

Prevalence and Impact of Depression, Anxiety and Stress, on Academic and Work performance Among Young Adults Studying While Working Full Time

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ABSTRACT

Purpose: 1] To find prevalence of depression, anxiety and stress using DASS-21 among young adults studying while working full time. 2] To find correlation of depression, anxiety and stress with academic performance and work performance using GPA and WHO-HPQ respectively. **Methodology:** This cross-sectional study was conducted among 220 young adults through a simple random sampling method. We included 116 female and 104 male young adults who are studying in professional courses while working full-time, having minimum 1 year of work experience and completed at least 1 semester of the higher education they are pursuing. While, individuals with pre-diagnosed psychological disorders were excluded. **Results:** We found a prevalence of depression (40.45%), anxiety (55%) and stress (33.18%) in our study population. There was a significant negative correlation between depression, anxiety and stress with academic and work performance, where the correlation between anxiety and academic performance had the correlation coefficient $r = -0.18$ with $p = 0.009$ and with work performance stood out as the most impactful, with a correlation coefficient $r = -0.46$ with $p = 0.000$. **Conclusion:** There was a considerable prevalence of depression, anxiety and stress seen in nearly half of the participants. Along with that it also indicated that higher levels of depressive, anxiety and stress symptoms affected academic performance as well as work performance in the individuals of the study.

Keywords: DASS-21, Mental health, Academic performance, work performance, WHO-HPQ, GPA.

Introduction

According to the World Health Organization (WHO) in 2011 –“Mental health is defined as a state of well-being in which every single person realizes his or her own potential, can manage with the normal stresses of life, can work effectively and productively and is able to make an impact to his or her own civic”. More than 450 billion people suffer from a type of mental disorder. ^{[1][2]} Among the mental

health disorders; depression anxiety and stress form a huge proportion. Mental health disorders account for 13-14% of the world's total load from ill-health. In India about 10-20 out of 1000 is estimated to have suffered from severe mental illness and three to five times more have an emotional illness. India has a 1 year prevalence rate of depression from 5.8 to 9.5. In India, prevalence of moderate level of stress was reported at 9.5% in a study which also found more stressors were work related.^[1] The prevalence rate for anxiety conditions is around 16.5.^{[1][3]} Mental health problems are the first cause of disability and a major public health issue worldwide due to disease progression, difficulties in therapeutic management and increasing prevalence.^[4]

Depression is one of the most common psychiatric diagnoses and the single major cause of loss of function with reduced health within all diagnoses.^[5] Depression is characterized by a combination of physical, emotional, psychomotor, and cognitive impairments which can manifest itself by warning signs such as sleep disturbance, poor concentration, negative thoughts and feeling of guilt.^{[6][7]}

Anxiety disorders are defined as a group of mental disorders characterized by an unpleasant feeling with uneasiness or worry about future events or the fear of responding to current events. It may occur without an recognizable triggering stimulus.^{[8][9]} In 2013, one out of every nine people in the world had at least one of the anxiety disorders.^[8]

Stress is a state of inadequacy between our needs and our capability and offers of our environment and demands from us. An acceptable level of stress could be a motivation for productivity and good performance. However, a high level that exceeds the personal capability to cope could be harmful. It may negatively impact physical and psychological wellbeing.^[10] Interventions such as building resilience and positive coping are well known for their effectiveness in enhancing psychological health.^[11]

Intellectual ability, cognitive capacity, physical health, and mental health are just some of the aspects that affect students' ability to be fruitful in college. Factors such as past academic performance as well as standardized testing influence academic performance. Uniform test scores and GPA are frequently used to measure intellectual ability.^[12] Students experiencing depressive signs may be caught in a malicious cycle in which depression disturbs academic study and poor academic performance adds to low mood.^[6] Anxiety is proposed to interfere with working memory, draining resources leading to significant decrements in test performance.^[13] High perceived stress is correlated with lower academic achievement.^[10]

It has been long known that the workplace and the mental health of workers have a complex relationship.^[1] Adverse mental health of workers can disrupt work. Amplified absenteeism, reduced productivity, and profits as well as costs to deal with the problem all eat into an employer's economic capability.^{[1][14]} Depression and anxiety patients can have occupational role dysfunction and stress at the workplace leads to an unhealthy environment.^[1]

Maximum mental health problems appear by initial adulthood, yet young adults seldom get any support for their mental health.^{[4][15]} Furthermore, mental health issues in this population are associated with higher incidence of physical and emotional problems in the mid to long term^{[4][16]}, labour market marginalization^{[4][17]}, worse quality of sleep^{[4][18]} and dysfunctional relationship among others.^{[4][19]}

Perceived outcomes of joining employment and study can be enlightened using role theory. Roles are sets of norms and expectations of behaviour that are assigned by significant others to a specific position,

and provide a method for the role incumbent to organize expectations by reference to a social structure. Individuals occupy multiple roles throughout their lives, and successful management of these roles presents a psychological challenge. However, it is often presumed that the demands of multiple role possession in modern life have become progressively difficult, whereby coping with multiple roles is related with increased stress and psychological morbidity, including anxiety, depression and role strain. There are many more non-traditional students, commencing studies later in life, pursuing professional development, gaining qualifications for 'added value', studying part-time or using remote technologies. [20]

Nowadays, due to increased expenses, lack of job security, inadequate income and passion to perceive education in desired area; people work harder. Also people want to secure future by planning investment; hence they earn and learn at the same time. In order to achieve this people are now pursuing higher education while working full time. It is done to improve their future employability, get promoted and rise in their income so they shall maintain a certain standard of living. Globally, a lot of studies have reported regarding psychological problems faced by students, employees or students working part-time, but very few have expressed about the psychological problems like depression, anxiety and stress experienced by people studying while working full-time. Furthermore, identifying these psychological problems will help understand the aftermath of them on individuals' performance in studies as well as at workplace to attribute causality. Hence, the present study aimed to find prevalence of depression, anxiety and stress among young adults studying while working full time and its impact on their academic and work performance.

Methodology

Study type- Cross-sectional study

Study set up- Workplace and residential area.

Study duration- 6 months

Sample size- $N = Z1^2PQ / D^2$

$$N = 220$$

Method of Sampling - Simple random sampling.

Subjects included in the study were 1. Young adults who are studying in professional courses while working full-time. 2. Both male and female. 3. Individuals who have bachelors or diploma degree. 4. Having minimum 1 year of work experience. 5. Willing to participate in study. 6. Having completed at least 1 semester of the higher education they are pursuing. 7. Individuals pursuing distance education. Subjects excluded were those who were pre-diagnosed psychological disorders.

Procedure

Ethical clearance was taken from the ethical committee of Dr. Ulhas Patil college of physiotherapy, Jalgaon prior to the commencement of the study. A cross – sectional study was administered and subjects were screened on the basis of inclusion – exclusion criteria. A brief demographic data was obtained and a written consent was taken from all the participants, and the nature and purpose of the study was explained to them. First, we assessed the prevalence of depression, anxiety and stress using

DASS-21 scale. Then we assessed the academic performance with the help of GPA. The WHO-HPQ baseline version was used to assess the work performance.

Outcome measures like DASS-21 (The Depression, Anxiety and Stress Scale – 21 items), GPA (Grade Point Average), WHO-HPQ (World Health Organization Health and Work Performance Questionnaire) were taken.

1. DASS-21 (The Depression, Anxiety and Stress Scale – 21 items): The Depression, Anxiety and Stress Scale – 21 items (DASS-21) is a three self-report subscales designed to measure the emotional states of depression, anxiety and stress. The DASS-21 item is a modified and shorter version of the original DASS-42 item. Each of the three DASS-21 scales contains 7 items, distributed into subscales with similar content. The depression scale measures dysphoria, desperateness, devaluation of life, self-deprecation, and lack of interest/participation, anhedonia and inertia. The anxiety scale evaluates autonomic awakening, skeletal muscle effects, situational anxiety, and subjective familiarity of anxious effect. The stress scale is delicate to levels of prolonged non-specific arousal. It assesses struggle relaxing, nervous arousal, and being easily troubled/agitated, ill-tempered/over-reactive and impatient. The subjects are asked to use a four-point Likert scale (0 = Did not apply 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) to rate the extent to which they have experienced each state over the past week. Sum scores are considered by totaling the scores on the items per subscale (i.e., depression, anxiety and stress) and multiplying them by 2. Predefined thresholds for mild, moderate to severe or extremely severe symptom levels are used to categorize levels of depression, anxiety and stress as: normal [depression (0-9), anxiety (0-7), and stress (0-14)], mild [depression (10-13), anxiety (8-9), and stress (15-18)], moderate [depression (14-20), anxiety (10-14), and stress (19-25)], severe [depression (21-27), anxiety (15-19), and stress (26-33)] and extremely severe [depression (28+), anxiety (20+), and stress (34+)].

2. GPA (Grade Point Average): The GPA or Grade Point Average is a number that indicates how high a person has scored in their courses on average. Students receive a grade for each assignment, project and exam. Those grades are added together and divided by the number of units of work to calculate the average score for the semester. This provides them with their GPA. Possible GPA scores ranges from 1.0 to 10.0, with higher scores indicating better performance. This number is used to assess whether they have met the standards and expectations set by the degree programme or university.

3. WHO-HPQ (World Health Organization Health and Work Performance Questionnaire): Abdominal The World Health Organization Health and Work Performance Questionnaire (WHO-HPQ) at baseline is a self-report questionnaire used to assess job performance. It is designed to estimate self-reported sickness absence and reduced job performance (presenteeism). The WHO-HPQ at baseline includes questions about work situations, the kinds of work, type of main job, number of people personally supervised, number of hours expected to work, work experiences over past 7 days, number of hours worked, rating the usual performance of other workers with similar job, rating usual performance in past year or two, rating performance in past 7 days and comparing overall job performance with other workers. Absenteeism refers to the habitual non-presence of an employee at their job. In WHO-HPQ, absenteeism is defined as working hours lost due to sickness absence (a high score indicates a higher number of hours lost, and a negative score indicates that the individual worked more than expected).

Relative absenteeism is measured by expressing a percentage of expected work hours which ranges between a negative number (works more than expected) and 1.0 (always absent). Absenteeism is calculated using 4-week estimates. Presenteeism is a degree of actual work performance in relation to probable performance (an upper score shows a lower amount of lost performance). Absolute presenteeism is in between 0 (total lack of performance during time on the job) and 100 (ideal performance). Relative presenteeism is a fraction of actual performance to the performance of most workers at the similar job. It ranges from 0.25 to 2.0, where 0.25 is the worst relative performance (25% or less of other workers performance) and 2.0 is the best performance (200% or more of other workers performance).

Statistical Analysis

Total All data was collected through online mode and entered into Microsoft Excel. Descriptive statistics were applied to categorical variables where mean and SD was expressed in %. Mean and SD were computed. All the results are shown in tabular as well as graphical format to visualize the statistically significant difference more clearly. Normality of the data was checked using Ryan-Joiner Test. As the p-value is less than or equal to the significance level (0.05), we conclude that our data does not follow a normal distribution. Hence, Spearman's Rank correlation coefficient test (non-parametric) was used to find correlation of depression, anxiety and stress with academic and work performance. All the data was analysed using Minitab 13 software.

Normality Test - Ryan-Joiner Test

Table 1: Represents normality for different variables

Variables	P-value
Depression	< 0.01
Anxiety	< 0.01
Stress	< 0.01
Academic Performance	0.028
Work Performance	0.032

Results

Total 220 samples were collected for the study and analysis was carried out. In our study, the mean age of participants was 27.85 ± 3.23 . Other variables such as depression, anxiety, stress, academic and work performance by their mean and standard deviation are shown below:

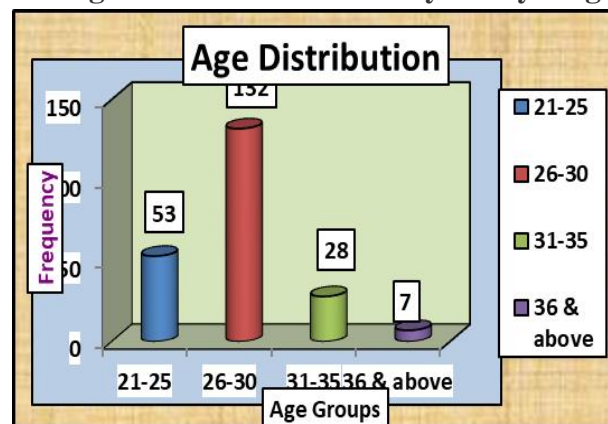
Table 2: Represents analysis of basic descriptive statistics of participant's variables (mean \pm SD)

VARIABLES	MEAN	SD*
AGE (YEARS)	27.85	3.23
DEPRESSION	9.13	6.39
ANXIETY	9.40	6.36
STRESS	13.40	5.99
ACADEMIC PERFORMANCE (GPA)	7.57	0.64

WORK PERFORMANCE	74.59	11.48
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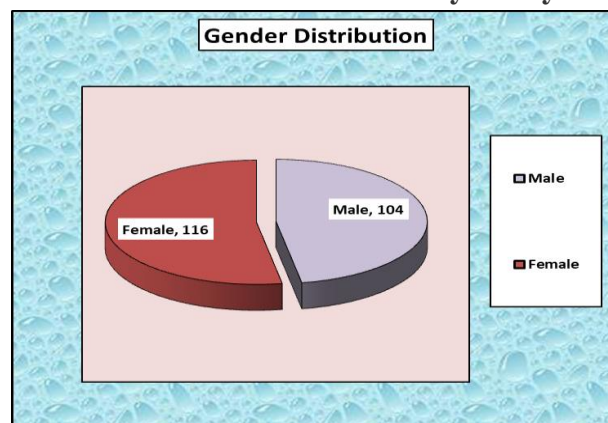
Out of total 220 participants, 24.09% (n=53) were from the age group 21-25 years, 60% (n=132) which was majority, were from the age group 26-30 years while 12.73% (n=28) were from 31-35 and 3.18% (n=7) were from 36 & above age (Graph 1).

Graph 1: Age-wise distribution analysis in young adults.



From our sample, majority were females 52.73% (n=116) with 47.27% (n=104) males (Graph 2).

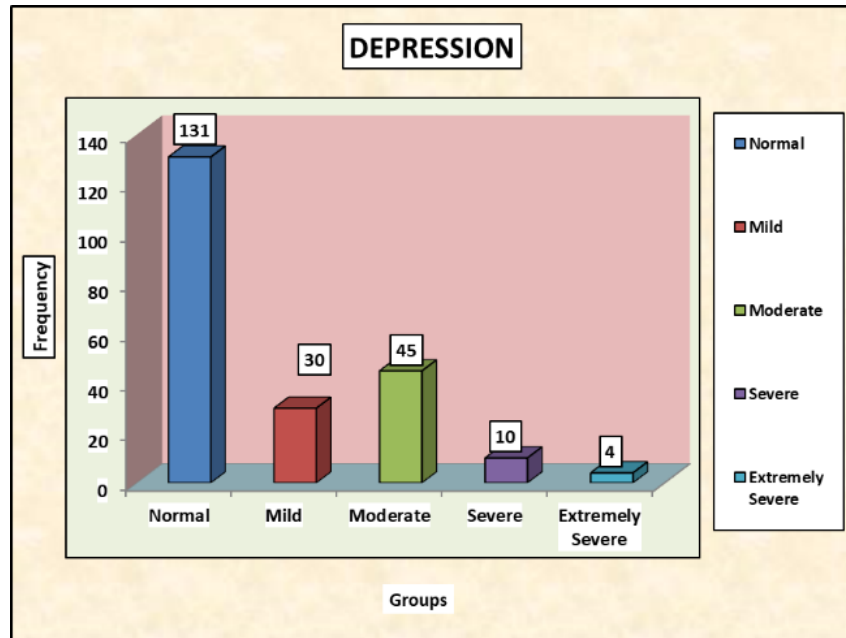
Graph 2: Gender-wise distribution analysis in young adults.



Prevalence of Depression:

Prevalence of depression was assessed using Depression, Anxiety and Stress Scale (DASS-21). Among our participants 59.55% (n =131) were normal, 13.64% (n = 30) had mild depression, 20.45% (n = 45) reported moderate depression while 4.55% (n = 10) had severe level and 1.82% (n = 4) extremely severe levels of depression (Graph 3).

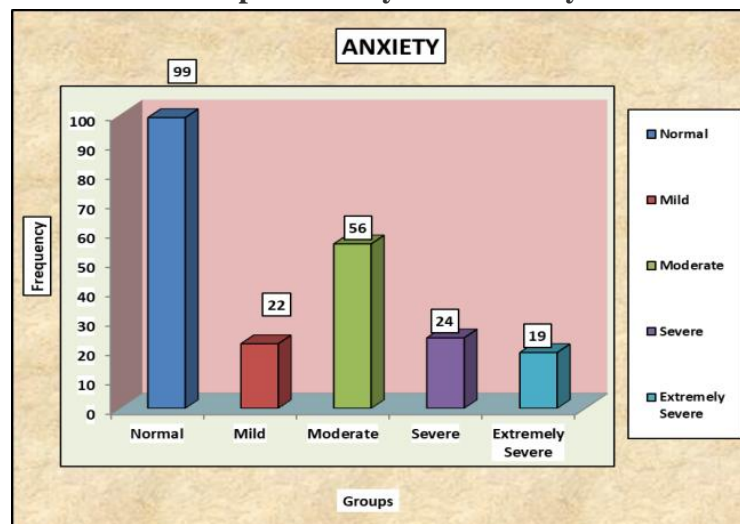
Graph 3: Analysis of Depression



Prevalence of Anxiety:

Prevalence of anxiety was assessed using Depression, Anxiety and Stress Scale (DASS-21). Where 45% (n = 99) were normal, 10% (n = 22) had mild anxiety, 25.45% (n = 56) reported moderate anxiety while 10.91% (n = 24) had severe level and 8.64% (n = 19) extremely severe levels of anxiety (Graph 4).

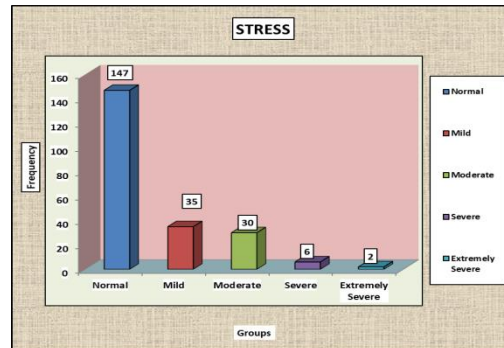
Graph 4: Analysis of Anxiety



Prevalence of Stress:

Prevalence of stress was assessed using Depression, Anxiety and Stress Scale (DASS-21). Among our participants 66.82% (n = 147) were normal, 15.91% (n = 35) had mild stress, 13.64% (n = 30) reported moderate stress while 2.73% (n = 6) had severe level and 0.91% (n = 2) extremely severe levels of stress (Graph 5).

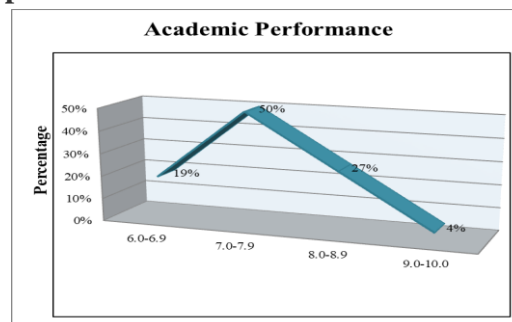
Graph 5: Analysis of Stress



Academic Performance:

The academic performance of the sample were, 19% (n=41) individuals had GPA scores from 6.0 to 6.9, 50% (n=111) had GPA scores 7.0 to 7.9, 27% (n=60) had GPA scores 8.0 to 8.9 and 4% (n=8) had GPA scores of 9.0 to 10.0 (Graph 6).

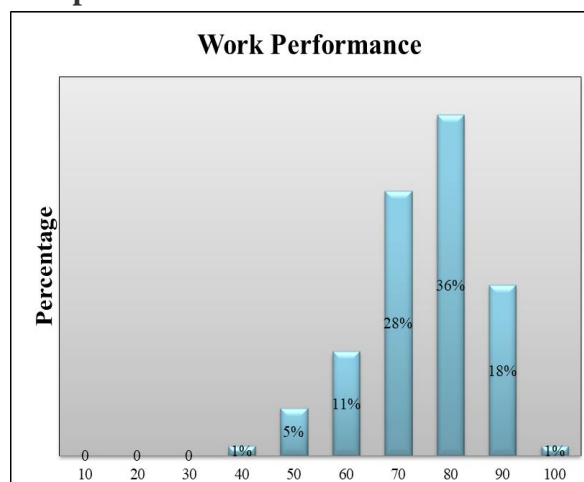
Graph 6: Academic Performance Distribution.



Work Performance:

Out of 220 participants, 1% (n=3) individuals rated their work performance as 40 out of 100, 5% (n=11) reported 50 out of 100, 11% (n=25) had 60 while 28% (n=61) had 70 out of 100, 36% (n=79) individuals rated their work performance as 80, 18% (n=40) reported 90 and 1% (n=1) had 100 out of 100 response (Graph 7).

Graph 7: Work Performance Distribution



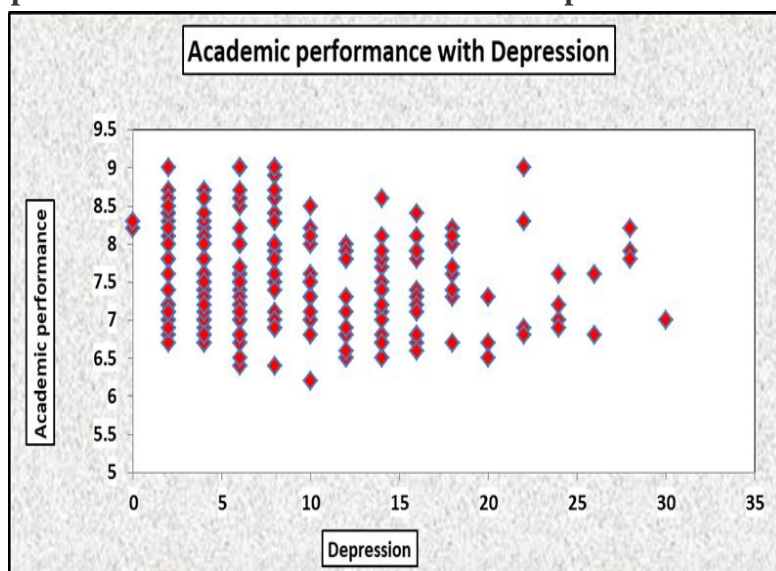
Correlation between Depression and Academic Performance:

Spearman's Rank correlation coefficient was used to find the correlation between depression with academic performance. The p value less than 0.05 shows the significant correlation. The correlation coefficient for depression was -0.16 with p value 0.015 (Table 3).

Table 3: Correlation of depression with GPA (Academic performance)

Spearman's Rank Test	
Correlation coefficient (r)	-0.17
P-value	0.010
* Correlation is significant	

Graph 8: Represents Correlation between Academic performance and Depression



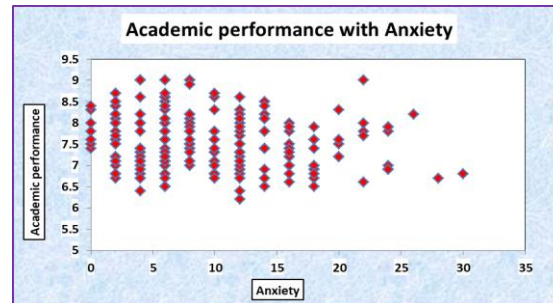
Correlation between Anxiety and Academic Performance:

Spearman's Rank correlation coefficient was used to find the correlation between anxiety with academic performance. The p value less than 0.05 shows the significant correlation. The correlation coefficient for depression was -0.17 with p value 0.010 (Table 4).

Table 4: Correlation of anxiety with GPA (Academic performance).

Spearman's Rank Test	
Correlation coefficient (r)	-0.16
P-value	0.015
* Correlation is significant	

Graph 9: Represents Correlation between Academic performance and Anxiety



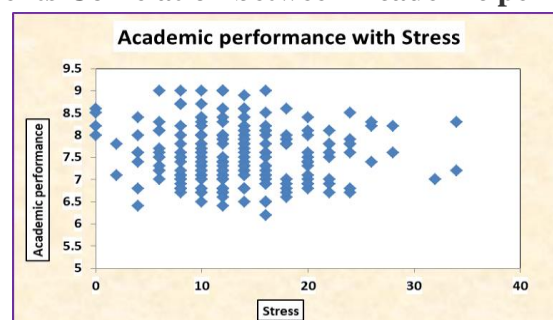
Correlation between Stress and Academic Performance:

Spearman's Rank correlation coefficient was used to find the correlation between stress with academic performance. The p value more than 0.05 shows that there is no significant correlation. The correlation coefficient for stress was -0.063 with p value 0.34 (Table 5).

Table 5: Correlation of stress with GPA (Academic performance)

Spearman's Rank Test	
Correlation coefficient (r)	-0.063
P-value	0.34
* Correlation is not significant	

Graph 10: Represents Correlation between Academic performance and Stress



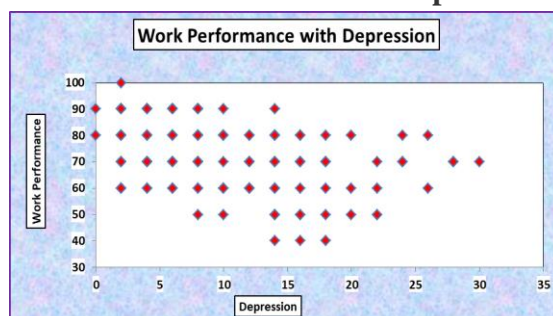
Correlation between Depression and Work Performance:

Spearman's Rank correlation coefficient was used to find the correlation between depression with work performance. The p value less than 0.05 shows the significant correlation. The correlation coefficient for depression was -0.42 with p value 0.000 (Table 6).

Table 6: Correlation of depression with Work performance

Spearman's Rank Test	
Correlation coefficient (r)	-0.42
P-value	0.000
* Correlation is significant	

Graph 11: Represents Correlation between Work performance and Depression



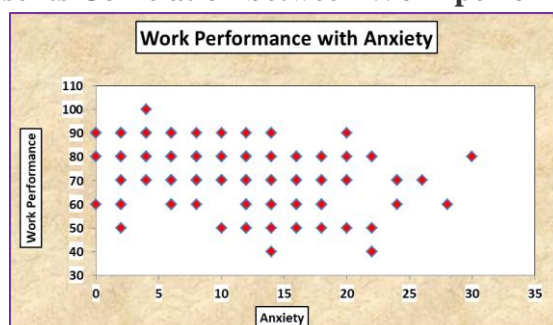
Correlation between Anxiety and Work Performance:

Spearman's Rank correlation coefficient was used to find the correlation between anxiety with work performance. The p value less than 0.05 shows the significant correlation. The correlation coefficient for anxiety was -0.49 with p value 0.000 (Table 7).

Table 7: Correlation of anxiety with work performance

Spearman's Rank Test	
Correlation coefficient (r)	-0.49
P-value	0.000
* Correlation is significant	

Graph 12: Represents Correlation between Work performance and Anxiety



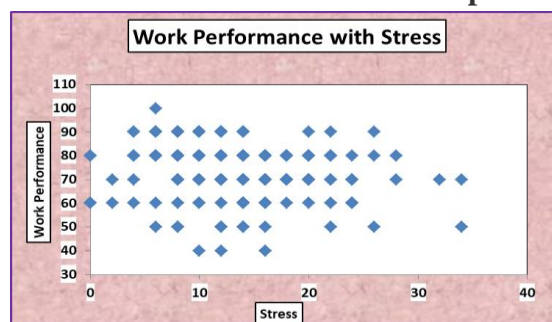
Correlation between Stress and Work Performance:

Spearman's Rank correlation coefficient was used to find the correlation between stress with work performance. The p value less than 0.05 shows the significant correlation. The correlation coefficient for stress was -0.24 with p value 0.0003 (Table 8).

Table 8: Correlation of stress with work performance

Spearman's Rank Test	
Correlation coefficient (r)	-0.24
P-value	0.0003
* Correlation is significant	

Graph 13: Represents Correlation between Work performance and Stress



Discussion

The present study aimed to determine the prevalence of depression, anxiety and stress among young adults studying while working full time and its impact on their academic and work performance.

The socio-demographic factors that were examined in our study were age and gender. The average age of study participants was 27.85. More than half were female participants.

Prevalence of depression, anxiety and stress:

Prevalence of depression, anxiety and stress was assessed using the DASS-21 questionnaire, which includes three different subscales DASS-D, DASS-A and DASS-S for depression, anxiety and stress, respectively.

Our study has shown that 40.45% participants had depressive symptoms. A study by Amir Reza Nabipour in 2013, found a prevalence of 34.7% in their study ^[21]. This is slightly less than the prevalence from our study, as lack of enthusiasm as well as negative feeling that they might not be able to achieve their target while working and studying together leads to depressive symptoms.

The prevalence of anxiety in our study was 55% that means that more than half of our population suffers from anxiety. A pilot study in Bangalore by Rao S in 2015 found a prevalence of 36% in their study ^[1]. When compared, our study had much higher anxiety rates as performance pressure makes person panic in some situations, while trying to balance work and academics together might cause difficulty breathing and palpitations in the absence of physical exertion.

Our study also determined 33.18% prevalence of stress among the participants. Concurrent to study by Rao S, who found 18% prevalence of stress in their population 13, had a smaller sample size, whereas a lot of participants were on sick leave, while some were on leave for other reasons, which explains the lower occurrence of stress ^[1]. The participants in our study were studying and working together, such situations of balancing both sometimes makes a person agitated when failed to do so, some are intolerant of anything that keeps them from getting on with what they are pursuing, this indicates stress in people.

In our study, the severity rating of depression, anxiety and stress levels was not assessed with the 'gold standard,' 'a diagnostic psychiatric interview' but with the self-reported DASS-21 questionnaire. The DASS-21 questionnaire was developed to quantify mental health problems for screening purposes and have been shown to be adequately reliable and valid instrument to measure depression, anxiety and stress in normal and clinical samples. In terms of psychometric properties, using normal samples, Lovibond and Lovibond have shown that the DASS questionnaire possesses sufficient convergent and discriminant validity. They found that the Beck Anxiety Inventory (BAI) and the DASS-anxiety subscale was highly

correlated ($r=0.81$), as was the Beck Depression Inventory (BDI) and DASS-depression subscale ($r=0.74$)^[22].

For most purposes, scores on the DASS-21 questionnaire may also be interpreted relative to the means and standard deviations of the complete normative sample. Our study has shown that the mean DASS-Depression score was 9.13 ($SD=6.39$), the mean DASS-Anxiety score was 9.40 ($SD=6.36$) and the mean DASS-Stress score was 13.40 ($SD=5.99$). These findings are slightly higher than a study by Bin Abidin EDIMANSYAH in the year 2007, where the mean DASS-Depression score was 8.2 (5.8), the mean DASS-Anxiety score was 8.3 (5.6) and the mean DASS-Stress score was 11.2 (6.5)^[22].

Correlation of depression, anxiety and stress with academic performance (GPA):

Our study showed that there was significant negative correlation of depression and anxiety with academic performance ($r = -0.17$ and $r = -0.17$). Moureen adhiambo nyayieka conducted a study in the year 2020, also indicated that depression and anxiety highly affected academic success ($r = -0.34$ and $r = 0.23$, $p \leq 0.000$)^[23]. Depressed people often feel sad and down hearted. Untreated depression typically hinders in day-to-day activities and persists for an extensive time. Depressed folks overlook their own successes and good characters, while overstressing their faults and failures. Student's academic performance which every individual have to perform in all cultures has become an important goal of the educational process^[24]. And this important goal is hampered by psychological problems.

Our study also showed a correlation of stress and academic performance ($r = -0.063$). According to a research by Muhammad GA (2023), Stress can have both good and bad effects. When the stress level is low, a person's performance will increase, conversely when the stress level is high, the performance will worsen^[25]. Some individuals tend to study better when under stress, such eustress is beneficial.

Hasan Jamil, in the year 2020 conducted a study in which he mentioned that higher anxiety and depression levels were associated with previous poor performance^[26].

Correlation of depression, anxiety and stress with work performance:

Our study showed a significant relationship between depression and work performance ($r = -0.42$). A study by sardana tabrose in the year 2022 stated that, depressed employees will perform their work duties worse and that their work performance will be at a lower level than among employees who do not have depression^[27].

There was also a significant negative correlation of anxiety and work performance in our study ($r = -0.49$). A research by melanie k. Jones in 2011 states that there is evidence of a positive relationship between job anxiety and absence, with a one unit increase in average workplace employee job anxiety associated with a 2.90% point increase in the absence rate, resulting in reduced work performance^[28].

The results from a study conducted in the year 2022 by dr. Muhammad zia-ur-rehman show that there is a significant negative relationship between depression - employee performance, and anxiety - employee performance^[29].

Similarly our study also revealed that high stress among employees reduced their work performance ($r = -0.24$). The result of a study by revenio jalagat (2017) shows strong correlation between job stress and employee performance^[30]. There are many reasons for the occurrence of stress like work conflict, family matters, work overload, and role ambiguity, along with all these reasons, our study sample also had academic overload which added up to the reduced work performance in some.

People in order to achieve higher grades in academics tend to neglect their work duties which results in

reducing their work performance and eventually reducing the employers work productivity. Sometimes their absenteeism is also increased due to academics. Balancing both study and work at the same time is indeed a challenge which results in individual's psychological health being compromised.

Conclusion

The study concluded that there was a considerable prevalence of depression, anxiety and stress seen in nearly half of the participants. Along with that it also indicated that higher levels of depressive, anxiety and stress symptoms affected academic performance in the sample. Similarly, a significant negative relationship of depression, anxiety and stress with work performance was found in the individuals of the study. There are many reasons for the occurrence of mental health problems in individuals like work conflict, family matters, work overload, and role ambiguity, along with all these reasons, our study sample also had academic overload which added up to the reduced work performance in some.

Limitation

This appears to be first study to explore the impact of depression, anxiety and stress on the academic and work performance. Limitation of this study is that all of the study data were self-reported, which may have introduced bias. However, self-report is often the only feasible strategy to gather information concerning workers' working conditions. The cross-sectional design of this study does not allow for assessments of changes in psychological status over time. The sample collection did not include individuals with similar academic situations as some were about to appear for exams, some were on their exams while some had already finished their exams. Also we did not include participants with similar job profile in our study.

Future Scope

Future studies should include intervention strategies to help people cope up with their psychological problems. Future studies should also focus on time management strategies for such individuals to manage work and study together. Further research should include individuals studying while working full-time after secondary school. Further research should also include individuals with similar academic situations and job profile. Further research should be done on the comparison between individuals who are working and studying together with those who are either studying or working.

Recommendations^[1]

The following are some recommendations in an effort to promote mental health in workplaces. To follow WHO guidelines which are; increasing an employer's awareness of mental health issues, Creating a balance between job demands and occupational skills, developing the psychosocial climate of the workplace. Provision of counselling, Enhancement of working capacity, Early rehabilitation strategies, Legislation and policy regarding mental health; not only in the public domain but also with regards to the workplace should be set up and strictly adhered to, Framework to ensure correct, swift diagnosis for mental disorders as well as rehabilitator facilities to ensure smooth and quick recovery.

Acknowledgement

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References

1. Rao S, Ramesh N. Depression, anxiety and stress levels in industrial workers: A pilot study in Bangalore, India. *Industrial psychiatry journal*. 2015 Jan;24(1):23.
2. World Health Organization. The World Health Report 2001: Mental health: new understanding, new hope.
3. Ganguli H. Epidemiological findings on prevalence of mental disorders in India. *Indian journal of psychiatry*. 2000 Jan;42(1):14.
4. Ramón-Arbués E, Gea-Caballero V, Granada-López JM, Juárez-Vela R, Pellicer-García B, Antón-Solanas I. The prevalence of depression, anxiety and stress and their associated factors in college students. *International Journal of Environmental Research and Public Health*. 2020 Oct;17(19):7001.
5. Gunnarsson AB, Hedberg AK, Håkansson C, Hedin K, Wagman P. Occupational performance problems in people with depression and anxiety. *Scandinavian Journal of Occupational Therapy*. 2021 Feb 2:1-1.
6. Awadalla S, Davies EB, Glazebrook C. A longitudinal cohort study to explore the relationship between depression, anxiety and academic performance among Emirati university students. *BMC psychiatry*. 2020 Dec;20(1):1-0.
7. MELLAL AA, ALBLUWE T, AL-ASHKAR DA. The prevalence of depressive symptoms and its socioeconomic determinants among university students in Al Ain, UAE. *Education*. 2014 Jan;159:26-3.
8. Mirzaei M, Ardekani SM, Mirzaei M, Dehghani A. Prevalence of depression, anxiety and stress among adult population: Results of Yazd health study. *Iranian journal of psychiatry*. 2019 Apr;14(2):137.
9. Wahed WY, Hassan SK. Prevalence and associated factors of stress, anxiety and depression among medical Fayoum University students. *Alexandria Journal of medicine*. 2017;53(1):77-84.
10. Alsaleem MA, Alsaleem SA, Al Shehri S, Awadalla NJ, Mirdad TM, Abbag FI, Mahfouz AA. Prevalence and correlates of university students' perceived stress in southwestern Saudi Arabia. *Medicine*. 2021 Sep 9;100(38).
11. Chan SL, Takemura N, Chau PH, Lin CC, Wang MP. Psychological impact of the covid-19 pandemic on licensed full-time practicing nurses undertaking part-time studies in higher education: A cross-sectional study. *International journal of environmental research and public health*. 2021 Aug 13;18(16):8569.
12. Bisson KH. The effect of anxiety and depression on college students' academic performance: Exploring social support as a moderator.

13. Owens M, Stevenson J, Hadwin JA, Norgate R. Anxiety and depression in academic performance: An exploration of the mediating factors of worry and working memory. *School Psychology International*. 2012 Aug;33(4):433-49.
14. Rajgopal T. Mental well-being at the workplace. *Indian journal of occupational and environmental medicine*. 2010 Sep;14(3):63.
15. Sarokhani D, Delpisheh A, Veisani Y, Sarokhani MT, Manesh RE, Sayehmiri K. Prevalence of depression among university students: a systematic review and meta-analysis study. *Depression research and treatment*. 2013 Oct;2013.
16. Scott KM, Lim C, Al-Hamzawi A, Alonso J, Bruffaerts R, Caldas-de-Almeida JM, Florescu S, De Girolamo G, Hu C, De Jonge P, Kawakami N. Association of mental disorders with subsequent chronic physical conditions: world mental health surveys from 17 countries. *JAMA psychiatry*. 2016 Feb 1;73(2):150-8.
17. Niederkrotenthaler T, Tinghög P, Alexanderson K, Dahlin M, Wang M, Beckman K, Gould M, Mittendorfer-Rutz E. Future risk of labour market marginalization in young suicide attempters—a population-based prospective cohort study. *International journal of epidemiology*. 2014 Oct 1;43(5):1520-30.
18. Lun KW, Chan CK, Ip PK, Ma SY, Tsai WW, Wong CS, Wong CH, Wong TW, Yan D. Depression and anxiety among university students in Hong Kong. *Hong Kong Med J*. 2018 Sep 24;24(5):466-72.
19. Kerr DC, Capaldi DM. Young men's intimate partner violence and relationship functioning: long-term outcomes associated with suicide attempt and aggression in adolescence. *Psychological medicine*. 2011 Apr;41(4):759-69.
20. Swanson V, Broadbridge A, Karatzias A. Earning and learning: Role congruence, state/trait factors and adjustment to university life. *British Journal of Educational Psychology*. 2006 Dec;76(4):895-914.
21. Nabipour, A. R., Gholami, H., Amini, A., Riahi, S. M., Ghanbarifar, S., Zirak Moradlou, H. Prevalence of depression and its related factors in Pishva District Health Network employees in 2013. *Health and Development Journal*, 2015; 3(4): 323-332.
22. Edimansyah BA, Rusli BN, Naing L, Rusli BA, Winn T, Ariff BR. Self-perceived depression, anxiety, stress and their relationships with psychosocial job factors in male automotive assembly workers. *Industrial health*. 2008;46(1):90-100.
23. Nyayieka MA, Nyagwencha SK, Nzyuko S. Correlation of clinical depression, anxiety and academic performance of adolescents in selected secondary schools in Kenya. *American Journal of Applied Psychology*. 2020;9(1):14-21.
24. Khurshid, Shumaila & Parveen, Qaisara & Yousuf, M. & Chaudhry, Dr. Abid. (2015). EFFECTS OF DEPRESSION ON STUDENTS' ACADEMIC PERFORMANCE. *Science International* 1013-5316. 27. 1619-1624 .
25. Muhammad GA, Ramadhan S, Lailiyah SU, Ningtyas SF, Ramadhania F. correlation between academic stress and student's organizational performance in schools of publichealth and life sciences: a cross-sectional study. *Journal of Community Mental Health and Public Policy*. 2023 Oct 1;6(1):16-23.

26. Jamil H, Alakkari M, Al-Mahini MS, Alsayid M, Al Jandali O. The impact of anxiety and depression on academic performance: a cross-sectional study among medical students in Syria. *Avicenna Journal of Medicine*. 2022 Jul;12(03):111-9.
27. Taborosi, Srdana & Berishaj, Dorontinë. (2022). The impact of depression on work performance in teleworkers in Serbia. *Journal of Engineering Management and Competitiveness*. 12. 65-76. 10.5937/jemc2201065T.
28. Jones MK, Latreille PL, Sloane PJ. Job anxiety, work-related psychological illness and workplace performance. *British Journal of Industrial Relations*. 2016 Dec;54(4):742-67.
29. Rehman MZ, Shakoor K, Nawaz MA. Impact of Depression and Anxiety on Employee Performance: An Empirical Analysis. *Pakistan Languages and Humanities Review*. 2022 Jun 30;6(2):115-24.
30. Revenio Jalagat. Determinants of Job Stress and Its Relationship on Employee Job Performance. *American Journal of Management Science and Engineering*. Vol. 2, No. 1, 2017, pp. 1-10. doi: 10.11648/j.ajmse.20170201.11