Survey Of Self-Reported Psychological Variables: A Comparison Of Intercollegiate Athletes And Non-Athletes

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Abstract

Background Purpose: Each country spends a lot of money on education. However, a study of college students reveals that between 10 and 20 percent of the student body is currently experiencing psychological issues (depression, anxiety, and stress). This research comprehensively examined academic anxiety, stress, and mental health in addition to the effects of gender and year of enrollment on these psychological issues. Method: A sample of 204 (males=204; females=206) with 231 athletes and 179 non-athletes was selected and participated in the cross-sectional survey. Properly developed structured adapted scales were used to measure all the variables including academic anxiety, stress, and mental health. Statistical tests including Pearson correlation, regression, t-test and ANOVA were used for testing of the hypotheses. Computer software namely Statistical Package for Social Sciences (SPSS) Version 25 was used. Results: According to the results, academic anxiety is significantly correlated with mental well being of athletes (r=.530). Likewise, academic stress is significantly correlated with mental well being of athletes (r=.688). Regression analysis also indicated a positive and significant of anxiety and academic stress on mental wellbeing of athletes (p < 0.05). Furthermore, the 'r' value of -.222** indicated a negative correlation between anxiety and mental health of non-athletes. Similarly, the 'r' value of -.067 indicated a negative correlation between academic stress and mental health of non-athletes. Regression analysis also reported that anxiety (B = -.698) and academic stress (B - .437) have significantly negative effect on mental wellbeing of non-athletes. Additionally, it has been found that gender and academic year of the participants did not produce any significant effect on changing the mean score of respondents on research variables anxiety, academic stress and mental health (p > 0.05) Conclusion: Based on the data analysis, it has been concluded that sports play a very significant role in coping with academic anxiety, stress and mental health of the students.

Keywords: Effects, anxiety, academic stress, mental wellbeing, athletes & Non-athletes

INTRODUCTION

Students experience an unusually high number of pressures while in college. College in particular necessitates a big shift because it exposes kids to new cultures, friends, roommates, lifestyles, and ways of thinking. Students are more likely to struggle if they can't handle these firsts. Stressors related to academics might lead to feelings of inadequacy. Competition is much more important in college. Therefore, whether the demands originate from parents or pupils, there is a perceptible pressure to perform well (Bhujade, 2017).

Each individual player in a sports team has a unique orientation and perspective, and these variances might occasionally hinder the team's effectiveness. Each person will perform better if they combine their individual motivations and skills to work as a cohesive unit (Pant, 2015a). The internal adjustment of a team, or how closely the team appears to be working and feeling together, determines the team's success. The effectiveness of the performance is influenced by the psychological cohesion of the team members. As a result, group dynamics and performance are interdependent, with the stability of the team's members having an additional impact (Pant, 2015b).

It has been discovered that stronger group cohesion typically results in better performance. High academic stress levels among college students also contribute to psychological problems such anxiety and stress. For the advantage of the college students, understanding academic anxiety, stress, and mental health is necessary (Lee, Jeong, & Kim, 2021). Hence, the current study was conducted to examine and important psychological elements of academic anxiety and stress and their relationship with mental wellbeing of two different groups i.e, athletes, and non-athletes at college level.

LITERATURE REVIEW

Students stand for society's future investment. Their mental health and wellbeing are crucial for both their own sake and as a factor in the overall well-being of society. Between 2% and 50% of students report having psychological issues of anxiety and stress. Every ten students will experience academic anxiety and stress that are serious enough to warrant professional assistance at any given time. Student anxiety and stress are two frequent mental health pressure problems among student population. Common stressors in college include increased academic obligations, being on your own in a new environment, changes in family relationships, and changes in social life, and exposure to new people, ideas, and temptation (Yikealo, Yemane & Karvinen, 2018). College students today frequently have more complex difficulties than they did over ten years ago. Time pressure, failure dread, the fight to find one's identity, the demand for academic brilliance, and difficult competence are a few of the major issues that are unique to college students. Emotional issues such feeling inferior to others, being unable to think clearly, worrying excessively, or believing that life is not worth living (Jia & Loo, 2018).

Anxiety is a response that can be experienced by anyone, from young to old. There are two types of anxiety in humans, the first is pathological anxiety in moods, and the second is anxiety disorders in the form of acute stress induced using unexpected threats. According to Mahajan (2015) academic anxiety, is anxiety relating to educational institutions and a mental insensitivity to anxiety or difficulties in responding to school or college conditions. Academic anxiety one form of anxiety contained in educational institutions this can be interpreted that academic anxiety occurs by those within the scope of educational institutions. Academic anxiety is something that can occur both from elementary school level, junior high school, high school, and college. Academic anxiety has effects that occur to students, such as distracted concentration, distracted attention, excessive anxiety, tension, fear to have delays and avoidance of assignments in academic so that it can also affect academic achievement (Killu, Marc, & Crundwell, 2016).

Stress is a major component of our lives and is fairly common. Stressful conditions cause negative emotional, cognitive, physiological, and behavioural changes in a person (Slavish, 2016). Students in college are particularly susceptible to stress. It may have both beneficial and bad effects on the students at college level (Bulo & Sanchez, 2014). Although higher levels of stress negatively impact an individual's performance during tasks, moderate or acceptable amounts of stress encourage achievement and foster innovation (Bhujada, 2017). The two main sources of stress for students are academics and exams. Academic stress is the term for stress related to academics (Yikealo et al., 2018). The student experiences stress as a result of academic activities. Academic stress has recently become a major worry. education is becoming Higher increasingly competitive on a daily basis. Students are under pressure to do well on exams and in class (Karaman et al., 2019). Academic stress is caused by assignments, a lack of time to study a large amount of material, difficulty understanding lectures, and poor facilities at academic institutions (Tripathi & Sharma, 2013). Due to their own, teachers', and parents' expectations, students experienced academic stress as well. Academic stress has an impact on students' mental health and wellbeing. Emotional and internalized issues were brought on by higher levels of academic stress (Barbayannis et al., 2022).

Our emotional, psychological, and social well-being is all parts of our mental wellbeing. It influences how

we feel, think, and behave and influences how we handle stress, interact with others, and make decisions. Every period of life, from childhood and adolescence to maturity, is vital for mental health. If a person has mental health issues throughout his or her life, it may have an impact on his or her thoughts, mood, and behavior. A mental health disorder might make it challenging to work, finish school, maintain a regular schedule, maintain hygiene, have good relationships, and more. According to Blanco et al. (2008), mental health problems among college students are common. This could be because both regular and non-traditional undergraduate students find it difficult to adjust to college life. Traditional college students are typically younger, rely on their parents for financial support, start their studies after high school graduation, do not work full-time or only part-time, and are often younger (Pedrelli et al., 2015). These students may also experience stress to handle more from having adult-like responsibilities because they have not yet acquired the skills and cognitive maturity of adulthood. For instance, many average college students may experience potentially stressful events for the first time, such as working, being in a serious relationship that could lead to marriage, or relocating with people who come from a different culture or who practice a different religion than they do. Non-traditional college students may have dependents outside their spouses in addition to being older and typically working full-time (Arnett, 2000).



Theoretical Framework

Development of Hypotheses Athletes-related Hypotheses H_A 1 Anxiety and academic stress are significantly and positively associated with mental wellbeing of athletes.

H_A 2 Anxiety and academic stress have significantly effect on mental wellbeing of athletes.

 H_0 3 There exist no significant difference between male and female athletes' anxiety and academic stress, and mental wellbeing of athletes.

 H_0 4 There exist no significant difference in athletes' anxiety and academic stress, and mental wellbeing based on their year of enrollment in the college.

Non-athletes related Hypotheses

 H_0 5 Anxiety and academic stress are not significantly and positively associated with mental wellbeing of non-athletes.

 H_A 6 Anxiety and academic stress have significantly negative effect on mental wellbeing of non-athletes.

 H_0 7 There exist no significant difference between male and female non-athletes' anxiety and academic stress, and mental wellbeing of athletes.

 H_0 8 There exist no significant difference in athletes' anxiety and academic stress, and mental wellbeing based on their year of enrollment in the college.

RESEARCH METHODOLOGY

Research Design

The current study aimed to assess the academic anxiety and stress and their association with mental health of athletes and non-athletes at college level, therefore; descriptive research design with crosssectional survey approach was used.

Population and Sampling

The college students constituted population of the current study. Both athletes and non-athletes included in the study .The age limit were 18-23. For this purpose a complete list of both the boys and girls college was obtained from Directorate of colleges, Punjab, Pakistan.

As the study population was very vast and scattered, therefore sampling process was used. Keeping in view the nature of the study, stratified random sampling was used based on the ratio of the students in each college (Schaurer & Weib, 2020). For this purpose, a table suggested by Kerjicie and Morgan (1970) was followed. Complete details have been given in the table 3.1.

S. No	Number of Male Colleges	Total Population	% Sample	Sample Size			
1	04	680	30%	204			
2	04	687	30%	206			
Total	08	1363	30%	410			

Table 3.1 Showing detailed description of the athletes and non-athletes

Research Instruments Used

As the story of the current study evolved around three main variables, therefore; three different scales/tools were used to measure each variable accordingly. For this purpose, various scales/ standardized tools were not only surveyed but also studied the application of these scales in the field. After a thorough review of various scales, the researcher decided to adapt the following scales.

- i. State-Trait Anxiety Inventory for Adults
- ii. Academic Stress Scale

iii. The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)

Development of the Instruments

The initial drafts of the scales were administered to the teachers working in the colleges to get their responses on the items included in the scales. These items were than discussed with experts in the field at different intervals to determine the relevancy, appropriateness, and meaningfulness of the items. After scrutiny, 30 items were excluded from State-Trait Anxiety Inventory for Adults, 24 items were excluded from Academic Stress Scale, and 6 items were excluded from Warwick-Edinburgh Mental Well-being Scale (WEMWBS). Finally, a set of 10 items for State-Trait Anxiety Inventory for Adults, 10 items for Academic Stress Scale, and 14 items for Warwick-Edinburgh Mental Well-being Scale (WEMWBS) was prepared for try out purpose.

Pre-Trying Out the Scales

The developed draft of the scales was administered to 100 college level athletes and non-athletes keeping in view the gender equity. It is important to mention that these students did not include in the actual survey. All the students were encouraged to fill the scales without any hesitation. They were given liberty to give their opinion on the difficulty, ambiguity, and changes in languages and sentence construction of the items. Their suggestions were accordingly incorporated and final draft of the scales was sued for reliability.

Reliability

A test-retest method was used to determine the reliability of the scales. The scales were again administered on 100 athletes and non-athletes after a month on the same sample. The correlation between the scores obtained in first test and second test provided test-retest coefficient of reliability. The reliability coefficients of the three scales were found 0.89, 0.86, & 0.85 respectively for State-Trait Anxiety Inventory for Adults, Academic Stress Scale, and The Warwick-Edinburgh Mental Well-being Scale (WEMWBS). The obtained reliability scores are considered as quite satisfactory.

Validity

Cross validity was used on a sample of 100 college level athletes and non-athletes. For this purpose, criterion related validity method was used by correlating the scores obtained from athletes and non-athletes with the scores obtained by the subjects in original scales. The validity coefficient scores were measured as 0.90, 0.87, & 0.84 respectively for State-Trait Anxiety Inventory for Adults, Academic Stress Scale, and The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) which are significant beyond 0.01 levels.

Statistical Analysis

Keeping into consideration the objectives and design of the study, descriptive and inferential statistical tests were used for analysis and then interpretation of the data. Frequency and percentage were used to analyze the demographic attributes of the participants. Pearson correlation coefficient was used to examine the association among academic anxiety, academic stress, and mental health of athletes and non-athletes. Linear regression was used to examine the cause and effect relationship among academic anxiety, academic stress, and mental health of athletes and non-athletes. T-Test was applied to find out the group mean differences on academic anxiety, academic stress, and mental health between males and females. One-way ANOVA was used to find out the group mean differences on academic anxiety, academic stress, and mental health based on the enrollment of students in college.

Summary of Hypotheses

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S. No	Hypothesis	Test Applied	Remarks				
HA 1	Anxiety and academic stress are significantly and	Pearson	Accepted				
	positively associated with mental wellbeing of athletes.	Correlation					

Table 3.2 Summary of the Hypotheses

HA 2	Anxiety and academic stress have significantly effect	Linear	Accepted
	on mental wellbeing of athletes.	Regression	
H ₀ 3	There exist no significant difference between male and female athletes' anxiety and academic stress, and mental wellbeing of athletes.	t-Test	Accepted
H ₀ 4	There exist no significant difference in athletes' anxiety and academic stress, and mental wellbeing based on their year of enrollment in the college.	ANOVA	Accepted
HA 5	Anxiety and academic stress are not significantly and positively associated with mental wellbeing of non-athletes.	Pearson Correlation	Accepted
HA 6	Anxiety and academic stress have significantly negative effect on mental wellbeing of non-athletes.	Linear Regression	Accepted
H ₀ 7	There exist no significant difference between male and female non-athletes' anxiety and academic stress, and mental wellbeing of athletes.	t-Test	Accepted
H ₀ 8	There exist no significant difference in non-athletes' anxiety and academic stress, and mental wellbeing based on their year of enrollment in the college.	ANOVA	Accepted

RESULT AND DISCUSSION

Section A) Demographics

Table 1Gender-based frequency and percentage (n=410)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	204	49.8	49.8	49.8
	Female	206	50.2	50.2	100.0
	Total	410	100.0	100.0	

Table 1 present gender-wise detail of the participant. According to the task 206 with 50.2% were female and 204 with 49.8% were males. It

means that female ratio was found grater then the male.

Table 2Category-wise frequency and percentage (n=410)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Athlete	231	56.3	56.3	56.3

non-Athlete	179	43.7	43.7	100.0
 Total	410	100.0	100.0	

Table 2 highlights the details of the participant. According to the task 231 with 56.3% were Athletes and 179 with 43.7 % were non-athletes. It means that athlete's ratio was found grater then non-athletes.

A normality test assesses whether a sample of

data is representative of a population that has a

normal distribution. It is typically carried out to

see if the research's data have a normal

distribution. The normal distribution of data is the

foundation for many statistical techniques, including correlation, regression, t-tests, and

ANOVA, sometimes known as parametric tests.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st Year	45	11.0	11.0	11.0
	2nd year	101	24.6	24.6	35.6
	3rd year	207	50.5	50.5	86.1
	4th Year	57	13.9	13.9	100.0
	Total	410	100.0	100.0	

Table 3 Year of enrollment-wise frequency and percentage (n=410)

Table 3 shows the details of the participant. According to the task 45 with 11.0 % participants of 1^{st} year, 101 with 24.5 % of 2^{nd} year,207 with 50.5 of 3^{rd} year and 57 with 13.9 % participants of 4^{th} year. The results indicate that 3^{rd} year ratio was found high then others.

Section B) Data Normality

Table 4Tests of Normality for Anxiety Scale

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-W	Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.	
Anxiety	.096	410	.117	.979	410	.079	

a. Lilliefors Significance Correction

The Sig. value for Kolmogorov-Smirnov^a (.117) is found greater than the significant value (Sig. >

0.05). Therefore, it can be said that the data is normally distributed.





Table 5Tests of Normality for Academic Stress

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-W	Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.	
Academic Stress	.064	410	.077	.989	410	.053	

a. Lilliefors Significance Correction

The Sig. value for Kolmogorov-Smirnov^a (.077) is found greater than the significant value (Sig. >

0.05). Therefore, it can be said that the data is normally distributed.



Figure 2 Showing Histogram for Academic Stress

Table 6Tests of Normality for Mental Well-being

Tests of Normality

	Kolmogorov-Smirnov ^a		Shapiro-W	Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Mental Wellbeing	.048	410	.153	.992	410	.109	

a. Lilliefors Significance Correction

The Sig. value for Kolmogorov-Smirnov^a (.153) is found greater than the significant value (Sig. >

0.05). Therefore, it can be said that the data is normally distributed.



Figure 3 Showing Histogram for Mental Wellbeing

Section C) Testing of Hypothesis

Correlations

The strength and direction of the linear link between the two variables are measured by correlation. A perfect negative correlation would have a correlation coefficient of -1, a perfect positive correlation would have a correlation value of +1, and a correlation coefficient of zero would have no correlation at all.

H_A 1 Anxiety and academic stress are significantly and positively associated with mental wellbeing of athletes.

Table	7 Results	of Pearson	Correlation
I able	/ Kesuits	of Pearson	Correlation

	Athletes Academic	
 Athletes Anxiety	Stress	Mental Wellbeing

Athletes Anxiety	Pearson	1	.253**	.530**
	Correlation			
	Sig. (2-tailed)		.000	.000
	Ν	231	231	231
	Pearson	.253**	1	$.688^{**}$
	Correlation			
Athletes Academic	Sig. (2-tailed)	.000		.000
Stress	Ν	231	231	231
Mental Wellbeing	Pearson	.530**	.688**	1
	Correlation			
	Sig. (2-tailed)	.000	.000	
	Ν	231	231	231

**. Correlation is significant at the 0.01 level (2-tailed).

The H1 was established to examine the correlation among anxiety, academic stress, and mental wellbeing of athletes and the results are presented in table 7. According to the table, athletes anxiety is significantly correlated with mental well being of athletes (r=.530). Likewise, academic stress is significantly correlated with mental well being of athletes (r=.688). In the same table, the p-values for both the predictors (athletes' anxiety and academic stress) were noted as .000, that is less than the significant level (p=.000 < 0.01). Hence, the obtained results are statistically significant. Therefore, results have affirmed the occurrence of positive and significant association among anxiety, academic

stress, and mental wellbeing of athletes. Henceforth, H1 is accepted as true.

H_A 2 Anxiety and academic stress have significantly effect on mental wellbeing of athletes.

Table 8 Results of Linear Regression

Model Summary is the first table produced by a linear regression test in SPSS. It provides information in-depth about the model's properties. The key factors taken into account in this case were athletes' anxiety, academic stress, and mental health. The table below is a summary of the model.

Model Summary							
				Std. Error of the			
Model	R	R Square	Adjusted R Square	Estimate			
1	.780 ^a	.609	.605	.24795			

a. Predictors: (Constant), Academic Stress, Anxiety

The following table's elements are important for understanding the findings:

i. The R-value shows how closely the dependent and independent variables are correlated. For further examination, a number that is taken is more than 0.4.

The value in this instance is.780, which is favourable.

 R-square displays the overall variation for the dependent variable that the independent factors may account for. A number higher than 0.5 indicates that the model is capable of identifying the relationship. The value in this instance is.609, which is favourable.

iii. In multiple regressions, adjusted R-square demonstrates the generalisation of the results, or the variance of the sample results from the population. A minimal difference between R-square and Adjusted R-square must exist. The value in this instance is.605, which is good.

ANOVA ^a								
Model		Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	21.820	2	10.910	177.460	.000 ^b		
	Residual	14.017	228	.061				
	Total	35.837	230					

a. Dependent Variable: Mental Wellbeing

b. Predictors: (Constant), Academic Stress, Anxiety

The following table's elements are important for understanding the findings:

- P-value/Sig value: Typically, the study's significance level is set at the 5% level or the 95% confidence interval. Consequently, the p-value must be lower than 0.05. It is.000 in the table above. The outcome is significant as a result.
- ii. **F-ratio:** After accounting for the model's inherent inaccuracy, it shows an improvement in the variable's prediction when the model is fitted. A value for the F-ratio yield efficient model is larger

than 1. The value is 177.4 in the table above, which is good.

These findings suggest that the null hypothesis may be rejected in further analysis because the pvalue of the ANOVA table is below the acceptable level of significance.

Table 8b Table of Coefficient

The relationship's strength, or how important a variable is to the model and how much it affects the dependent variable, is shown in the table below. The hypothesis testing for a study is aided by this analysis.

Coeffici	Coefficients ^a									
				Standardized						
Model		Unstandardi	ized Coefficients	Coefficients	t	Sig.				
		В	Std. Error	Beta						
1	(Constant)	025	.163		155	.877				
	Anxiety	.488	.055	.380	8.887	.000				
	Academic	.592	.043	.592	13.826	.000				
	Stress									

a. Dependent Variable: Mental Wellbeing

The model summary table is sufficient to go on to the following step as a result. If the values were unsatisfactory, the data would need to be adjusted in order to get the intended outcomes.

Table 8a Table of ANOVA

In a regression test using SPSS, this is the second table. It establishes whether the model is reliable enough to predict the result. It appears as below. Sig. value is the only value that matters in the interpretation process. The value should be less than the study's acceptable level of significance, which for this study is less than 0.05 for the 95% confidence range. The validity of the null hypothesis is determined by the significant value.

The null hypothesis is rejected if Sig. 0.05. The null hypothesis is not rejected if Sig. > 0.05. Rejecting the null hypothesis indicates that there is an impact. However, if a null hypothesis is not disproved, it indicates that no effect exists.

In the present case, the p-values were noted as .000, which is less than the significant level. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. Hence, it can be concluded that significant change in mental wellbeing due to anxiety and academic stress among athletes. This is because of the Sig. value is 0.00, which is less than the acceptable limit of 0.05.

 H_0 3 There exist no significant difference between male and female athletes' anxiety and academic stress, and mental wellbeing of athletes.

Anxiety					`Levene's Test for Equality of Variance		T-Test For Equality of Means		y of
Gender	N	Mean	Std. Deviation	Std. Error Mean	F	Sig	t	Df	Sig. (2- Tailed)
Male Female	121 110	2.5298 2.5000	.35347 .24793	.03213 .02364	12.736	.000	.734 .746	229 215.533	.464 .457
Academic Stress ^{`Levene's Test for T-Test} Equality of Variance Means		T-Test F Means	For Equalit	y of					
Gender	N	Mean	Std. Deviation	Std. Error Mean	F	Sig	t	Df	Sig. (2- Tailed)
Male Female	121 110	2.9405 2.9573	.42868 .35542	.03897 .03389	2.202	.139	322 325	229 227.123	.748 .746
Mental Wellbein	ng				`Levene's Equality o	Test for f Variance	T-Test F Means	For Equalit	y of
Gender	N	Mean	Std. Deviation	Std. Error Mean	F	Sig	t	Df	Sig. (2- Tailed)
Male Female	121 110	2.9868 2.9064	.42391 .36979	.03763 .035226	.795	.374	1.551 1.559	229 228.934	.122 .120

Table 9Results of t-Test

The H_0 3 was formulated to analyze the genderbased differences on anxiety, academic stress, and mental wellbeing in athletes and the results obtained through SPSS by applying t-Test have been presented in table 9. According to the table, the mean score of male athletes on all three variables were not statistically difference than male athletes. Likewise, the result of Leven's test for equality of variance shows the p-values (sig. (2-tailed) (anxiety=.457; academic stress=.746;

mental wellbeing=.120) (p > .05) so, homogeneity of variance can be assumed. The analysis presented that in case of comparing the anxiety, academic stress, and mental wellbeing of male athletes and female athletes, the 'p' values are greater than the significant level (p > 0.05). Hence, it is not significant at 0.05 levels and H₀ 3 is accepted. So it can be interpreted that male athletes are not statistically different from female athletes in anxiety, academic stress, and mental wellbeing.

 H_0 4 There exist no significant difference in athletes' anxiety and academic stress, and mental wellbeing based on their year of enrollment in the college.

Table 10 Results of ANOVA

The one-way ANOVA test allows us to determine whether there is a significant difference in the mean distances thrown by each of the groups.

One-way Two crucial tables, Descriptive and ANOVA, are provided by ANOVA. The descriptive section offers a number of highly helpful descriptive data, such as the mean, standard deviation, and 95% confidence intervals for the dependent variable (anxiety) for each individual group (first year, second year, third year, and fourth year), as well as when all groups are combined (Total). When you need to describe your data, these figures come in handy.

Variable	Qualification	Ν	Mean	Std. Deviation	F	Sig.	
	1 st Voor	25	2 5080	19466			
	2^{nd} Year	23 58	2.5080	.34448			
Anxiety	3 rd Year	106	2.5047	.27129	1.227	.952	
	4 th Year	42	2.5262	.39513			
	Total	231	2.5156	.30747			

The results of the ANOVA analysis are shown in the second section, together with information on whether there is a statistically significant difference between the group means. As we can see, the significant value is more than 0.05 and is equal to.952 (p = .952). As a result, there is no statistically significant difference between the anxiety scores of athletes enrolled in the first, second, third, and fourth years of the study. As a result, we are unable to use the Multiple Comparison table, which contains the Tukey post hoc test results. Therefore, it can be concluded that there is no statistically significant difference between the levels of anxiety among athletes enrolled in various college years.

Year of Enrollment wise ANOVA Statistics

Variable	Qualification	Ν	Mean	Std. Deviation	F	Sig.
Academic Stress	1 st Year	25	2.8920	.35814		.849
	2 nd Year	58	2.9534	.42888	2.027	
	3 rd Year	106	2.9462	.36883		
	4 th Year	42	2.9810	.43798		

Year of Enrollment wise ANOVA Statistics

Total	231	2.9485	.39473
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Likewise, this table shows that the significance value is .849 (i.e., p = .849), which is greater than 0.05. And, therefore, there is not a statistically

Year of Enrollment wise ANOVA Statistics

significant difference in the academic score of athletes enrolled in different years i.e., first year, second year, third year, and fourth year

Variable	Qualification	Ν	Mean	Std. Deviation	F	Sig.	
	1 st Year	25	2.8320	.39971			
	2 nd Year	58	2.9690	.42103			
Wallhaina	3 rd Year	106	2.9245	.37842	.987	.138	
wendering	4 th Year	42	3.0500	.38271			
	Total	231	2.9485	.39473			

Similarly, this table shows that the significance value is .138 (i.e., p = .138), which is greater than 0.05. And, therefore, there is not a statistically significant difference in the mental wellbeing score of athletes enrolled in different years i.e., first year, second year, third year, and fourth year.

Based on the analysis, H_04 is retained and accepted as true.

 H_0 5 Anxiety and academic stress are not significantly and positively associated with mental wellbeing of non-athletes.

Correlations				
		Non- Athlete	Non- Athlete	Mental
		Anxiety	Academic Stress	Wellbeing
	Pearson	1	702**	222**
Non- Athlete	Correlation			
Anxiety	Sig. (2-tailed)		.000	.003
	Ν	179	179	179
	Pearson	702**	1	067
Non- Athlete	Correlation			
Academic Stress	Sig. (2-tailed)	.000		.376
	Ν	179	179	179
	Pearson	222**	067	1
Montol Wollbaing	Correlation			
Mental wendering	Sig. (2-tailed)	.003	.376	
	Ν	179	179	179

Table 11 Results of Correlation

**. Correlation is significant at the 0.01 level (2-tailed).

Pearson correlation coefficient gives two important sections of information (Pearson's r and 2-tailed significance value. In this case the 'r' value of -.222** indicated a negative correlation between anxiety and mental wellbeing of non-athletes. Likewise, the 2-tailed significance value for anxiety and mental wellbeing of non-athletes is < .000. The standard alpha value is 0.003, which means that our correlation is highly significant, not just a function of random sampling error, etc.

In the same table, the 'r' value was found as -.067, which indicated a negative correlation between academic stress and mental wellbeing of non-athletes. The 2-tailed significance value for

Table 12 Results of Linear Regression

academic stress and mental wellbeing of athletes is .376, which means that results are not significant. Therefore, the H_0 5 is partially accepted as true.

Conclusion: From the above results, it can be concluded that non-athletes have not the ability to cope with anxiety. On the other hand, the negative association of non-athletes indicated that non-athletes are not capable of coping with academic stress. Henceforth, it can said that an increase in anxiety and academic stress tend to decrease in the mental wellbeing of non-athletes. H_A 6 Anxiety and academic stress have significantly negative effect on mental wellbeing of non-athletes.

Model Su	mmary	0		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.382ª	.146	.137	.37718

a. Predictors: (Constant), Academic Stress, Anxiety

The 'R' value tells us the relationship between predictors (academic stress and anxiety) and criterion (mental well being) of non-athletes. The value of r=.382 and R Square .146 are not good enough.

ANOVA ^a							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	4.290	2	2.145	15.077	.000 ^b	
	Residual	25.039	176	.142			
	Total	29.328	178				

Table 12a Table of ANOVA

a. Dependent Variable: Mental Wellbeing

b. Predictors: (Constant), Academic Stress, Anxiety

This table shows an important value of sig, which is .000. These values suggest that the null hypothesis may be rejected and alternative hypothesis may be accepted in further analysis because the p-value of the ANOVA table is below the acceptable level of significance

Table 12b	Table of	Coefficients
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Coefficients ^a				
		Standardized		
Model	Unstandardized Coefficients	Coefficients	Т	Sig.

		В	Std. Error	Beta		
1	(Constant)	5.950	.561		10.600	.000
	Anxiety	698	.129	528	-5.407	.000
_	Academic Stress	437	.098	437	-4.474	.000

a. Dependent Variable: Mental Wellbeing

This table tells us an important value of Unstandardized Coefficients (B). This value represents the slope of the line between the predictor variable and the dependent variable. So for variable 1 Anxiety, this means that one unit increase in Anxiety will cause -.698 unit increases in mental wellbeing. Likewise, for variable 2 academic stresses, this means that one unit increase in academic stress will cause -.437 unit increases in mental wellbeing of nonathletes. Hence, H_A 6 stated that anxiety and academic stress have significantly negative effect on mental wellbeing of non-athletes is retained and accepted as true.

 H_0 7 There exist no significant difference between male and female non-athletes' anxiety and academic stress, and mental wellbeing of athletes.

Table 13 Results of t-Test

Anviata					`Levene's	Test for	T-Test F	For Equalit	y of
Allxlety	Equality of Variance				Means				
Gender	Ν	Mean	Std.	Std. Error	F	Sig	Т	Df	Sig.
			Deviation	Mean					(2-
									Tailed)
Male	83	2.4542	.28683	.03148	1.101	.295	-1.291	177	.198
Female	96	2.5135	.32269	.03293			-1.302	176.857	.195

A andomia Stragg					`Levene's	Test for	T-Test F	For Equalit	y of
Academic Stress					Equality of	of Variance	Means		
Gender	Ν	Mean	Std.	Std. Error	F	Sig	Т	Df	Sig.
			Deviation	Mean					(2-
									Tailed)
Male	83	2.9675	.39078	.04289	.447	.505	1.092	177	.276
Female	96	2.9010	.41814	.04268			1.098	175.909	.274

Montal Wall haing					`Levene's	Test for	T-Test F	or Equalit	y of
Mental wen bei	ing				Equality o	of Variance	Means		
Gender	Ν	Mean	Std.	Std. Error	F	Sig	Т	Df	Sig.
			Deviation	Mean					(2-
									Tailed)
Male	83	2.9108	.42196	.04632	.104	.748	643	177	.521
Female	96	2.9500	.39283	.04009			639	169.017	.524

The H₀ 7 was formulated to analyze the genderbased differences on anxiety, academic stress, and mental wellbeing in non-athletes and the results obtained through SPSS by applying t-Test have been presented in table 13. According to the table, the mean score of male non-athletes on all three variables were not statistically difference than male non-athletes. Likewise, the result of Leven's test for equality of variance shows the pvalues (sig. (2-tailed) (anxiety=.195; academic stress=.274; mental wellbeing=.524) (p > .05). The analysis presented that in case of comparing the anxiety, academic stress, and mental wellbeing of male non-athletes and female nonathletes, the 'p' values are greater than the significant level (p > 0.05). Hence, it is not significant at 0.05 levels and H₀ 7 is accepted. So it can be interpreted that male non-athletes are not statistically different from female non-athletes in anxiety, academic stress, and mental wellbeing.

 H_0 8 There exist no significant difference in athletes' anxiety and academic stress, and mental wellbeing based on their year of enrollment in the college.

Table 14 Results of One-way ANOVA

Variable	Qualification	Ν	Mean	Std. Deviation	F	Sig.	
	1 st Year	20	2.5600	.31855			
	2 nd Year	43	2.4163	.32214			
Anxiety	3 rd Year	101	2.5089	.30136	1.471	.224	
	4 th Year	15	2.4333	.26904			
	Total	179	2.4860	.30717			

Year of Enrollment wise ANOVA Statistics

Table 4.20a Results of One-way Anova

Year of Enrollment wise ANOVA Statistics

Variable	Qualification	Ν	Mean	Std. Deviation	F	Sig.
	1 st Year	20	2.8350	.42087		
	2 nd Year	43	3.0116	.43327		
Academic Stress	3 rd Year	101	2.9129	.39816	1.031	.380
	4 th Year	15	2.9600	.35010		
	Total	179	2.9318	.49591		

Table 4.20b Results of One-way Anova

Year of Enrollment wise ANOVA Statistics

Variable Qualificat	ion N	Mean	Std. Deviation	F	Sig.
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	20	2.9050	.36487		
Academic Stress 3 rd Ye	ear 45 ear 101	2.9381 2.9248	.43602	.100	.960
4 th Ye Total	ear 15 179	2.9400 2.9318	.37947 .40591		

To test this hypothesis, One-way ANOVA was applied and the results are presented in Tables 20, 20a and 20b. According to the above tables, the significance value is .224, .380 & .960 (i.e., p = .224, p = .380 & p = .960), which is greater than 0.05. And, therefore, there is not a statistically significant difference in the anxiety, academic stress, and mental wellbeing score of non-athletes enrolled in different years i.e., first year, second year, third year, and fourth year.

Based on the analysis, H_0 8 is retained and accepted as true.

Discussion

The current study was conducted to examine academic anxiety, stress, and mental wellbeing of the college students. Additionally, the association of anxiety and stress with mental health was also examined. Apart from these, the effects of gender and year of enrollment of college students on academic anxiety, stress and mental wellbeing were examined. After careful data analysis, the following discussion has been made.

The analysis has affirmed the occurrence of positive and significant association among anxiety, academic stress, and mental wellbeing of athletes. Furthermore, the analyzed data indicated that non-athletes have the not the ability to cope with anxiety. On the other hand, the negative association of non-athletes indicated that nonathletes are not capable of coping with academic stress. Henceforth, it can said that an increase in anxiety and academic stress tend to decrease in the mental wellbeing of non-athletes. The study's findings showed that academic anxiety, stress levels, and mental wellbeing varied significantly between male athletes and non-athletes as well as between female athletes and non-athletes. In both instances, non-athletes experienced greater levels of academic stress and anxiety than their athletic counterparts. Perhaps increased physical activity is to blame. Athletes engage in more physical exercise than nonathletes because they play sports frequently. Physical activity releases endorphins, or "feel good" hormones, which aid in lowering stress levels (Paluska & Schlenk, 2000). Both male and female athletes as well as male and female nonathletes had similar levels of academic stress and anxiety. Both male and female athletes and male and female non-athletes engage in roughly the same amount of physical activity. It is likely the cause of the lack of a discernible difference in academic stress between male and female athletes and male and female non-athletes. However, Razia (2016) discovered that there are notable gender disparities among college students when it comes to their stress and anxiety related to their academics. According to a study, female students experienced far greater academic stress than male students. Nazir and Jan (2017) compared the levels of academic stress faced by male and female college students in Jammu and Kashmir. Female students had much higher levels of academic stress than male students, according to Singh, Valsaraj, and Mohammad (2013). Martin (2018) examined 561 students at the University of Tennessee in Chattanooga and discovered no discernible variations in stress levels between collegiate athletes and non-athletes. In terms of gender disparities, female students had higher levels of stress than male students. Reddy, Karishmarajanmenon, and Anjanathattil (2018) examined the academic stress experienced by college students. They demonstrated that there was no obvious distinction between the students' genders. However, female students were slightly more stressed out about their academics than were male students.

In a nut shell, mental health issues are ubiquitous among college students, with the most prevalent ones being academic stress, anxiety, and mood disorders. College students are in the early stages of adulthood, a period of transition marked by a variety of pressures and the onset of many mental health issues. Students in college experience a great deal of stress due to their many responsibilities, demands, and financial obligations. Students in college who get a mental illness for the first time or start using drugs for the first time in childhood or adolescence appear to have a more harmful trajectory and course of illness. Comprehensive evaluations and early detection of college students with mental health issues are essential for ensuring better outcomes, such as graduation, and the provision of necessary services.

Conclusion

Psychological parameters such as academic anxiety, stress, and mental wellbeing were compared in the current study which focused two groups of athletes and non-athletes at college level. Findings showed that there is a positive and significant association of academic anxiety and stress with mental health of athletes. The same finding have been endorsed in regression analysis stated that academic anxiety and stress produced positive effects on mental health of athletes. It means that athletes were capable of coping with academic anxiety and stress as well. However, results indicated that non-athletes have the not the ability to cope with anxiety. Because, the negative association of non-athletes indicated that non-athletes are not capable of coping with academic anxiety and stress. Henceforth, it can said that an increase in anxiety and academic stress tend to decrease in the mental health of non-athletes.

When comparing the gender-based differences, the analyzed data reported no statistically significant difference between male and female athletes and non-athletes on academic anxiety, stress, and mental wellbeing. Likewise, no statistically significant difference was found in the anxiety, academic stress, and mental wellbeing score of athletes and non-athletes enrolled in different years i.e., first year, second year, third year, and fourth year.

Researchers in the field of sports psychology are working to find new ways to cope with psychological issues of anxiety, stress, and depression. Participation in sports and other exercises is considered as one of the new methods to cure and cope with psychological issues. Studies indicated that sports and exercises are beneficial for improvement in mental health and reduction of stress. The role of sports therapy in curing psychological issues and disorder has remained remarkable place for last several decades. The present study also suggests that the general doctors in addition to masses use sport to cure the psychological problems of stress, anxiety, and depression. Since, various studies examined the effects of sports on the psychological parameters of athletes and nonathletes, and it has been proved that sports activities have a very positive and significant effect of various psychological aspects of human beings. In the current study, athletes showed a positive association of anxiety and stress with mental health. It means that athletes have more reciprocity as compared with non-athletes and the sport participation provide more chances of showing their personal, social, and physiological abilities and capabilities. In analyzing the results based on norms of the anxiety, stress and mental

wellbeing statistically significant difference between athletes and non-athletes were obtained. The athletes' average score on anxiety and stress was average and below, while above average score was found on mental health scale. However, non-athletes reported wither above average score on anxiety and stress, while below average score on mental health, which can be improved by regular practice.

Recommendations

- i. The findings of the current study indicated negative relationship between anxiety, academic stress, and mental wellbeing in non-athletes. Lower are the academic anxiety and stress, higher is the mental health. Therefore, the principals of the concerned colleges may organize some counseling and clinician intervention program to reduce the stress and anxiety among students.
- Results of the present study indicated that non-athletes were unable to cope with academic anxiety and stress. Hence, variety of coping strategies helps in reducing anxiety and stress. In this regard, sports and regular exercises are suggested to ensure among students in educational institutions.
- iii. To reduce anxiety and stress, school administration may also organize orientation programs, workshops, and seminars for giving practical knowledge about stress management.
- iv. One of the leading reasons of stress is heaving workload among students. Hence, the schools authorities may set time table in such a way that students can take break and refresh themselves for their further classes. This will ultimately leads to reducing anxiety and stress.

Implications

- i. Academic anxiety, stress, and mental health are the most frequent mental health issues among college students.
- ii. It is crucial for mental health professionals to gain a thorough understanding of the prevalence and variety of mental health issues that college student's experience, as well as the different requirements of college students both athletes and non-athletes.
- iii. Communication is essential since college students may receive treatment from mental health specialists both on and off campus.
- iv. College students should adopt strategies to increase their participation and treatment seeking.

REFERENCES

- 1. Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. American psychologist, 55(5), 469.
- Barbayannis, G., Bandari, M., Zheng, X., Baquerizo, H., Pecor, K. W., & Ming, X. (2022). Academic stress and mental wellbeing in college students: correlations, affected groups, and COVID-19. Frontiers in Psychology, 13, 886344.
- Bhujade, V. M. (2017). Depression, anxiety and academic stress among college students: A brief review. Indian Journal of Health and Wellbeing, 8(7), 748-751.
- Blanco, C., Okuda, M., Wright, C., Hasin, D. S., Grant, B. F., Liu, S. M., & Olfson, M. (2008). Mental health of college students and their non–college-attending peers: results from the national epidemiologic study on alcohol and related conditions. Archives of general psychiatry, 65(12), 1429-1437.
- Bulo, J. G., & Sanchez, M. G. (2014). Sources of stress among college students. CVCITC Research Journal, 1(1), 16-25.

- Jia, Y. F., & Loo, Y. T. (2018). Prevalence and determinants of perceived stress among undergraduate students in a Malaysian University. Journal of Health and Translational Medicine (JUMMEC), 21(1).
- Karaman, M. A., Lerma, E., Vela, J. C., & Watson, J. C. (2019). Predictors of academic stress among college students. Journal of College Counseling, 22(1), 41-55.
- Killu, K., Marc, R., & Crundwell, A. (2016). Students with anxiety in the classroom: Educational accommodations and interventions. Beyond Behavior, 25(2), 30-40.
- Lee, J., Jeong, H. J., & Kim, S. (2021). Stress, anxiety, and depression among undergraduate students during the COVID-19 pandemic and their use of mental health services. Innovative higher education, 46, 519-538.
- Mahajan, G. (2015). Academic anxiety of secondary school students in relation to their parental encouragement. International Journal of Research in Humanities and Social Sciences, 3(4), 23-29. Killu, K., Marc, R., & Crundwell, A. (2016). Students with anxiety in the classroom: Educational accommodations and interventions. Beyond Behavior, 25(2), 30-40.
- 11. Martin, M. (2018). Comparing stress levels and coping styles in college athletes and non-athletes.
- Nazir, A., & Jan, T. (2017). A study on statetrait anxiety and academic stress among flood affected college students of Jammu & Kashmir, India. International Journal of Advanced Educational Research, 2(5), 387-392.
- Paluska, S. A., & Schlenk, T. L. (2000). Physical activity and mental health. Sports Medicine, 29(3), 167-180.
- Pant, G. (2015). Comparison of Emotional Stability and Academic Anxiety between Athletes and Non Athletes. International

Journal of Physical Education and Applied Exercise Science, 1(2), 41-44.

- Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2015). College students: mental health problems and treatment considerations. Academic psychiatry, 39, 503-511.
- Razia, B. (2016). Academic stress of adolescents in government and private schools. International Journal of Scientific Research, 5(1), 414-416.
- Singh, A. K., Valsaraj, K. M., & Mohammad, A. (2013a). Mental health between male physical education and non-physical education students: A comparative study. Academic Sports Scholar, 2 (6).
- Slavich, G. M. (2016). Life stress and health: A review of conceptual issues and recent findings. Teaching of Psychology, 43(4), 346-355.
- Tripathi, K., & Sharma, K. (2013). Causes of academic stress among college students and its managements. Indian Journal of Health and Wellbeing, 4(5), 1161.
- Yikealo, D., Tareke, W., & Karvinen, I. (2018). The level of stress among college students: A case in the college of education, Eritrea Institute of Technology. Open Science Journal, 3(4).