

Exam Anxiety Among Students: A Gender-Based Study

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Abstract: Exam anxiety is characterized by intense nervousness, a profound level of fear that hinders the effective application of previously acquired knowledge during a test situation, ultimately leading to a decline in cognitive performance and overall subjective well-being. This study examined the prevalence and gender-based differences in exam anxiety among undergraduate students, utilizing a descriptive design and convenient sampling. Data were collected through an online survey using the Test Anxiety Questionnaire developed by Nist and Diehl. The finding revealed noteworthy gender differences, with females reporting higher levels of both healthy and unhealthy exam anxiety compared to males. Males exhibited a greater proportion of extremely low anxiety levels. The chi-square test of independence confirmed a statistically significant relationship between gender and anxiety level ($p < 0.05$), emphasizing gender as a crucial determinant. These outcomes highlight the gender-sensitive mental health interventions tailored to address specific stressors and coping mechanisms, as well as advocating for open discussion.

Keywords: Exam Anxiety, Gender, Undergraduates, Exam Understanding

Abstrak: Kecemasan ujian ditandai dengan rasa cemas yang intens, tingkat ketakutan yang mendalam yang menghalangi penerapan pengetahuan yang telah diperoleh secara efektif selama situasi ujian, yang pada akhirnya menyebabkan penurunan kinerja kognitif dan kesejahteraan subjektif secara keseluruhan. Studi ini menganalisis prevalensi dan perbedaan berdasarkan gender dalam kecemasan ujian di kalangan mahasiswa sarjana, menggunakan desain deskriptif dan sampling yang praktis. Data dikumpulkan melalui survei online menggunakan Kuesioner Kecemasan Ujian yang dikembangkan oleh Nist dan Diehl. Temuan menunjukkan perbedaan gender yang signifikan, dengan perempuan melaporkan tingkat kecemasan ujian yang lebih tinggi, baik yang sehat maupun tidak sehat, dibandingkan dengan laki-laki. Laki-laki menunjukkan proporsi yang lebih besar dengan tingkat kecemasan yang sangat rendah. Uji chi-square kemandirian mengonfirmasi hubungan yang signifikan secara statistik antara gender dan tingkat kecemasan ($p < 0,05$), menyoroti gender sebagai determinan yang krusial. Hasil ini menyoroti perlunya intervensi kesehatan mental yang sensitif terhadap gender, yang dirancang untuk mengatasi stresor dan mekanisme koping spesifik, serta mendorong diskusi terbuka.

Kata kunci: Kecemasan Ujian, Jenis Kelamin, Mahasiswa Sarjana, Pemahaman Ujian

1. INTRODUCTION

The World Health Organization World Mental Health International College Student Initiative [WMH-ICS] conducted a study about stress between September 2014 and February 2018. The study covered six life areas (financial situation, health, love life, relationships with family, relations at work/school, and problems experienced by loved ones) with six types of 12-month mental disorders (major depressive disorder, bipolar disorder, generalized anxiety disorder, panic disorder, alcohol use disorder, and drug use disorder). It had 20,842 respondents from 24 universities in 9 countries. The study alarmingly states that most students (93.7%) reported at least some stress in at least one of the six areas (Karyotaki et al., 2020). In this note, it can be said that stressors experienced in college may serve as a predictor of mental health diagnoses (Karyotaki et al., 2020). During a student's life as a college student, their mental health may be obstructed more by academic stress in comparison to any other stressor (Pascoe et al., 2020), which further develops depression, anxiety, and substance abuse disorder, to name a few (Liu, C.H., et al., 2019). At the same time, some of the academic stressors, such

as a demanding heavy course load, prolonged study hours with intense study sessions, balancing both academic life and day-to-day living, competitive learning environments within educational institutions, financial constraints, family obligations, and adaptation challenges adjusting to a new setting (Freire et al., 2020; Karyotaki et al., 2020), can be alarming issues that negatively affect mental health. Studies have shown reduced motivation, hindered academic achievement, and increased college dropout among many negative effects of academic stress in college students (Pascoe et al., 2020).

Test anxiety is commonly found among university-level students, which significantly affects the performance and overall well-being of students (Jirjees et al., 2024). Within the academic context, exam anxiety refers to a profound level of fear and apprehension about underperformance before, during, and/or after test situations, particularly in the academic environment (Herzer et al. 2014). Exam anxiety is described as an intense distress that often hampers and impairs the ability to effectively use the knowledge learned before the exam and leads to a decrease in the rate of academic performance. Exam anxiety is an important problem that causes a decrease in academic and overall performance, which is further accompanied by serious psychological problems. It is a set of responses that includes excessive worry, depression, nervousness, and irrelevant thinking to a class of stimuli from an individual's experience of assessment/test and outcome (Hashmat et al., 2004). While optimal levels of anxiety can enhance learning ability (Borod, 2000), under certain circumstances, anxiety can help to evaluate and mobilize resources to improve performance in some tasks (Vitasari et al., 2010). However, excessive anxiety can lead to physical and mental health problems (Niemi & Vainiomaki, 1999) and may affect students' academic performance and achievement. In severe cases, it may even lead to panic attacks (Test Anxiety, 2022)

According to the study conducted on students of the Faculty of Medicine, it was found that 65% of students experience exam anxiety for various reasons, and female students experience more exam anxiety than male students (Sarıkaya and Gemalmaz, 2021). The study shows that female students had high anxiety levels as compared with males. A similar study (Mofatteh, 2020) found that female students had a higher prevalence of stress, anxiety, and depression compared to male students, and female students demonstrated a higher risk of developing depressive disorders. They specifically perceived significantly high anxiety levels due to extensive course load, long exam duration, inadequate rest, and negative thinking, as compared with male students (Khoshhal et al., 2017). The negative effects of academic stress could bring a high-magnitude, lifelong risk to the mental health of the young generation. Test anxiety as a phenomenon has received considerable attention since the 1950s. In 1988, Hembree found that the conditions that give rise to differential test anxiety levels include ability, gender, and school grade level (Hembree, R. 1988). It is considered to be a common educational problem, referring to a situation when students do not feel confident about their abilities, which is reflected especially in their performance and test results.

The research has suggested a difference in anxiety responses between males and females, with females generally self-reporting higher levels of test anxiety symptoms than males (King, 2016). The study hints at how important it is to check and balance the role of gender when interpreting exam anxiety. Another finding by Trifoni and Shahini shows that females have higher levels of worry as well as higher levels of emotionality compared to males (Trifoni & Shahini, 2011). As the concerned authorities of Nepal have shown negligible apprehension about mental health, the issue of academic stress can easily go undiagnosed, leaving its treatment far away. In this regard, this study aims to estimate the prevalence and the level of exam stress in undergraduate (bachelor's level) students with a focus on identifying gender-based differences. This study is to include a description of exam-related anxiety of students in a gender-based study. To determine the prevalence of exam anxiety in students and its impact on their academic performance and overall well-being. To examine gender-based

differences in exam anxiety levels and assess the statistical significance of gender as a determinant factor in test-related stress.

2. METHOD

This study has used a descriptive research design to comprehensively understand the prevalence of exam anxiety exhibited by the particular level of students such study applying to undergraduates. To achieve this, a convenient sampling method was utilized, allowing for the selection of the student participant representative based on their accessibility and availability.

In this study, the information collection was facilitated through the use of an online survey platform, Google Forms. This research method has explored multiple findings, including several ease of distribution, increased access for respondent participation, and efficient collection of data and its management. The online survey format allows participants to respond at their convenience, potentially increasing response rates and enhancing the representativeness of the sample.

The studies covered various aspects of undergraduate student life and sociodemographic information. The questions of the Test Anxiety (Nist and Diehl 1990), a brief questionnaire to assess test anxiety severity among students, were used in this study. Scores derived from the questionnaire range from 10 to 50, with varying implications for test anxiety levels. Low scores (10-19) indicate minimal or no test anxiety, moderate scores (20-35) suggest manageable levels of stress, while high scores (over 35) signify unhealthy levels of test anxiety requiring attention and coping strategies. This tool provides a valuable means of identifying and addressing test anxiety in academic settings. A Likert scale is utilized as the response format for each item or statement included in this questionnaire. Each item presents a statement related to testing the level of anxiety within the respondents; they can choose their participation in individual levels of agreement or disagreement.

The quantitative data collected in the respondent survey were analyzed using descriptive mode of statistics techniques. The descriptive statistical measures provide insights into the prevalence and distribution of various characteristics and behaviors among the students.

The study has considered the ethical considerations, participants were assured of anonymity and confidentiality, and the process of data collection was treated with sensitivity. researcher: Inform them that consent was obtained from the participant to begin the research survey, outlining the purpose of the study and their rights as participants, and the voluntary nature of their participation. Furthermore, the research adheres to relevant data protection regulations to ensure the privacy and security of participants' information. Despite the careful planning and execution of the research methodology, it is essential to acknowledge potential limitations. The online survey format may exclude individuals who do not have access to the internet or prefer other modes of participation, leading to potential underrepresentation of certain groups.

3. RESULT AND DISCUSSION

To understand the gender differences in exam-related anxiety, cross-tabulation analyses have been conducted. The Gender and Panic Table presents the distribution of panic frequency before and during tests, stratified by gender and gender of the respondent. The table shows the association between gender and categorized anxiety. The Gender and Frequency of Mind Going Blank during Tests shows the gender-based differences in disruptions in thought processes during tests. The table Anxiety level Cross tabulation states the two gender categories, which account for significant levels of anxiety differentiation among the respondents. The chi-square test shows that gender and their anxiety levels are significantly associated, which are stated below:

Table 1: *Cross-tabulation of Gender and Panic Before and During the Test*

Panic Level	Male (n=30)	Female (n=73)	Total (N = 103)
Never	13 (43.3%)	15 (20.5%)	28 (27.2%)
Rarely	4 (13.3%)	17 (23.3%)	21 (20.4%)
Sometimes	9 (30.0%)	17 (23.3%)	26 (25.2%)
Often	3 (10.0%)	14 (19.2%)	17 (16.5%)
Always	1 (3.3%)	10 (13.7%)	11 (10.7%)

The tables show that 43% of male respondents reported never experiencing panic, while only 20.5% of females responded the same. It shows that females experience a higher level of panic before and during the exam in comparison to males. In contrast, more females reported experiencing frequent panic, with 13.7% selecting ‘always’ and 19.2% selecting ‘often,’ relative to only 10.0% and 3.3% of male respondents. This data implies a clear trend where female respondents tend to panic more frequently in comparison to males, suggesting a potential gender-based difference in emotional response to panic situations.

Table 2: *Cross-tabulation of Gender and Frequency of Mind Going Blank during Test*

Frequency	Male (n=30)	Female (n=73)	Total (N = 103)
Never	12 (40.0%)	18 (24.7%)	30 (29.1%)
Rarely	7 (23.3%)	14 (19.2%)	21 (20.4%)
Sometimes	3 (10.0%)	24 (32.9%)	27 (26.2%)
Often	4 (13.3%)	13 (17.8%)	17 (16.5%)
Always	4 (13.3%)	4 (5.5%)	8 (7.8%)

This outcome reflects that there is notable gender-based differences in disruptions in thought processes during tests. 40% of male respondents report that their mind never goes blank during tests, compared to 24.7% of female respondents, suggesting that males are more likely to remain mentally focused and have the ability to maintain mental clarity during tests. The result suggests that a large proportion of female respondents stated that their mind sometimes goes blank, in contrast to only 10% of males. Overall, this observation suggests that males experience fewer cognitive interruptions under test situations, unlike female respondents, who are more prone to occasional disruptions in cognitive performance.

The prevalence of exam anxiety levels (categorized as Extremely Low, Healthy, and Unhealthy) across male and female respondents was calculated

Table 3: Gender of the respondent * Anxiety level Cross tabulation

			Anxiety level			Total
			Extremely Low	Healthy	Unhealthy	
Gender of the respondent	Male	Count	12	15	3	30
		Expected Count	6.1	19.2	4.7	30.0
		% within the Gender of the respondent	40.0%	50.0%	10.0%	100.0%
		% within Anxiety level	57.1%	22.7%	18.8%	29.1%
		% of Total	11.7%	14.6%	2.9%	29.1%
	Female	Count	9	51	13	73
		Expected Count	14.9	46.8	11.3	73.0
		% within the Gender of the respondent	12.3%	69.9%	17.8%	100.0%
		% within Anxiety level	42.9%	77.3%	81.2%	70.9%
		% of Total	8.7%	49.5%	12.6%	70.9%
Total		Count	21	66	16	103
		Expected Count	21.0	66.0	16.0	103.0
		% within the Gender of the respondent	20.4%	64.1%	15.5%	100.0%
		% within Anxiety level	100.0%	100.0%	100.0%	100.0%
		% of Total	20.4%	64.1%	15.5%	100.0%

The cross-tabulation of the data collected for each of the two gender categories indicates that gender accounts for significant levels of anxiety differentiation among the respondents. Out of 103 respondents, 29.1% were males, while 70.9% were females. Among this cohort, males showed an estimated 40% towards showing extremely low levels of anxiety, which was much higher than the count that was expected, while in this category, females only accounted for 12.3% of this cohort. On the other hand, females were highly and more frequently represented in the healthy category of almost 69.9%, alongside their counterparts who exhibited signs of moderate to not-so-healthy associated anxiety of about 17.8%. These trends indicate that males tend to report lower anxiety levels, whereas females are more prone to both healthy and unhealthy anxiety.

The result derived from Pearson's chi-square test depicts the evidence of a relationship between gender and the level of anxiety reported among the respondents. The p-value and the test statistic of the Pearson chi-square values were 0.006 and 10.12, respectively. This p-value is below the 0.05 mark, making it significant; thus, the relationship between gender and anxiety levels is indeed significant.

Table 4: Chi-Square Tests

Particular	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.129 ^a	2	.006
Likelihood Ratio	9.404	2	.009
Linear-by-Linear Association	7.427	1	.006
N of Valid Cases	103		

a. 1 cell (16.7%) has an expected count less than 5. The minimum expected count is 4.66.

The probability of getting a ratio likelihood of 9.404 and a linear-by-linear association value of 7.427 ($p = 0.006$) helps sharpen the conclusion that gender and their anxiety levels are significantly associated. Although one cell (16.7 percent) shows an expected count figure below the 5 limits, the test remains valid because the minimum expected count, 4.66, is slightly below the cut-off mark. The result from the chi-square test, therefore, corroborates the findings from the cross-tabulation and confirms that there is a significant link between gender and anxiety levels. Research points out that males and

females have distinct distributions across the anxiety types, ranging from extremely low to healthy and unhealthy anxiety, thus indicating the need for addressing the mental health challenge in a gender-sensitive manner, thereby requiring research into gender factors that can explain these disparities.

4. CONCLUSION

Anxiety has been noted by research to be more common among women for various reasons, one being gender-based discrimination and violence (WHO, 2021), which may increase the likelihood of experiencing unhealthy anxiety. Meanwhile, those who have little to no access to coping mechanisms and mental support services tend to be from low-income communities (Herman, 1992). The nuances of gender issues were also brought out by the study on students with exam-related anxiety, which was among the several gender studies done. The important finding has highlighted that the female students were found to rate as having a higher level of unhealthy anxiety compared to the male students. More importantly, it has been found that, while the male students consider unhealthy anxiety to be low in amount, the female students say otherwise. On the other hand, men are culturally and socially discouraged from being more emotionally transparent, so they may underestimate their anxieties too low or display less (Connell, 2005). For a wide range of reasons, disappointing gender relations tend to accentuate anxiety and its damaging consequences, including huge stressors, which, in turn, can cause distress more evident in females than in males due to their greater social and economic constraints (Connell, 2005). Such gender gaps can be explained by both differences in social roles, adoption of heterogeneous coping strategies, exposure to psychological distress, and the requirement for gender-based or gender-aware mental health policies and more research on this. An open discussion about mental health and emotional well-being should be encouraged and supported, underpinned by the belief that seeking help is a sign of strength, not of weakness. In the note of conclusions, this study provides a deep analytical understanding of the prevalence of exam anxiety and stress, particularly focusing on gender differences. Identifying and coping with anxiety will be crucial to supporting students' best academic and emotional well-being. The ongoing research is providing the necessity to gain a better understanding of the high implication of anxiety, gender, and other relevant factors.

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