

A Study on the Relationship between Anxiety and Academic Outcomes in Graduates

Dr. Deepali Singla

Principal, Pine Grove College of Education, Bassi Pathanan, Distt. Fatehgarh Sahib, Punjab

ABSTRACT

Academic anxiety is a critical psychological factor that substantially influences student performance. This study investigates the Relationship between academic anxiety and academic achievement among college Graduates, with a particular focus on gender-based differences in performance outcomes. Employing a quantitative survey methodology, data were collected from 200 Graduates enrolled in government degree colleges in the Fatehgarh Sahib district of Punjab (India). Statistical analysis was conducted using SPSS, applying percentage analysis, regression techniques, and independent t-tests to interpret the findings. Results reveal a significant negative Relationship between academic anxiety and academic achievement. Regression analysis indicates that academic anxiety accounts for approximately 41% of the variance in academic performance ($R = 0.17$, $F = 41.39$, $p < 0.001$), underscoring its substantial impact. Furthermore, ANOVA results and coefficient interpretations support the conclusion that academic anxiety is a meaningful predictor of academic outcomes. Gender-wise analysis shows a statistically significant difference in academic achievement ($p = 0.01$), suggesting that anxiety may affect male and female Graduates differently. The findings emphasize the need for early identification and management of academic anxiety to safeguard student performance. Persistent academic anxiety can lead to cognitive disruptions, decreased motivation, and long-term academic underachievement. Addressing this issue through targeted interventions is essential for fostering a healthier and more effective learning environment.

Keywords: Academic Anxiety, Student Achievement, Gender Differences, Regression Analysis, Educational Psychology

Introduction

Anxiety is a common human emotion that affects people of all ages and has a significant impact on our psychological makeup. In times of danger, possible embarrassment, or stress, it serves as a vital alert system to guide kids through difficulties with ease. Anxiety may be helpful when it's under control and in a reasonable amount. However, if it intensifies, it may have a negative impact on relationships with others, one's wellbeing, and even result in medical and mental issues (Herrero et al., 2006).

Anxiety may be influenced by a variety of outside influences. Among them are stress related to school, "stress in a personal relationship, stress at work, financial stress, stress brought on by an emotional trauma like the loss of a loved one, being a victim of crime, a natural disaster, experiencing sexual or physical abuse," and stress brought on by medication side effects. According to estimates from (Vital et al., 2013) and (Bandelow & Michaelis, 2015), anxiety affects 33.7% of the world's population, making it one of the most common mental health illnesses. It is a global issue that affects people from different ages, socioeconomic origins, and walks of life. However, university Graduates, whose anxiety rates are on the rise, are particularly notable for their reaction to it. According to studies, 74% of college Graduates experience anxiety. Given that it has a direct impact on their academic goals and general well-being, this number emphasizes how serious the problem is. (Aronin & Smith, 2016)

Academic anxiety has real effects on cognitive performance and educational success in addition to being a psychological burden. Working memory, a cognitive ability essential for learning and academic performance, is one of its notable fatalities. Working memory problems brought on by worry might result in subpar academic performance (Hashempour & Aida, 2014). This negative effect on memory and cognitive functions might compromise Graduates' educational experiences and prevent them from achieving academic success.

It is crucial to examine the nature of anxiety in order to fully appreciate the deep consequences of academic anxiety. According to Spielberger's definition of anxiety, it is "a subjective feeling of tension, apprehension, nervousness, and worry associated with arousal of the autonomic nervous system" (Vitasari et al., 2010). It can appear in a variety of

circumstances, whether there is or is not psychological stress, and emerges as a complex interaction of physical, emotional, and cognitive alterations (Afolayan et al., 2013).

Academic Anxiety

Collegiate Panic Anxiety is a common emotional reaction to certain stimuli. While some degree of anxiety is normal, worrying too much may be harmful. It's possible that school anxiety may only become worse with time. According to (Huberty, 2010), When a student's performance in class falls, anxiety levels linked with particular academic assignments increase. Kids with social anxiety or school anxiety are common for teachers to encounter. The effects of social anxiety on a student's schoolwork are not to be discounted. A student with social anxiety may avoid participating in class group projects or may not feel comfortable asking for help. Social anxiety can occur alongside or be a source of academic anxiety. The ability to self-regulate has a positive effect on Graduates' academic performance and anxiety levels (Ader & Erktin, 2010). Academic anxiety causes Graduates to stress out over their studies. Some Graduates may feel overwhelmed by any academic requirement. Some people may just get nervous about doing a given task, such as taking an exam. Anxiety may have positive as well as negative outcomes. Some Graduates' anxiety really helps them learn.

Academic Achievement

A key idea in education is academic accomplishment, which denotes the results of one's efforts in a learning setting like a school, college, or university (Moore, 2019). It acts as a concrete indicator of how well people have accomplished particular educational aims and objectives. These objectives, which often include a wide variety of cognitive abilities and information acquisition, are determined by educational institutions. As a result, academic performance is a complex concept that includes many different learning domains.

Depending on the metrics employed to gauge it, academic performance might have different definitions and assessments. These measurements can be roughly divided into various categories:

Declarative and Procedural Knowledge:

Within an educational system, academic success frequently depends on the acquisition of declarative knowledge (factual information and comprehension) as well as procedural knowledge (how to carry out tasks or solve issues).

Curriculum-Based Criteria:

Commonly used measures of academic accomplishment include grades given by teachers and results on educational achievement exams. These standards provide information about a student's level of subject area mastery.

Cumulative Indicators:

Acquiring educational degrees, certificates, or diplomas might serve as a proxy for academic success. These cumulative indicators indicate a person's educational background and level of subject-matter competence (Steinmayr et al., 2014).

LITERATURE REVIEW

According to (Kaur et al., 2021), adolescence is a time of "stress and storm." At this stage of development, teenagers typically experience the greatest levels of stress related to academic tasks. When Graduates have concern about school-related matters, such as upcoming exams, presentations, assignments, interviews, curricula, teaching methods, peer relationships, etc., they are said to be experiencing "academic anxiety." According to the findings of this review of the research, academic anxiety in adolescents is closely connected to their internal academic accomplishment, academic motivation, and study habits as well as external influences like their family and school environments.

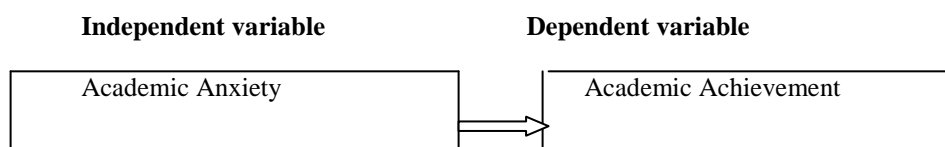
(Mirawdali et al., 2018) Anxiety over schoolwork has been shown to be a strong indicator of academic success. Graduates who suffer from excessive worry are unable to give their full academic potential. In order to comprehend the nature and extent of academic anxiety, "the purpose of this study was to investigate the link between social and family sources of anxiety and academic performance. In order to determine the prevalence of academic anxiety and its effects on both high- and low-achieving Graduates," this study used a cross-sectional technique and a questionnaire created using previously validated measures. The study involved 132 University of Wolver-Hampton pharmacy Graduates in their third and fourth years. Academic accomplishment was significantly influenced by elements including exam anxiety, academic proficiency, and time management skills. For a sizable majority of the research group, poor academic performance was a result of the perceived workload and volume of reading materials assigned for each exam. Academic performance and causes of stress were shown to be positively related to social and family sources of worry. This research also showed that demographic factors like anxiety in the family history and developmental stage might have an impact on academic success. This research

showed that a significant percentage of MPharm undergraduates suffer from academic anxiety, and it pinpointed certain important causes that should be addressed to help these Graduates. For children to succeed in the long run, it is crucial to help them learn to manage the stresses of school.

(Khemka & Rathod, 2016) The purpose of the current study was to examine secondary school Graduates' academic anxiety. The School was chosen using a purposeful selection approach, while the Graduates were chosen using a stratified random sample technique. 400 Graduates made up the entire sample. Survey research was employed by the researcher. Utilizing the statistical methods of the t-test and Percentage, the acquired data were examined. "The findings showed that 6.5% of Graduates had severe academic anxiety, 18.5% of Graduates had low academic anxiety, and 75% of Graduates had moderate academic anxiety. Female Graduates had more academic anxiety than male Graduates did. Boys in government schools have more worry about their academic performance than boys in private schools." Academic anxiety was higher in females attending private schools than in girls attending public schools.

Research Framework

Two variables have been chosen to determine "effects of academic anxiety on academic achievement of Graduates". These variables will be used to conduct an in-depth analysis of the impact of these tools on employee engagement. Below is a research framework illustrating the four variables that can be used to determine effects of academic anxiety on academic achievement of Graduates.



Research Design

The study design establishes which methodology is most appropriate for achieving a certain set of research objectives and under specified conditions. Using the initial research objectives, It is possible to design a methodical data collecting and analysis plan. Using a descriptive research technique, this article aims to study of the "effects of academic anxiety on academic achievement of Graduates." Descriptive research can be conducted in a number of different ways, including qualitative and quantitative approaches. Quantitative and qualitative methods were used in this investigation. It takes an integrative method. Setting the scope and parameters of the study, as well as gathering and analysing information from participants, are essential activities in the research process. In this research, we explore study of the "effects of academic anxiety on academic achievement of Graduates."

Methods and Tools used

The data was gathered using a survey. Surveys are routinely used in a variety of ways to collect information on Graduates' academic success and academic distress. Every survey uses a sample in order to identify or clarify the traits and attitudes of academic anxiety and academic accomplishment of pupils. Using a checklist, the impacts of academic anxiety on Graduates' academic success were evaluated. And in this instance, 200 Graduates from Govt. Degree Colleges of Distt. Fatehgarh Sahib (Pb.) who participated in a poll of various workplaces were the responders.

Data Analysis

The statistical software SPSS 22.0 was used to examine the study's data. To dive further into the data we believed was most important, we employed statistical methods including analysis of variance and percent-based procedures. The most crucial elements of the investigation were highlighted with the aid of percentage analysis.

When comparing and analyzing different data sets, percentages are an effective tool. It's simple to use this approach to reach your target audience. Once enough information is gathered, a complete image of the problem can be drawn. Graphs are a better way to visualize percentage analysis.

Objectives

- To evaluate effects of academic anxiety on academic achievement of Graduates.
- To find gender wise difference in academic achievement.

Results

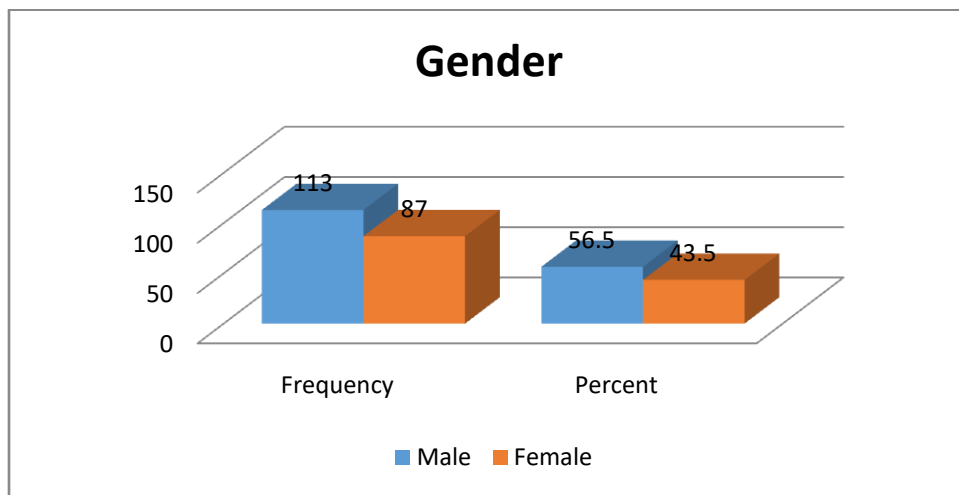
This part has produced the desired outcome. a thorough explanation of the analysis done on the survey findings. It enables in-depth analysis of the Frequency and Percentage table with the aid of the graph. Regression was used for statistical assessments.

“Table 1: Gender wise distribution of respondents”

Gender		
	Frequency	Percent
Male	113	56.5
Female	87	43.5
Total	200	100.0

“The distribution of respondents by gender is discussed in the above table. In men, frequency is 113 and percentage is 56.5%. In females, frequency is 87 and percentage is 43.5%.”

“Graph 1: Graphical representation of gender wise distribution of respondents”

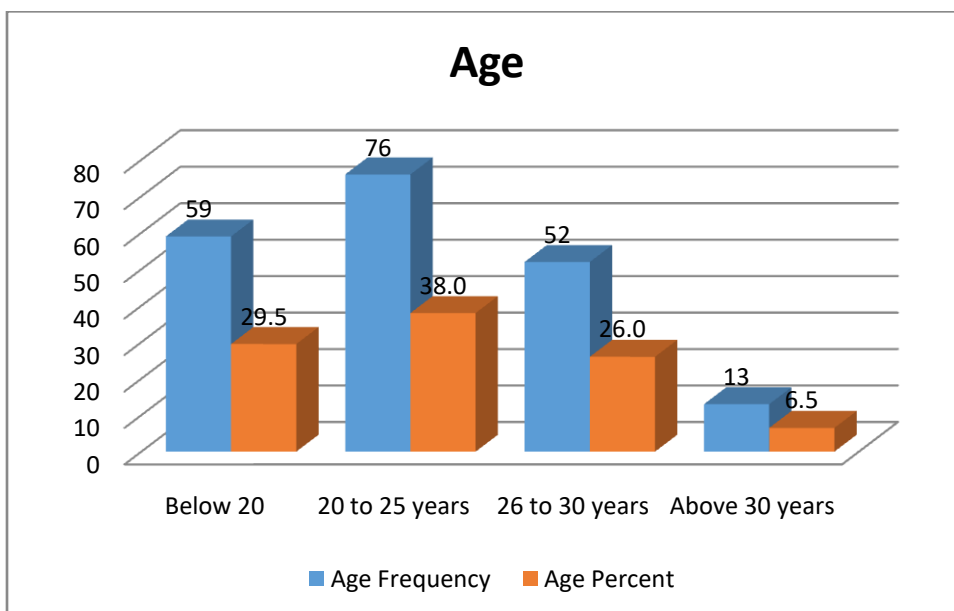


“Table 2: Age wise distribution of respondents”

Age		
	Frequency	Percent
Below 20	59	29.5
20 to 25 years	76	38.0
26 to 30 years	52	26.0
Above 30 years	13	6.5
Total	200	100.0

The above table discusses age wise distribution of respondents. In below 20, frequency is 59 and percentage is 29.5%. In 20 to 25 years, frequency is 76 and percentage is 38%. In 26 to 30 years, frequency is 52 and percentage is 26%. In above 30 years, frequency is 13 and percentage is 6.5%.”

“Graph 2: Graphical representation of age wise distribution of respondents”

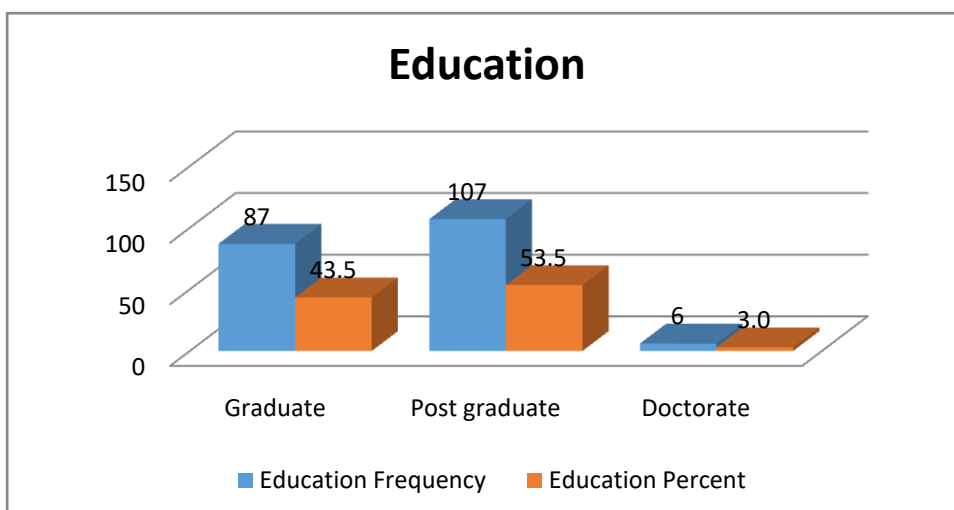


“Table 3: Education wise distribution of respondents”

Education		
	Frequency	Percent
Graduate	87	43.5
Post graduate	107	53.5
Doctorate	6	3.0
Total	200	100.0

The above table discusses education wise distribution of respondents. In graduate, frequency is 87 and percentage is 43.5%. In post graduate, frequency is 107 and percentage is 53.5%. In doctorate, frequency is 6 and percentage is 3%.”

“Graph 3: Graphical representation of education wise distribution of respondents”



“Table 4: Regression test”

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416 ^a	.173	.169	7.96413
a. Predictors: (Constant), Academic anxiety				

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2625.705	1	2625.705	41.397	.000 ^b
	Residual	12558.615	198	63.427		
	Total	15184.320	199			
a. Dependent Variable: Academic achievement						
b. Predictors: (Constant), Academic anxiety						

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	33.276	2.089		15.928	.000
	Academic anxiety	.390	.061	.416	6.434	.000
a. Dependent Variable: Academic achievement						

To determine the levels of variability within a regression model and to create the framework for a test of significance, multiple regression analysis uses ANOVA. The aforementioned table clearly shows that the factors in the research are statistically significant. According to a regression analysis of academic anxiety and academic achievement, academic anxiety influences academic achievement by 41%, with the remaining variance unexplained. As indicated by the R value (0.17), there is a significant impact of academic anxiety on academic achievement ($F=41.39$, sign. value = 0.00) according to Anova table. These values indicate that "Academic anxiety has a significant effect on academic achievement." variable in the above table of coefficients. B-coefficients are typically positive and significant. Since the dimensions of all indicators are identical, it is preferable to translate the B-coefficients rather than the beta coefficients. Significance value indicates "Academic anxiety has significant impact on academic achievement".

Table 5: T test

“Independent Samples Test”								
		“Levene's Test for Equality of Variances”		“t-test for Equality of Means”				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
“Academic achievement”	“Equal variances assumed”	5.782	.017	-3.328	198	.001	-4.04557	1.21551
	“Equal variances not assumed”			-3.246	164.857	.001	-4.04557	1.24623

The above table discusses gender wise difference in academic achievement. In academic achievement, sig. value is 0.01 which shows there is significant gender wise difference in academic achievement.

CONCLUSION

This study concludes that academic anxiety is a significant predictor of Graduates' academic achievement. The results clearly demonstrate that heightened levels of anxiety negatively influence performance, with academic anxiety accounting for a considerable proportion of the variance in academic outcomes. Furthermore, the study identifies notable gender-based differences, indicating that male and female Graduates experience and are impacted by academic anxiety in distinct ways.

The implications of these findings are both theoretical and practical. From a theoretical standpoint, they add to the growing body of literature on the psychological determinants of academic success. Practically, the results suggest an urgent need for educational institutions to develop and implement mental health support systems, stress-reduction programs, and anxiety-management strategies within academic settings.

Reducing academic anxiety not only enhances student performance but also promotes overall well-being, motivation, and long-term academic resilience. Given the profound impact anxiety can have on cognitive functioning and learning processes, addressing this issue is essential for fostering equitable and supportive educational environments for all Graduates.

REFERENCES

- [1]. Ader, E., & Erkin, E. (2010). Coping as self-regulation of anxiety: A model for math achievement in high-stakes tests. *Cognition Brain Behavior*.
- [2]. Afolayan, J. A., Donald, B., Onasoga, O., Babafemi, A. A., & Juan, A. A. (2013). Relationship between anxiety and academic performance of nursing Graduates, Niger Delta University, Bayelsa State, Nigeria. *Pelagia Research Library Advances in Applied Science Research*.
- [3]. Ante, M. O. (2023). Academic Anxiety. <https://mfany2013.weebly.com/>
- [4]. Aronin, S., & Smith, M. (2016). One in four Graduates suffer from mental health problems. *Society Health & Science*. <https://yougov.co.uk/>
- [5]. Attri, D. A. K., & Neelam. (2013). ACADEMIC ANXIETY AND ACHIEVEMENT OF SECONDARY SCHOOL GRADUATES – A STUDY ON GENDER DIFFERENCES. *International Journal of Behavioral Social and Movement Science*, 2(1).
- [6]. Bandelow, B., & Michaelis, S. (2015). Epidemiology of anxiety disorders in the 21st century. *Dialogues in Clinical Neuroscience*, 17(3), 327–335. <https://doi.org/10.31887/DCNS.2015.17.3/bbandelow>
- [7]. Banga, C. L. (2014). Academic Anxiety Among High School Graduates In Relation To Different Social-Categories. *International Multidisciplinary e –Journal*.
- [8]. Cassady, J. C., & Johnson, R. E. (2002). Cognitive Test Anxiety and Academic Performance. *Contemporary Educational Psychology*, 27(2), 270–295. <https://doi.org/10.1006/ceps.2001.1094>
- [9]. Chauhan, A. (2016). An Achievement Motivation and Academic Anxiety of School Going Graduates. *Psychology and Behavioral Science International Journal*. <https://d1wqtxs1xzle7.cloudfront.net/>
- [10]. Das, S. K., Halder, U. K., & Mishra, B. (2014). A STUDY ON ACADEMIC ANXIETY AND ACADEMIC ACHIEVEMENT ON SECONDARY LEVEL SCHOOL GRADUATES. *Indian Streams Research Journal*. <https://www.researchgate.net/>
- [11]. Hashempour, S., & Aida, M. (2014). The Effect of Anxiety and Emotional Intelligence on
- [12]. memory. *Frontiers in Human Neuroscience*, 7. <https://doi.org/10.3389/fnhum.2013.00093>