# Impact of Test Anxiety and Mindfulness on Academic Performance among University Students

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#### ABSTRACT

The present study aims to analyse the impact of test anxiety and mindfulness on academic performance among university students. The students at the time of test or evaluation face a high level of anxiety, which could badly affect their academic performance. Practicing mindfulness reduce the level of anxiety hence improves the academic performance. Many researchers in the past, studied the causes of test anxiety and low academic performance, and the role of mindfulness in reducing test anxiety and improving the academic performance. This research is quantitative in nature and the questionnaire survey was used to collect the data from the university students. The sample consisted of 350 students (190 males and 160 females) taken from the universities located in Multan district. The "Westside Test Anxiety Scale" is used for the measurement of test anxiety, the "Mindfulness Attention Awareness Scale" is used to measure mindfulness and the "Academic Performance Scale" is used for measuring Academic performance. The findings of the results showed that there is a significant relationship between test anxiety, mindfulness and academic performance among students, and there are differences in test anxiety, mindfulness and academic performance in terms of gender. Males have more test anxiety than females and females are high at mindfulness as compare to male, and less differences are found in academic performance among male and female students. Thus, on the basis of findings of this research, it is concluded that male students are more prone to undergo test anxiety and less at being mindful which are the negative qualities which suppress the academic performance. Moreover, this research will be benefited for other researchers in the field of social science particularly, psychology and public health with the literature to support their arguments and hence improved knowledge.

#### Keywords

test anxiety, mindfulness, academic performance

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### Introduction

Test anxiety is one of the forms of anxiety. In test anxiety, many thought responses and bodily responses that occur specially in testing environment or during such events that include assessment of any person, are involved (Burg, 2006). When a person writes a test, he/she faces performance and action anxiety. It has two main factors; one is emotional and the other one is tension. During test anxiety person suffers from fear, tension, vomiting, increased heartbeat, laziness and high respiration rate. Test anxiety can be called as social phobia (Drake, 2017). It includes psychological, procedural and actionable reactions that can also become responsible for disappointment in any exam or testing situation.

When a person suffers from test anxiety it can affect his/her academic actions as well as his/her

performance becomes too low, he/she suffers from such emotional condition that his/her inner state becomes unlikable and uproar and person behaves in confused manner. It is characterized by inner fear of failure, fear before test or fear of evaluation (Lowe et al. 2008). It includes the hidden and shown behavior during testing state. Test anxiety can also cause headache, over sweating, giddiness, frustration, hopelessness, difficulty in attention maintenance, negative cognitions and competition (Dan & Razz, 2015). Tension about success and malfunction, lack of training, poor test history, pressure given by parents, unrelated thoughts to test and hesitation are some of the factors that are responsible for test anxiety. Test anxiety occurs along a range, but some people say a person suffers from test anxiety always. Further, everyone has a different experience related to test anxiety (Shapiro, 2014).

Test anxiety is basically a person's reaction towards test giving. One third of elementary school students suffer from test anxiety. It is one of the most occurring anxieties among students in school (Peterman et al. 2016). Adolescents suffers than from anxietv more children. Manv instruments and programs related to test anxiety among youngsters are now being used and these programs contain many sessions which expand over the period of many weeks (Bradley et al. 2010). Moreover, test anxiety is multi-factorial process in which person thinks that he/she will not perform according to the established criteria as the result he/she gives emotional, full of tension and behavioral reactions (Chapel et al. 2005). Test anxiety causes many other problems like overanxious disorder, mental health issues (LeBeau et al. 2010), and anxiety disorders like social phobia, depression, low confidence, low self-esteem, lower academic performance, lower results and failure (Sogol et al. 2013).

If people at young age suffering from test anxiety are not treated early situation can become adverse. Due to the complexity of testing conditions and testing demands, number of students suffering from anxiety has been increased (Lowe et al. 2011). As most of the students suffer from test anxiety in elementary, so programs should be arranged to eliminate this anxiety among these students so that they can be protected from problems in higher schools (Sogol et al. 2013). Test anxiety programs and strategies should be used as universal school-based interventions. As school provides access to large number of students, so students in school with test anxiety should be treated with these interventions because test anxiety prevents students to engage in school environment. Additionally, Saravanan, Kingston, and Gin (2014) stated that test anxiety is made up of two factors or directions like tension and emotionality. Emotionality represents when a person possesses high level of insight regarding the arousal in judgmental situations e.g. test anxiety sufferers can show high level of self-doubt and low self-esteem and confidence before, during, and after the test. High degree of emotionality means high pulse rate, laziness, heart rate, panic attacks, and breathing rate (Jacobson et al. 2011).

During the process of evaluation, high level of emotionality results in decreased level of action because person's main focus is on negative thoughts. These negative thoughts can be illogical related performance expectations to and comparison of one's performance from others by thinking only about negative results of test and loss of self-importance. According to Cassady (2010), person suffers from test anxiety when lacks inspiration, negative self-esteem, faces labialization, and hopelessness. Emotionality, tension and long-term elements related to test anxiety enhance this anxiety (Cassady, 2010).

The insight regarding goal and focus on purpose, the present instant and non-judgmental view regarding experience is called mindfulness. Mindfulness can contribute to good academic achievement, it is mental condition related to attention, being present and focused (Bordellos et al. 2015). Further, mindfulness contains such activities in which person focuses on the present moment without any disturbance like meditation, yoga, relaxed breathing, focusing on single point of some specific object and observing some event without passing any decision, all these activities include full attention to the present minute (Broderick & Jennings, 2012).

Mindfulness finds its link with religion and spirituality but its worldly usage is studied in many settings like workplaces, educational societies, and motivational institutes. Educational settings in which formal education is given, students feel stressed (Bishop et al. 2016). Students at every degree of education either it is elementary, middle or higher as well as professional studies have to face a lot of obstacles in their course of learning and being the student of any type of educational institute. In the psychological perspective, mindfulness is condition of awareness, present moment insight and be attentive to the present event (Xu et al. 2016). However, this focusing is without any judgment and goal directed.

Test anxiety and generalized anxiety among children in the classroom has been studied by (Burke, 2010). It is the phenomena which can tell us about the disturbances regarding the adolescent's development, it is checking what are taking place in our life, with awareness. It is remedy for the insight that runs with the help of rules and regulations. It helps person to pay attention on here and now but in it future can't be ignored. Mindfulness can play its important role for development of youth and it gives a new pathway to this course (Frank, 2014). Moreover, reduction regarding stress, improvement in working memory, enhancement in cognition, reduced emotional reactions; all are the results of mindfulness, it also contributes to the self-worth, independency and good academic progress and also exploration.

Mental well-being and cognitive working can be improved by this phenomenon. It also linked with less severe pain (Lindsay, 2014), reduced fear and stress (Chen et al. 2012), increased internal locus of control as indicated by self-regulation instruments (Bowline & Baer, 2012). In order to gain any goal linked with high academic success, occupation human relationships; success. mindfulness can help in this regard. Mindful art making is such a mindful activity which is very popular in field of research and culture and mindful experiences can also be used in classroom settings easily without using any additional classes, teacher and training programs (Jha et al. 2010).

Mindfulness based coloring which we can say mindful artwork can be used to reduce anxiety among students of elementary level. Mindfulness is such a skill which varies among persons on the basis of agreement and tendency regarding paying attention to present moment. It is used in educational practices and learning activities due to its ability to reduce and control emotions and thoughts (Snow et al. 2016). Mindfulness that is being used in schools helps in enhancing focusing ability, imagination and social-emotional learning (Zenner et al. 2014). Such improvements in mindfulness practices cause a lot of educational benefits, but this idea remains to be checked (Mrazek et al. 2013).

Academic performance shows a student's success, his/her occupation, career, and success in other important fields of life. Academic performance of a student tells the ability to do something and grades in particular class. It has important role in student's educational life as well as their whole life (Cassady & Johnson, 2002). Many elements like aptitude, test anxiety, notice and understanding style affect this construct. It is studied in most of the literature to reduce and decrease all the types of anxieties which can affect academic performance and how to increase it. As test anxiety affects academic performance as does the mindfulness (Heath & Phanerogam, 2015). However, academic ability is linked with the application of knowledge and skills that have learned and the students who know this application have high academic performance.

Students know that how to fulfil demands of some type of tasks and remain flexible, use effective types of strategies to get success in their academics. Student who possess effective and flexible study abilities, methodological knowledge, balanced emotional responses. problem-solving abilities; know how to get success as same for special children. Therefore, many ways and strategies have been mentioned by Parker (2010) which helps students to maintain their information and think with creativity. These strategies include note taking, mnemotechnic, shortening, writing on flash cards, attention and deep processing to information, making key words, effective time usage, and opposite words and so on.

Further, the students who perform well and are high achievers tend to have internal locus of control as compared to external, while the low performers show external one (Melki & Lass, 2019). Difference in the performances of student's having external or internal locus of control was also observed by Homemade (2011), students who show internal control over things show high success as compared to students who show external locus of control. Academic performance and achievement are the most important topic that is being studied in most of the educational literature. However, test or exam anxiety is the most important forecaster of academic success and studies which shows that it is the main cause of poor learning experiences. However, academic success considers test anxiety as a trait in which a person reacts with increased amount of anxiety in any stressful situation in which his/her performance will be tested.

## LITERATURE REVIEW

A research conducted by Carley and Heath (2018) evaluated the mindfulness coloring art activity effectiveness for test anxiety in children and the sample was of 152 students of the grade four, five and six studying in public elementary schools. Students completed a standardized measure of anxiety and state of mindfulness before and after the coloring activity is measured by "The Mindful Attention Awareness Scale". The results revealed that there is overall significant decrease in test anxiety and increase in state mindfulness. The coloring activity benefitted both boys and girls in terms of reducing anxiety.

The aim of the study conducted by Núñez-Peña, Suárez-Pellicioni, and Bono (2016) was to examine the differences in female and male students in terms of test anxiety and their effect on student's higher education academic the achievement. The sample was of 168 psychology students and all the students completed Test Anxiety Questionnaire, Math Anxiety Rating Scale, State Trait Anxiety Inventory Measure. Moreover, gender differences were studied by applying independent t-tests. The results of this study showed that female students are higher in all three kinds of anxiety as compared to males, and the gender differences were examined on the achievement measures. Further, the results show no group differences that were found females did not show lower academic achievement than male.

The purpose of the study conducted by Onyekuru and Ibegbunam (2014) was to find the correlation between test anxiety, academic achievement and locus of control among the college students. The sample size was 498 students and the College Student's Test Anxiety Scale and Locus of Control Scale was used. Further, the results showed that there is weak but significant negative relationship was found between academic achievement and test anxiety and the significant positive relationship was found between internal locus of control and academic achievement. So, it was concluded that the students must start working from the first day of semester rather than piling up till the exam date, and then in results face anxiety.

The purpose of the study carried out by Dawood et al. (2016) was to find the relationship between test anxiety and academic achievement among undergraduate nursing students. The sample was of 277 undergraduate nursing students and test anxiety inventory was used. A cross sectional research design was used and the scores of the test revealed that there is a significant negative relationship between test anxiety scores and nursing student's academic achievement level. Moreover, those students who were with high academic scores experienced the low anxiety at time of test.

The purpose of the study conducted by Leland (2015) was if mindfulness is introduced in curriculum, will it affect the student's success. The data was collected through primary and secondary source of education and mindfulness. Tests revealed that Mindfulness improves the effect of bullying, helps the students with disabilities and those dealing with high emotion and stress, students improved both academically and professionally.

The purpose of the study carried out by Teodorczuk, Guse, and Du Plessis (2013) was to know whether there is relationship between academic performance and mindfulness among students. The data was collected from 904 second year psychology students from South African University and the Five-Facet Mindfulness Questionnaire was used. Further, the results of the study revealed that mindfulness serves as a predictor of academic performance and the mindfulness improves the student's academic performance.

The aim of the study conducted by Wiguna, Dwidiyanti and Sari (2018) was to know about the influence of mindfulness in decreasing anxiety and improving academic learning. The data was collected from online resources such as science direct and PubMed. The results of the study improved that mindfulness improves mental health. Thus, facilitate learning, academic achievement and mindfulness training increase the inner peace, facilitating calm attitude and openness, and acceptance to learning thoughts and experiences.

# OBJECTIVES OF THE STUDY

- To examine the relationship between test anxiety, mindfulness and academic performance among university students.
- To evaluate the differences in test anxiety, mindfulness and academic performance in terms of gender among university students.

• To analyze the impact of test anxiety and mindfulness on academic performance among university students.

# SIGNIFICANCE OF THE STUDY

The present study aims to investigate the impact of test anxiety and mindfulness on academic performance among university students. The research work has been done on these variables, internationally. However, the combination of these variables was not found to be studied in previous researches. It was the reason for selecting this topic as a research study. This study will be helpful in understanding the reasons that affect the academic performance of university students. Moreover, it will highlight a need to deal with anxiety among students and it will also be helpful in determining the impact of mindfulness on a student's academics.

### **RESEARCH METHODOLOGY**

#### **Research Design:**

This study has adopted quantitative research approach and used the survey research design for the collection of data through questionnaires.

#### **Research Framework:**

The research framework of this research shows the relationship between test anxiety, mindfulness and academic performance.



### **Population and Sampling:**

After all the ethical consideration, 350 participants consisting of university students were surveyed. The targeted population was the students of the Institute of Southern Punjab Multan which is located in the Multan district. Participants were selected through simple random sampling technique and the data was collected by surveying 5% of the total students enrolled at the Institute of Southern Punjab Multan. The total population comprised of 7000 students, out of which 350 were the participants (comprising of 190 male and 160 females). Students are included in research whereas professionals are not taken. They were informed about the purpose of research and were guided about the confidentially of data. The forementioned questionnaires were administered. The results were evaluated through SPSS and the correlation, regression and t-test analyses were done on the collected data to obtain the results for this study.

#### **Instruments:**

The "Westside Test Anxiety Scale" was used which was originally developed by Richard Driscoll (2004) for the measurement of anxiety was used in the study. The scale consists of 10items and all the items are in the form of questions. Each item had 5 alternatives varying from the response "extremely or always true" to "not at all or never true". Each response carries a score of '5', '4', '3', '2', and '1'respectively. To score the scale sum of 10 questions and then dividing the sum by 10. Higher scores will reflect more test anxiety.

The "Mindfulness Attention Awareness Scale" developed by Brown and Ryan (2003) was used to measure the mindfulness. The scale consists of 15-items and the items are rated on 6-points Likert scale ranging from '1' (almost always) to '6' (almost never). Each response carries a score of 1, 2, 3, 4, 5, and 6 respectively. To score the scale, compute the 0 mean of the 15 items. Higher scores will reflect more mindfulness.

The "Academic Performance Scale" was taken from the research of Yasmin and Kiani (2015), which was developed after discussing with the panel of experts. It was based on the performance indicator and consists of 38-items for measuring academic performance. Each item had 5 alternatives varying from the "Strongly Disagree" to "Strongly Agree". Each response carries a score of 1, 2, 3, 4, and 5. There were 7 items which were marked reversely and includes serial number 5, 9, 10, 20, 26, 29, and 31. Higher scores will reflect higher academic performance.

# **RESULTS AND FINDINGS**

**Table 1:** Descriptive Analysis of Demographic Variables

Demographic	Particulars	Frequency	Percentage					
Variable								

Gender	Male	160	45.75%
	Female	190	54.3%
Birth order	First Born	109	31.1%
	Middle Born	152	43.4%
	Last Born	89	25.4%
Degree Program	Undergraduate Level	136	38.9%
	Graduate Level	214	60.3%
CGPA	Below 3	51	14.3%
	Above 3	299	85.4%
Mode of living	Day Scholar	184	52.6%
	Hostelised	161	47.1%

Table 1 shows the frequency and percentage of the demographic variables; gender, birth order,

degree program, CGPA, and mode of living for the present study.

	Table 2: Correlation between Test Anxiety, Mindfulness and Academic Performance								
	Test Anxiety	Mindfulness	Motivation	Creativity	Communic ation	Learning	Attitude	Study Skills	
Test Anxiety	1	481**	440**	384**	415**	377**	.516**	.397**	
Mindfulne ss		1	.264**	.307**	.3177**	.304**	.386**	.315**	
Motivation			1	.595**	.632**	.615**	.575**	.452**	
Creativity				1	.528**	.947**	.562**	.547**	
Communic ation					1	.536**	.553**	.504**	
Learning						1	.546**	.541**	
Attitude							1	.587**	
Study Skills								1	

\*\* $p \le 0.01$ , p > 0.05Table 2 reveals the correlation coefficients among all study variables. There is a significant negative correlation between test anxiety and mindfulness.

Test anxiety also has significant negative correlation with academic performance whereas, mindfulness has significant positive correlation with academic performance.

 Table 3: Differences between Males and Females for their Scores on Test Anxiety, Mindfulness and Academic performance

	Males (N=190)		Females (N=160)			
Scales	M	SD	М	SD	Т	р
Test anxiety	3.071	0.744	2.77	0.877	-3.45	0.001
Mindfulness	50.08	12.46	52.70	12.93	1.92	0.055
Motivation	19.2788	4.65	20.30	4.418	2.122	0.035
Creativity	19.0061	4.755	20.07	4.53	2.13	0.034
Communication	19.624	4.02788	19.6522	3.87492	0.066	0.974
Learning	19.0424	4.55368	19.9620	4.89269	1.811	0.071

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	Attitude	25.7697	5.33697	25.4620	5.48108	530	0.596	
	Study Skills	18.9273	4.51902	19.3424	4.20995	.888	0.375	
* <i>p</i> <	0.05, **p = < 0.001			higher on	test anxiety	whereas,	females	are
Table	e 3 shows the comparison be	tween the r	nale	significantly	y high on m	indfulness.	There are	e no
and f	emale university students in	terms of t	their	significant	differences in	n academi	c perform	ance
test	anxiety, mindfulness a	and acade	emic	(i.e. moti	vation, crea	ativity, c	ommunica	tion,
perfo	rmance along with its subs	cales. Find	ings	learning,	attitude	and st	udy sk	ills).
sugge	est that males have been for	ound signifi	cant					

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Predictors	B	Std. Error	Beta	t	р
(Constant)	25.166	1.648		15.266	.000***
<b>Test Anxiety</b>	-2.255	0.304	-0.407	-7.416	.000***
Mindfulness	0.025	0.02	0.069	1.256	0.21

 $R^2 = 0.197$ , Adjusted  $R^2 = 0.193$ , (F (2, 347) = 42.61, p <= 0.005), \*p <= 0.005

Table 4 reveals that dependent variable motivation is 19.7% explained by the independent variable of test anxiety and mindfulness also depicts that model which significantly explains the outcome Table 5: Standard Pagragaian Model showing Impo variable. Examining the p-values from the table is also an indicative of the notion that test anxiety has significantly contributing in the prediction of motivation whereas, mindfulness has insignificant impact on motivation.

**Table 5:** Standard Regression Model showing Impact of Test Anxiety and Mindfulness on Creativity

Predictors	В	Std. Error	Beta	t	р
(Constant)	21.701	1.724	-	12.590	.000
Test Anxiety	-1.749	.318	307	-5.501	.000***
Mindfulness	.058	.021	.159	2.849	.005*

 $R^2 = 0.167$ , Adjusted  $R^2 = 0.162$ , (*F* (2, 347) = 34.757, p <= 0.005), \*p <= 0.005Table 5 reveals that dependent variable creativity is 16.7% explained by the independent variable of test anxiety and mindfulness also depicts that **Table 6:** Standard Regression Model showing Impac model which significantly explains the outcome variable. Examining the p-values from the table is also an indicative of the notion that test anxiety and mindfulness both are significantly contributing in the prediction of creativity.

Table 6: Standard Regression Model showing Impact of Test Anxiety and Mindfulness on Communication

Predictors	B	Std. Error	Beta	t	р
(Constant)	22.025	1.432		15.380	.000
Test Anxiety	-1.64	.264	342	-6.208	.000***
Mindfulness	.047	.017	.153	2.773	.006

 $R^2 = 0.191$ , Adjusted  $R^2 = 0.186$ , (*F* (2, 347) = 40.831, p < = 0.005), \*p < = 0.005Table 6 reveals that dependent variable communication is 19.1% explained by the independent variable of test anxiety and mindfulness also depicts that model which significantly explains the outcome variable. Examining the p-values from the table is also an indicative of the notion that test anxiety and mindfulness both are significantly contributing in the prediction of communication.

Table 7: Standard Regression Model showing impact of Test Anxiety and mindfulness on Learning

Predictors	В	Std. Error	Beta	t	p
(Constant)	21.54	1.756		12.265	.000***
Test Anxiety	-1.732	.324	300	-5.384	.000***
Mindfulness	.060	.021	.160	2.857	.005*

 $R^2 = 0.402$ , Adjusted  $R^2 = 0.162$ , (F (2, 347) = 33.460, p < = 0.005), \*p < = 0.005

Table 7 reveals that dependent variable learning is 40.2% explained by the independent variable of test anxiety and mindfulness also depicts that

model which significantly explains the outcome variable. Examining the p-values from the table is also an indicative of the notion that test anxiety and mindfulness both are significantly contributing in the prediction of learning. Table 8: Standard Regression Model showing Impact of Test Anxiety and Mindfulness on Positive Attitude

Predictors	B	Std. Error	Beta	t	p
(Constant) 2	9.997	1.839		16.313	3.000
Test Anxiety -	2.825	.339	430	-8.330	.000***
Mindfulness	.076	.022	.179	3.477	.001**
$R^2 = 0.291$ , Adjusted $R^2 = 0.287$ , (F	(2, 347)	= the	outcome	variable. E	xamining the p-va

71.091, p < = 0.005), \*p < = 0.005

Table 8 reveals that dependent variable positive attitude is 29.1% explained by the independent variable of test anxiety and mindfulness also depicts that model which significantly explains the outcome variable. Examining the p-values from the table is also an indicative of the notion that test anxiety and mindfulness both are significantly contributing in the prediction of positive attitude.

Table 9: Standard Regression	Model showing Imr	pact of Test Anxiety a	nd Mindfulness on Stud	v Skills
<b>Lubic 3.</b> Standard Regression	model showing mip	act of restriction under a		<i>j</i> okino

Predictors	В	Std. Error	Beta	Т	Р
(Constant)	21.256	1.595		13.323	.000
Test Anxiety	-1.688	.294	319	-5.738	.000***
Mindfulness	.055	.019	.162	2.922	.004

 $R^2 = 0.178$ , Adjusted  $R^2 = 0.173$ , (F (2, 347) = 37.44, p < = 0.005), \*p < = 0.005

Table 9 reveals that dependent variable study skills is 17.8% explained by the independent variable of test anxiety and mindfulness also depicts that model which significantly explains the outcome variable. Examining the p-values from the table is also an indicative of the notion that test anxiety and mindfulness both are significantly contributing in the prediction of study skills.

## DISCUSSION

The first hypothesis of this study is a significant relationship between test anxiety, mindfulness and academic performance among university students. In this regard, the correlation analysis indicates that there is a significant negative correlation between test anxiety and mindfulness which shows that if test anxiety will increase then mindfulness will decrease and if mindfulness will increase than test anxiety will decrease. Test anxiety also have significant negative correlation with academic performance, which shows that if will increase anxiety than academic test performance will decrease and if academic performance will increase than test anxiety will decrease. Mindfulness has significant positive

correlation with academic performance, which shows that if mindfulness will increase then academic performance will also increase and if mindfulness will decrease than academic performance will also decrease. The findings of this study are similar with that supported by Nivenitha and Nagalakshmi (2016). The findings of the results showed that there is a relationship between test anxiety, mindfulness and academic performance among students.

The second hypothesis of this study is that respondents are different from each other in the test anxiety. mindfulness and academic performance in terms of gender. Further, the results of independent t-test, shows that there are gender differences in test anxiety, mindfulness and academic performance in terms of gender. Males have more test anxiety than female, and females are high at mindfulness as compare to male, less differences are found in academic performance among male and female. Thus, on the basis of findings, it is concluded that males are more prone to undergo test anxiety and less at being mindful which are the negative qualities which suppress the academic performance.

The third hypothesis of this study is the impact of test anxiety and mindfulness on academic performance among university students. The

results of regression analysis show that there is an impact of test anxiety and mindfulness on academic performance. Further, the standard regression model shows that there is a significant impact of test anxiety and mindfulness on creativity, motivation, positive attitude, communication, learning, and study skills.

## CONCLUSION

The results of the study revealed a relationship between test anxiety and mindfulness on academic performance and there are gender differences between test anxiety, mindfulness and academic performance. Moreover, female students are high in mindfulness while male students have more test anxiety and few differences are found in academic performance. Overall, this study is a contribution towards the particular research area addressing the impact of test anxiety and mindfulness on academic performance among university students and the importance of mindfulness and its relation towards academic performance among university students in the Pakistan's context. It is hoped that the findings of this study would be significantly beneficial for the participants of the study as well as for parents and teachers. Furthermore, this study would also be useful for policy makers, stakeholders, and curriculum developers, to help them in order to create the awareness of test anxiety and mindfulness.

# SUGGESTIONS AND FUTURE IMPLICATIONS

Further studies can take larger groups for better results. Since this study was limited to university students, more studies should be done in other constituencies and districts or at a larger geographical area. Also, further studies can be carried out to determine the influence of other variables on academic performance. Moreover, this study will be helpful in finding the cause of test anxiety among the students, and implication of mindfulness strategies in educational setup. Additionally, mindfulness improves the effect of bullying, helps the students with disabilities, and those who are dealing with high emotion and stress.

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