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ASSESSMENT OF DEPRESSION, ANXIETY AND STRESS AMONG THE AGRICULTURE STUDENTS (DASS-21): AN OBSERVATIONAL STUDY

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ABSTRACT

BACKGROUND: Depression, anxiety and stress are one of the most common problems in student's life. Depression, anxiety and stress are cause due to teenage brain, assignment, project, exam failure etc. if this activities done that leads to hypertension and leads to depression, anxiety and stress in students.

OBJECTIVE: To study on assessment of depression, anxiety and stress among the agriculture students (dass-21)

METHODOLOGY: A total 102 participants were included. The data was collected with DASS-21(Depression, Anxiety and Stress Survey - Questionnaire) in form of google forms. Google forms were filled up by the students who were 17-22 years old. We got the result in percentage according to activity limitations and male to female ratio.

RESULTS: Among them 54.9% female and 45.1% male were responded.

CONCLUSION: According to the study the students have there are more common (65.98%), followed by anxiety (21.7%), depression (24.28%) and stress (20%) in day to day life. The female students are more affected than male students.

Keywords: Depression, anxiety, stress, students.

INTRODUCTION

There are about 1.2 billion teenagers in the globe who are between the ages of 10 to 19 with 243 million of them living in India. Rapid biological, psychological, and social changes occur in the teenage brain. Psychological stress can be brought on by early puberty in both sexes (Patton, 2014; Patton *et al*., 2018). Adolescent brain development and growing sensitivity to social cues are important factors. The manifestation of the phenotypes linked to neuro-physiological and psychological development are influenced by the interaction of the genetic and environmental factors . It is critical to recognize that gaps remain in the growing body of research on teenage health. The focus on infectious diseases has made adolescent health treatments viable. For instance, there is a fair amount of data on early pregnancy, STDs, maternal health and related outcomes related to sexual and reproductive health. There hasn't been much focus on non-communicable diseases in Low-Middle-Income Countries (LMIC), despite their rapid rise. The data gathered do not accurately reflect the breadth and depth of According to Bouchacourt and Buschman (2019), visual working memory is a fundamental cognitive process that facilitates spatial perception and object identification. To assess the participants' abilities, a mapping exercise is given in addition to the visual chart memorization. The Art of Living foundation's YES (Youth Empowerment Seminar) plus curriculum and psychometric assessments are available on campus (Kharya *et al*., 2014). The four main components of this approach are Sudarshan Kriya yoga (SKY), meditation, and pranayama (breath control). SKY is a unique yogic practice created by the Art of Living Foundation that aims to reduce stress in daily life, Rhythmic breathing (Goldstein *et al*., 2016) and breath control (pranayama). When breathing in Pranayama the arms are lifted above the head, and when exhaling, they are dropped. In order to draw attention to the spinal cord, a method called "ujjayi breathing" is employed, which entails feeling the breath touching the throat consciously. It is said that each of these has a distinct effect on the human mind and/or brain (Subramanian *et al*., 2012; Toschi-Dias *et al*., 2017). It is believed that emotional emotions affect working memory and other cognitive functions (N. Gothe *et al*., 2013; N. P. Gothe *et al*., 2016). Their health concerns and challenges in addition to socioeconomic and sociodemographic hurdles. Moreover, the academic program particularly for a university degree can include elements that exacerbate stress, anxiety and depression. Students who worry about deadlines for assignments, projects and final exams along with the failures they may experience or how they will compare to their peers, experience abnormally high levels of stress, anxiety and depression. Pupils rarely seek professional help are ill-prepared and ignorant, if its not hostile to these mental illnesses or disorders will result in lack empathy for one another. With the prevalence of poor diet, sleep patterns and physical inactivity combined with the potential for substance misuse as a coping mechanism for these diseases, depression and anxiety can rise from 1% of those under the age of 12 to approximately 25% of the population by the conclusion of the epidemic. Each of the three conditions (stress, anxiety and depression) are covered by 21-items in questionnaire . Previous research on Indian teenagers using the DASS- 21 has shown it to be a useful instrument.

Objectives Of The Study:

- To study about assess the depression
- To study about assess anxiety
- To study about assess stress

SUBJECTS AND METHODS:

Data collection and study design

An observational study conducted on agriculture students of Gujarat region using Depression, Anxiety and Stress Survey (DASS) 21 Questionnaire. Consent for collecting data was taken from the dean of the college. Data was taken in form of google forms of assessment of depression, anxiety and stress. Data was collected between September 21st to October 2nd 2023. Questionnaire was distributed to the Principals of colleges and then questionnaire shared by them to respective teachers through social media. Age group included for data collection was 17-22 years. Checked for exclusion criteria and students who fulfilled inclusion criteria were taken for the study. Total 102 responses have been recorded. Data of Male and Female have been recorded. All the year of agriculture students were participated.

RESERCH METHODOLOGY

Depression, Anxiety and Stress Survey (DASS) 21 Questionnaire

It is used for assess depression, anxiety and stress. It includes 21 questions that describe the 21-items self-administered DASS questionnaire assesses the three aforementioned emotional states. The total scores provide a severity rating from Normal to Severe. The DASS stands for Depression, anxiety and Stress Survey 21, a shorter version of the DASS 42(Antony *et al*., 1998, 42 item questionnaire)

Dass-21 Questionnaire (Depression Anxiety And Stress Survey)

DASS21 Name: Date:

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

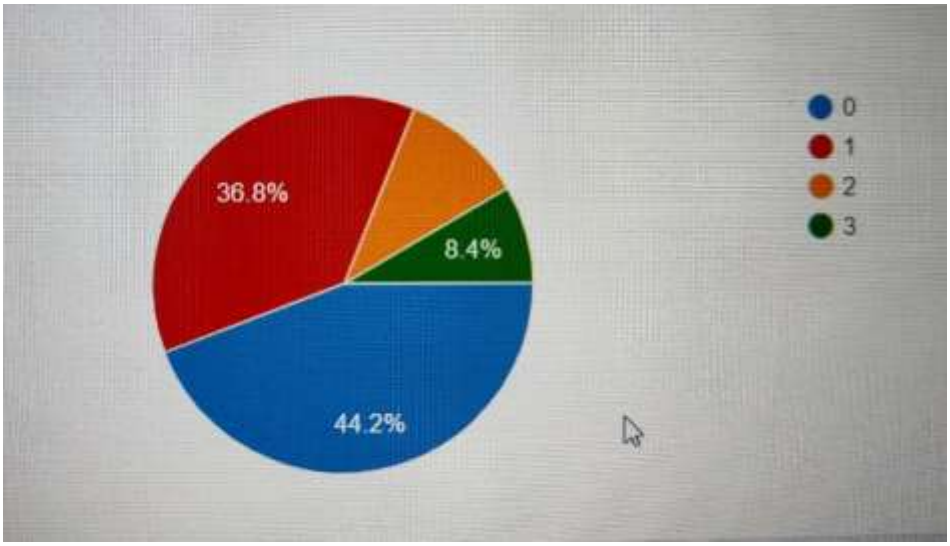
The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

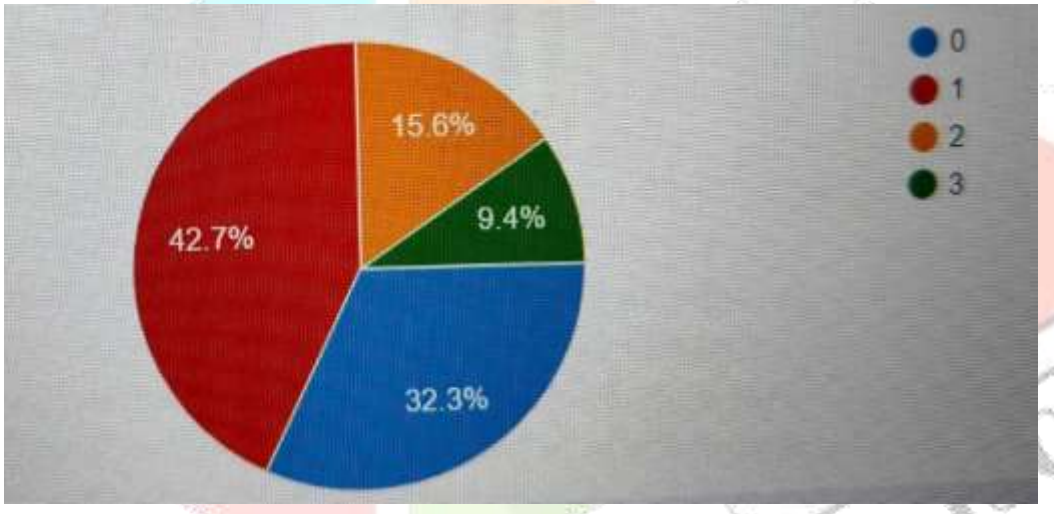
1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

	Depression	**Anxiety**	**Stress**
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

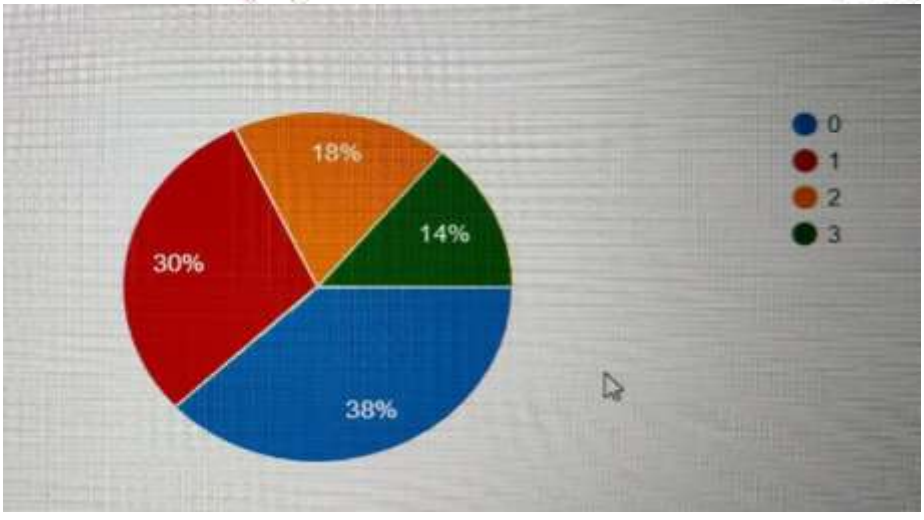
1. I found it hard to wind down



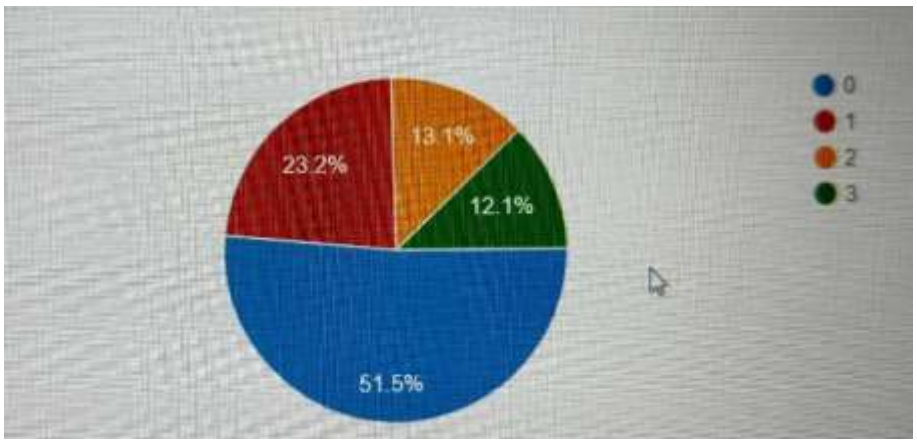
2. I was aware of dryness of my mouth



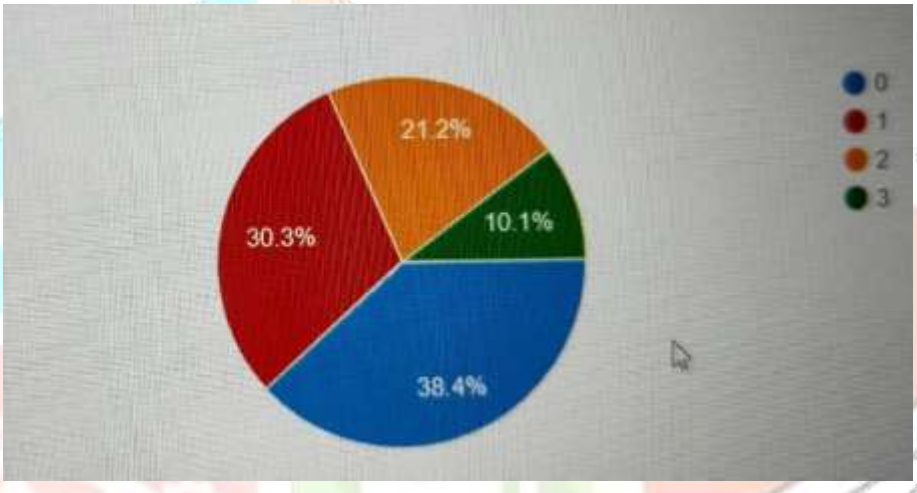
3. I couldn't seem to experience any positive feeling at



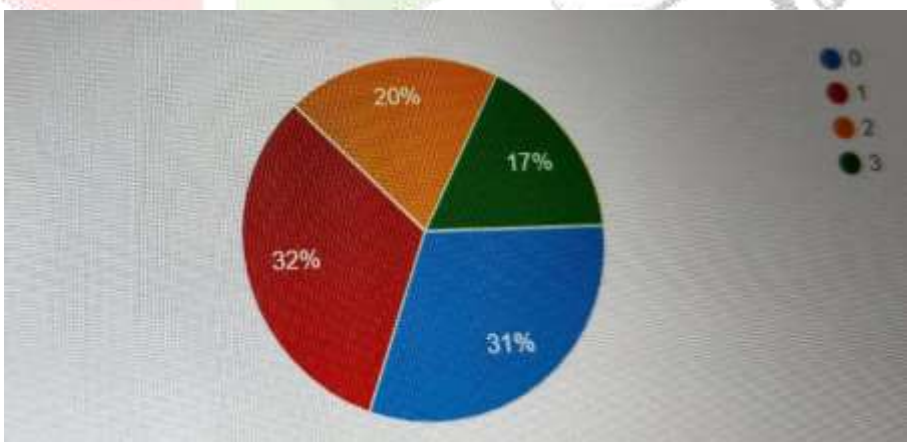
4. I experienced breathing difficulty (e.g. excessively rapid breathing,breathlessness in the absence of physical exertion)



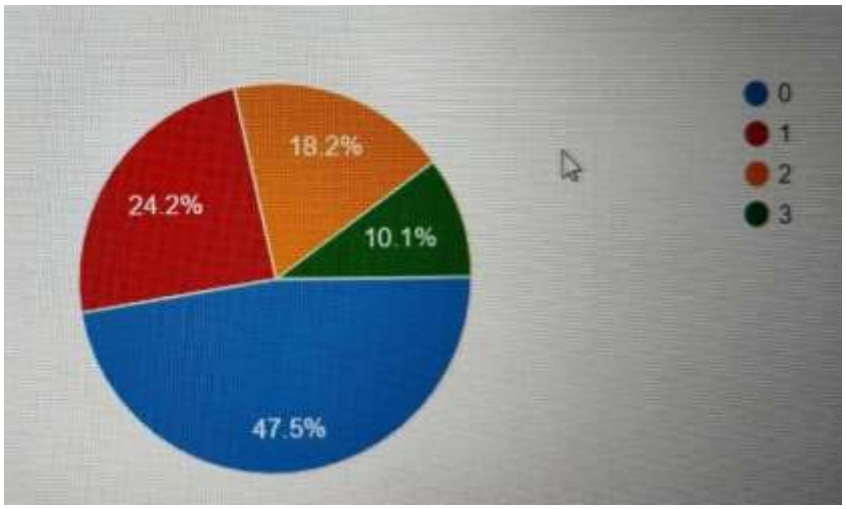
5. I found it difficult to work up the initiative to do things



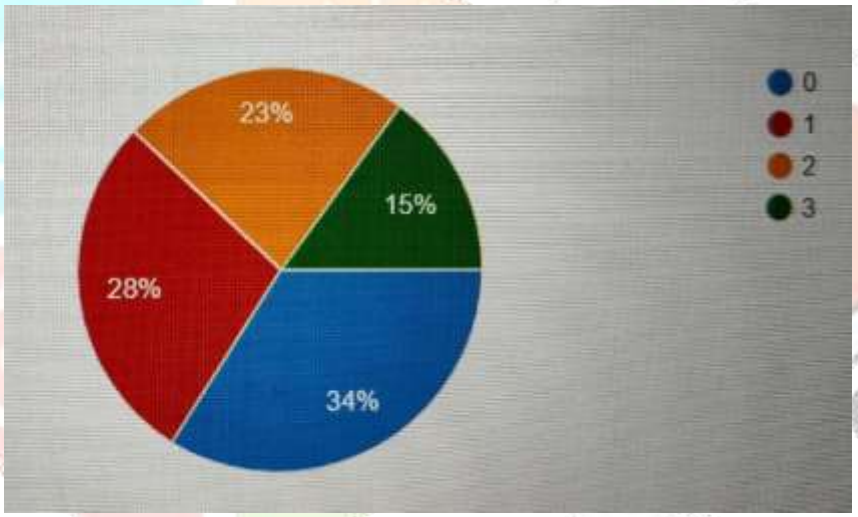
6. I tended to over-react to situations



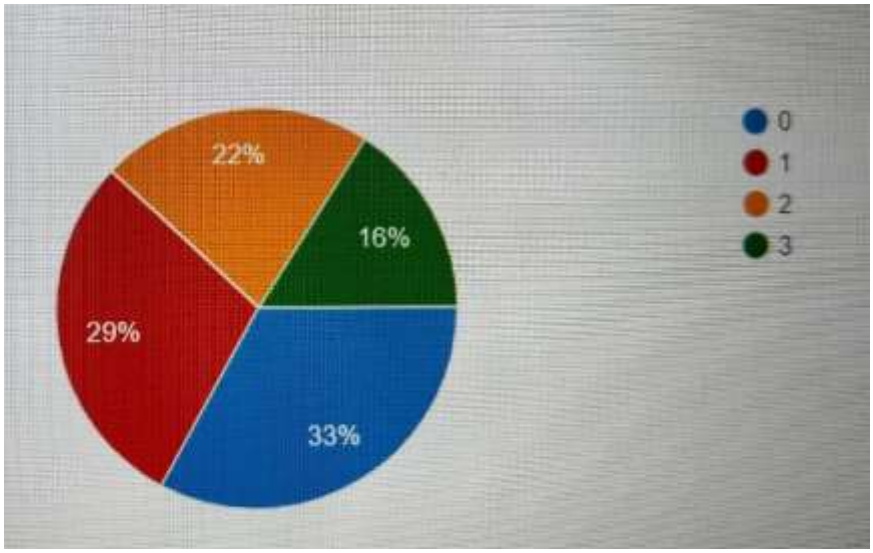
7. I experienced trembling (e.g. in the hands)



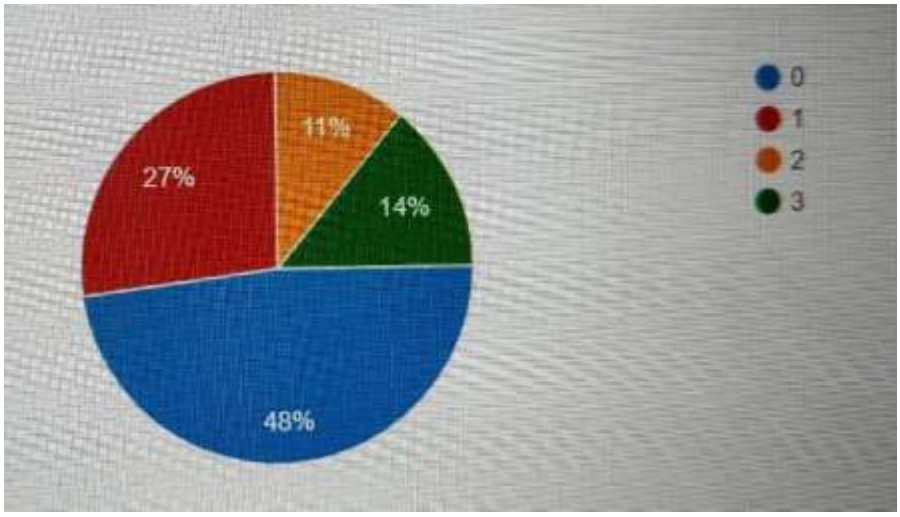
8. I felt that I was using a lot of nervous energy



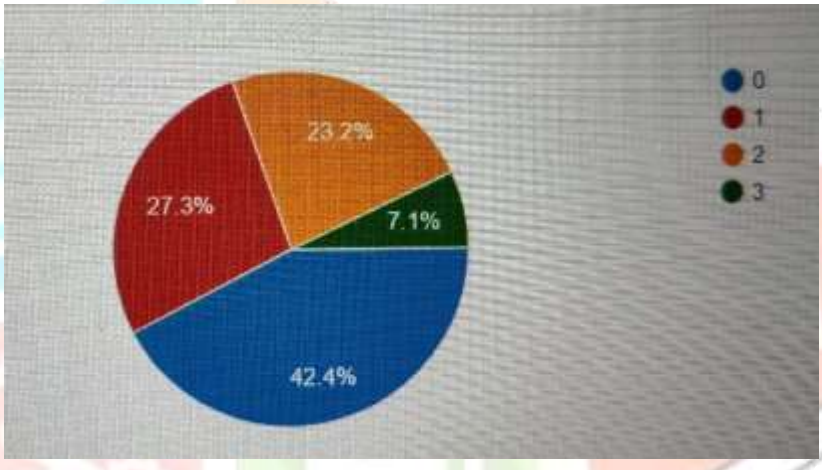
9. I was worried about situations in which I might panic and make a foolof myself



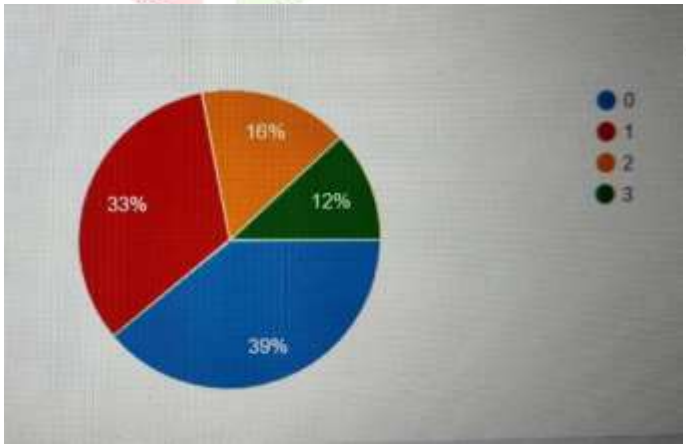
10. I felt that I had nothing to look forward to



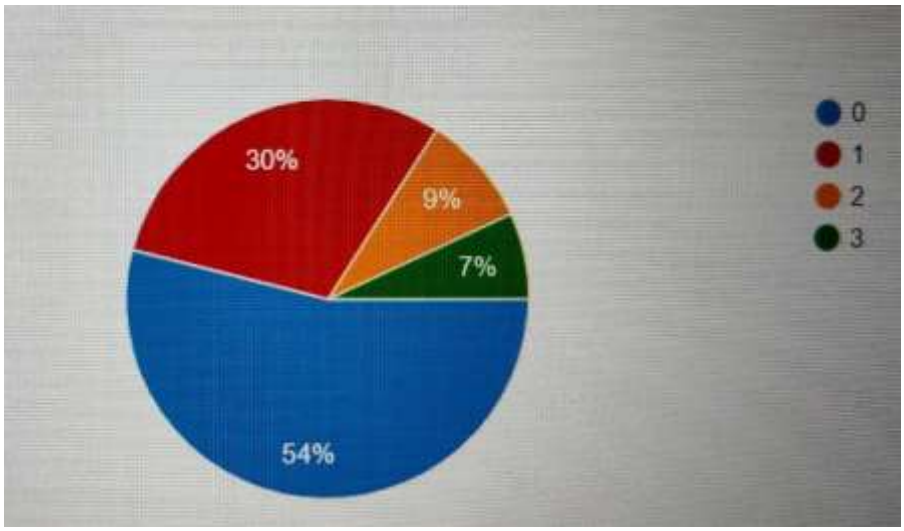
11. I found myself getting agitated



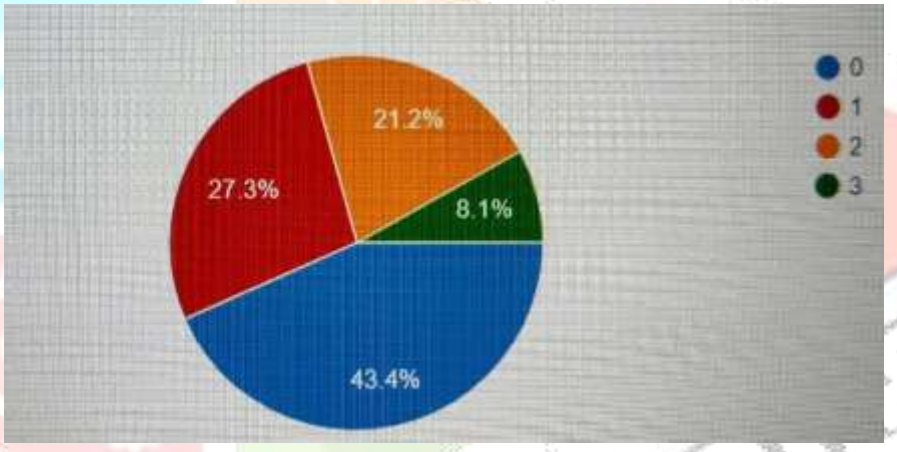
12. I found it difficult to relax



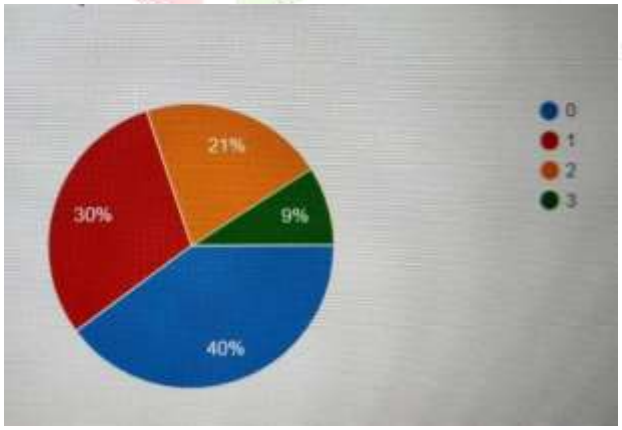
13. I felt down-hearted and blue



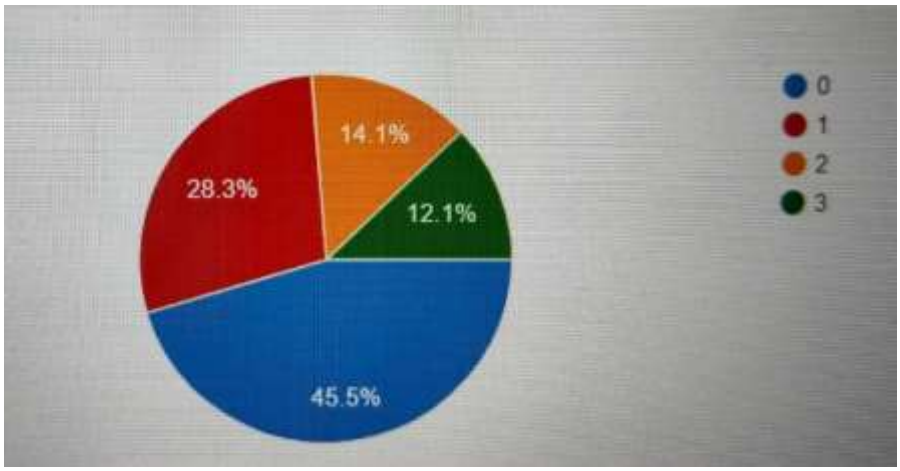
14. I was intolerant of anything that kept me from getting on with what Iwas doing



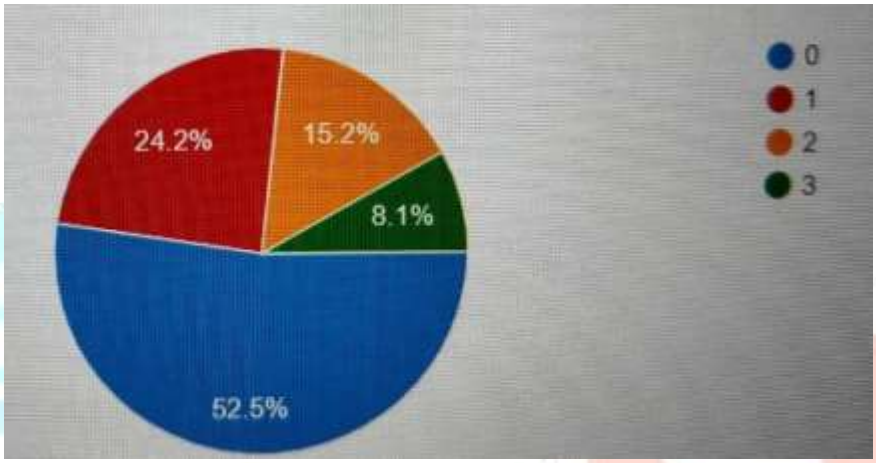
15. I felt I was close to panic



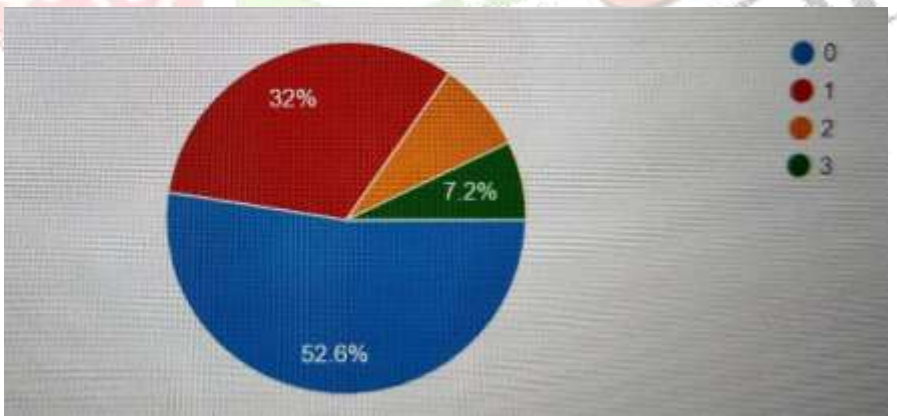
16. I was unable to become enthusiastic about anything



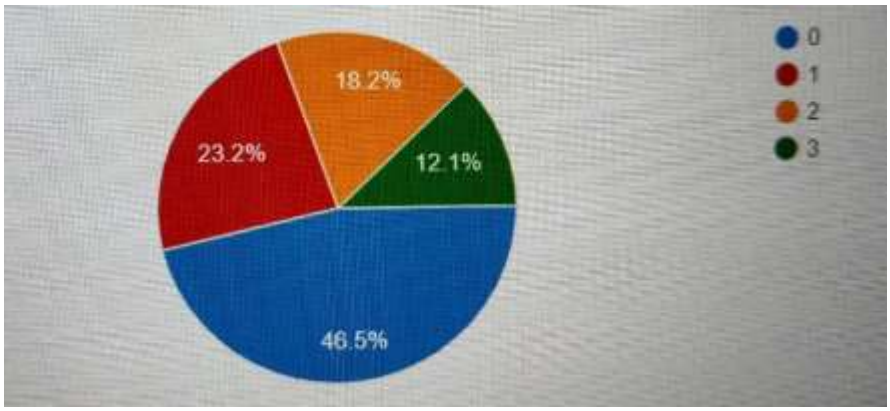
17. I felt I wasn't worth much as a person



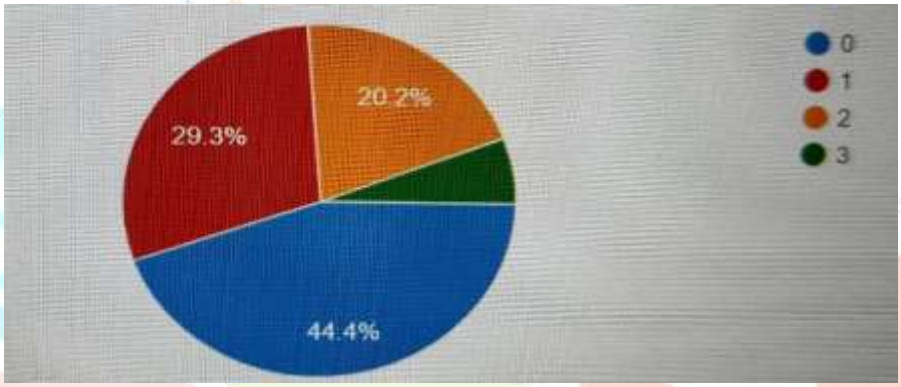
18. I felt that I was rather touchy



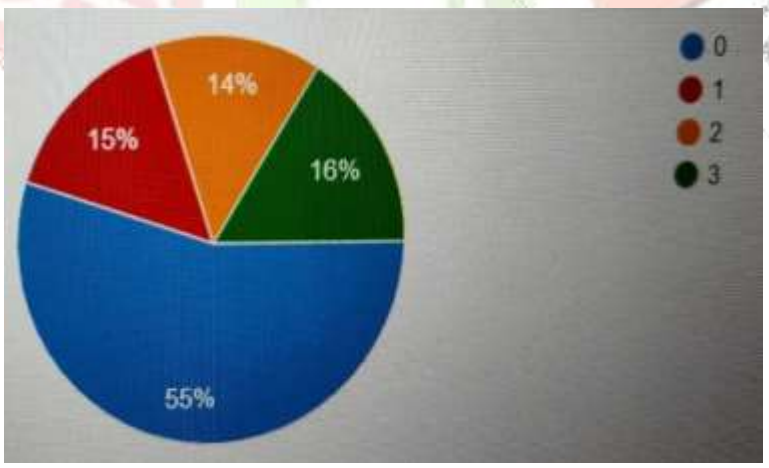
19. I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)

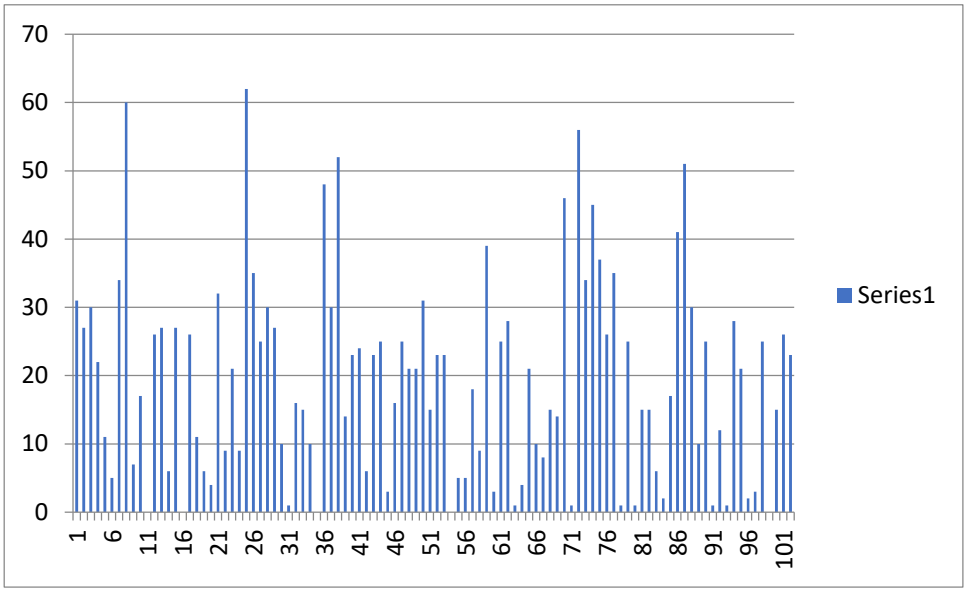


20. I felt scared without any good reason



21. I felt that life was meaningless





DASS 21	Mean value	Score
Depression	12.14	24.28
Anxiety	10.85	21.7
stress	10	20

RESULT

Total 102 responses were obtained from the students. According to responses 44.2% noted are found it hard to wind down, 36.8% noted some degree of hard to wind down, 10.5% noted considerable degree of hard to wind down, 8.4% noted very much time of hard to wind down. 32.3% noted aware of dryness of mouth, 42.7% noted some degree of difficult to aware of dryness of mouth, 15.6% notes considerable degree for aware of dryness of mouth, 9.4% noted as very much time for aware of dryness of mouth. 38% students responds that does not apply of couldn't seem to experience any positive feeling at all, 30% student feel some degree of that, 18% students feel considerable degree of that and 14% student feel very much time of that. 51.5% students no experienced in breathing difficulty, 23.2% students have some degree of breathing difficulty, 13.1% students have a considerable degree of breathing difficulty and 12.1 % students have very much time of breathing difficulty. 38.4 % students have no difficult to initiative things, 30.3% students have some degree of difficult to initiative things, 21.2% students have considerable degree of initiative things and 10.1% students have very much difficulty to initiative to do things. 31% students no over react to situations, 32% students some degree over react to situations, 20% students considerable degree to over react to situation and 17% students very much over react to situations. 47.5% student no experienced trembling, 24.2% students have some degree of trembling, 18.2% students considerable degree to experienced trembling, 10.1% students have very much trembling. 34% students not felt that using lot of nervous energy, 28% students felt some degree using nervous energy, 23% students felt considerable degree of using nervous energy and 15% students felt using very much nervous energy. 33% students not panic about situations, 29% students some degree of panic about situations, 22% students considerable

degree of panic about situation and 16% students have very much panic about situations. 48% students no felt that nothing to look forward, 27% students felt some degree of that, 11% students felt considerable degree of that and 14% students felt very much degree of that. 42.4 % students no found getting agitated, 27.3% students some degree to found agitated, 23.2% students considerable degree to found agitated and 7.1% students found very much getting agitated. 39% students no difficult to relax, 33% students some degree to difficult to relax, 16% students considerable degree to difficult to relax and 12% students very much degree to difficult to relax. 54% student no felt down hearted and blue, 30% student felt some degree of that, 9% student felt considerable degree of that and 7% students felt very much degree of that. 43.4% students tolerate of anything that kept from getting on what doing, 27.3% student some degree of intolerant of anything that kept from getting on what going, 21.2 % student have considerable degree of that, 8.1% student have very much degree of that. 40% students no felt close to panic, 30% students some degree to close to panic, 21% students considerable degree to close to panic and 9% student very much degree close to panic. 45.5% students not apply to become enthusiastic about anything, 28.3% students apply some degree of that, 14.1% students apply considerable degree and 12.1% students apply very much degree of that. 52.5 % students not felt worth much as a person, 24.2% students felt some degree, 15.2% students felt considerable degree and 8.1% students felt very much degree. 52.6% students not felt rather touchy, 32% students felt some degree,8.2% students felt considerable degree and 7.2% students felt very much degree. 46.5% students aware of the action of heart in absence of physical exertion, 23.2% students apply some degree, 18.2% students apply considerable degree, 12.1% student apply very much degree. 44.4% students no felt scared without any good reason, 29.3% students felt some degree of scared, 20.2% students felt considerable degree of scared and 6.1% students felt very much scared. 55% student no felt life was meaningless, 15% students felt some degree, 14% students felt considerable degree, 16% students felt very much degree.

DISCUSSION

To the best of our knowledge, this is the first research on the prevalence of stress, anxiety, and depression symptoms in a sample of agriculture students, along with the factors that may be linked to them. The DASS-21 questionnaire is helpful in determining the frequency of stress, anxiety, and depression symptoms, but it should not be used to diagnose psychological disease. In our population, we found that stress symptoms were significantly more common (42%), followed by anxiety (23.6%) and depression (18.4%). The reported prevalence of psychological distress among college students varies across the globe. An average prevalence of 30.5% was determined by a systematic evaluation of 24 research, the results ranged from 10.4% to 80.5%. Previous research that measured psychological distress using the DASS questionnaire found a similar degree of variation. This could be explained by variations in the selection criteria as well as the existence of confounding variables like the environment's impact on our participants' mental health, which affects how each person perceives their own psychological discomfort as well as how they express it. That is, it's feasible that outside variables, such as the participants' sociocultural background and physical location, will have a major impact on the prevalence of psychological distress in population. Lastly, we would like to draw attention to the fact that data collecting took place over an eight-

month period, and as a result, it is possible that certain students' academic circumstances were different. For instance, it's common knowledge that elements like approaching deadlines and tests can cause a lot of tension and worry in college students. Moreover, our results might not be fully applicable to the entire population of college students studying agriculture. This study was specifically conducted in a government and private college located in Gujarat. In Gujarat, there are fewer private higher education institutions than public ones, and the tuition costs are typically much higher. Nevertheless, our sample's sociodemographic features are comparable to those of related research involving college students enrolled in public universities carried out in Gujarat. Subsequent research endeavors in this domain ought to endeavor to tackle these constraints.

CONCLUSION

In our population, we found that stress symptoms were significantly more common (65.98%) followed by anxiety (21.7%),depression (24.28%) and stress (20%). In our community, we discovered a high frequency of symptoms related to stress, anxiety and depression—symptoms that, in some situations, combine rather than appear separately. Furthermore, several factors were shown to be connected to these symptoms. A number of variables, such as a college student's age, gender, self-esteem, sleep hygiene, living situation, and usage of alcohol, tobacco and the Internet, seem to be closely linked to psychological distress in this demographic. We contend that the results of our study can be used to inform the development of early detection methods for mental health issues as well as psychological and other therapies aimed at promoting mental wellness and health among college students.

LIMITATION OF STUDY

- The research focuses only on agriculture students.
- The Study covers only agriculture students in Gujarat state.

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