	26
Mild	6	5	4	6	8	2	12	11	7
Moderate	7	14	5	5	4	9	6	13	7
Severe	5	5	5	4	8	2	6	4	3
Extremely Severe	3	4	6	8	13	9	0	2	2

The above table shows the levels of Depression, Anxiety, and Stress among university students from three different streams: (S) Science, (C) Commerce, and (A) Arts. The data is categorized into five levels: Normal, Mild, Moderate, Severe, and Extremely Severe. The numbers in the table represent the number of students falling into each category for each stream.

*Below is the summary of the data for each category:*

### **Depression:**

- Arts: Normal (25), followed by Extremely Severe (6), then Moderate (5), then Severe (5), followed by Mild (4)
- Science: Normal (21), followed by Moderate (7), Mild (6), Severe (5), and Extremely Severe (3)
- Commerce: Normal (19), followed by Moderate (14), Mild (5), Severe (5), and Extremely Severe (4)

### **Anxiety:**

- Science: Normal (19), followed by Extremely Severe (8), Mild (6), Moderate (5), and Severe (4).
- Commerce: Normal (14), followed by Extremely Severe (13), Severe (8), Mild (8), and Moderate (4),
- Arts: Normal (23), followed by Moderate (9), Extremely Severe (9), Mild (2), and Severe (2)

### **Stress:**

- Science: Normal (18), followed by Mild (12), Moderate (6), Severe (6), and Extremely Severe (0)
- Commerce: Normal (17) followed by Moderate (13), Mild (11), Severe (4), and Extremely Severe (2)
- Arts: Normal (26), Mild (7), Moderate (7), Severe (3), Extremely Severe (2)

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**Table 8: Showing the Source of variation of Depression for all streams of university students**

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.533333	2	1.266667	0.021396	0.978868	3.885294
Within Groups	710.4	12	59.2			
Total	712.9333	14				

The above table shows that there is no significant difference between the groups for Depression for all streams of university students.

**Table 9: Showing the Source of variation of Anxiety for all streams university students**

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.533333	2	1.266667	0.029781	0.97073	3.885294
Within Groups	510.4	12	42.53333			
Total	512.9333	14				

The above table shows that there is no significant difference between the groups for Anxiety for all streams of university students.

**Table 10: Showing the Source of variation of Stress for all streams university students**

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.533333	2	1.266667	0.020925	0.979328	3.885294
Within Groups	726.4	12	60.53333			
Total	728.9333	14				

The above table shows that there is no significant difference between the groups for Stress for all streams of university students.

**Table 11: Showing Variable difference between male and female students for Depression.**

	Variable 1(Female)	Variable 2(Male)
Mean	13.6	13.2
Variance	70.8	185.2
Observations	5	5
Pearson Correlation	0.987700981	
Hypothesized Mean Difference	0	
df	4	
t Stat	0.163846384	
P(T<=t) one-tail	0.438898839	
t Critical one-tail	2.131846786	
P(T<=t) two-tail	0.877797678	
t Critical two-tail	2.776445105	

The above table shows that there is no significant difference between two variables, i.e., Female and male for Depression.

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**Table 12: Showing Variable difference between male and female students for Anxiety.**

	<b>Variable 1(Female)</b>	<b>Variable 2(Male)</b>
Mean	13.6	13.2
Variance	44.3	125.2
Observations	5	5
Pearson Correlation	0.78685297	
Hypothesized Mean Difference	0	
df	4	
t Stat	0.123678483	
P(T<=t) one-tail	0.453767777	
t Critical one-tail	2.131846786	
P(T<=t) two-tail	0.907535554	
t Critical two-tail	2.776445105	

The above table shows that there is no significant difference between two variables, i.e., Female and male for Anxiety.

**Table 13: Showing Variable difference between male and female students for Stress.**

	<b>Variable 1(Female)</b>	<b>Variable 2(Male)</b>
Mean	13.6	13.2
Variance	60.3	208.2
Observations	5	5
Pearson Correlation	0.911227302	
Hypothesized Mean Difference	0	
df	4	
t Stat	0.111542277	
P(T<=t) one-tail	0.458279713	
t Critical one-tail	2.131846786	
P(T<=t) two-tail	0.916559426	
t Critical two-tail	2.776445105	

The above table shows that there is no significant difference between two variables, i.e., Female and male for Stress.

**Findings**

- Maximum respondents (almost half) are falling under normal level concerning Depression, Anxiety and Stress.
- All the respondents exhibited “Extremely Severe” Anxiety (23%) as compared to Depression and Stress.
- For the Science stream, almost 1/5<sup>th</sup> of the respondents fall under “Extremely Severe” Anxiety category.
- 28% of the respondents from the Commerce stream fall under “Extremely Severe” Anxiety and more than 1/4<sup>th</sup> have “Moderate” to “Severe” Anxiety.
- Almost 30% and 28% of respondents have “Moderate” Depression and Stress respectively studying Commerce.
- For respondents from Arts background, mostly falls under “Normal” category. However, 1/5<sup>th</sup> of respondents having “Moderate” and “Extremely Severe” Anxiety.

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- For overall comparison we can observe that after “Normal” category, “Extremely severe” category is saving maximum respondents for Anxiety while data for Depression and Stress is on negligible side.
- While comparing Source of variation of Depression for all streams, the difference is non-significant.
- While comparing Source of variation of Anxiety for all streams, the difference is non-significant.
- While comparing Source of variation of Stress for all streams, the difference is non-significant.
- The comparison between male and female students is non-significant for Depression.
- The comparison shows that there is no significant difference between two variables, i.e., Female and male for Anxiety.
- The comparison between male and female students is non-significant for Stress.

### CONCLUSION

Overall, the analysis shows that most students in every grouping are either normal or near normal on depression, anxiety and stress scale regardless of their academic stream and gender. This is a good sign, as it may show that a large number of college students are not highly symptomatic in those areas.

However, it is also evident that there is a substantial number of students who are classified as experiencing "Mild," "Moderate," "Severe," or "Extremely severe" levels of depression, anxiety, and stress. These findings emphasize the importance of mental health support and intervention on campuses to address the varying needs of students.

It also shows the difference between mental health level when the data is reviewed across different academic streams. For example, anxiety seems to display wider degrees of severity whereby “Extremely severe” cases are recorded higher in Commerce & Arts stream. It could therefore indicate that other stressful challenges which are unique for this type of student cohorts are existing.

Female students often display “Extremely severe” anxiety, whereas males suffer mental problems which occur to varying levels (all types).

Although, there is no significant difference across genders can be seen.

The results are alarming, as we are dealing with mental health. In pathology, disorders like stress and anxiety are not that severe, but, their prevalence in higher numbers among youth is a warning sign. Depression again is less in number, but its severity is in a to-be-mentioned state. The paper's findings are in accordance with the current scenario. Students with severe and extremely severe depression, anxiety and stress are recommended for counselling.

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### **Conflict of Interest**

The author(s) declared no conflict of interest.

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