

Liberal Journal of Language & Literature Review

Print ISSN: 3006-5887

Online ISSN: 3006-5895

<https://llrjournal.com/index.php/11>

**IMPACT OF RESEARCH ANXIETY ON THESIS PROGRESS AND
ACADEMIC PRODUCTIVITY AMONG POSTGRADUATE
STUDENTS**



**Attiya Sultana¹, Hafiz Yaseen Khan^{*2},
Abdul Haseeb³, Shahida Yasmin⁴,
Ali Majid⁵, Ruby Fayaz Ahmad⁶, Muhammad Amin⁷,
Arsalan Maqsood⁸**

¹MSN Scholar University of Lahore

*^{*2}Department of Health Sciences, Yaseen Nexus Institute,
Peshawar, Pakistan*

*³Department of Software Engineering, Yaseen Nexus
Institute, Peshawar, Pakistan*

⁴Nursing instructor College of Nursing PIMS Islamabad

⁵Lincoln University College Malaysia

⁶Department of Psychology, air University Islamabad

*⁷Department of Architecture, Yaseen Nexus Institute,
Peshawar, Pakistan*

*⁸Department of Software Engineering, Yaseen Nexus
institute, Peshawar, Pakistan*

¹attiyazafar594@gmail.com,

*^{*2}dryaseenkhan11@gmail.com, ³ah909375@gmail.com,*

⁴Shahidayasmin172@gmail.com,

⁵amajid@lincoln.edu.my, ⁶rubyfayaz01@gmail.com,

⁷maminkhan2010@gmail.com,

⁸arsalankhanak149@gmail.com

Abstract

Background: *Research anxiety is a growing psychological issue among postgraduate students and may negatively affect their thesis progress and academic productivity. The demanding nature of research activities, combined with academic pressure and limited research training, contributes to increased stress levels in postgraduate education.*

Objective: *To assess the impact of research anxiety on thesis progress and academic productivity among postgraduate students.*

Methods: *A quantitative cross-sectional study was conducted among postgraduate students enrolled in MS, MPhil, and PhD programs. Data were collected using a structured questionnaire comprising research anxiety, thesis progress, and academic productivity scales. A total of 420 participants were included using stratified random sampling. Data were analyzed using statistical software with descriptive statistics, Pearson correlation, independent t-test, ANOVA, and multiple regression analysis.*

Results: *The study findings showed that a majority of participants experienced moderate to high levels of research anxiety. Research anxiety was significantly negatively correlated with thesis progress ($p < 0.01$) and academic productivity ($p < 0.01$). Regression analysis revealed that research anxiety was a significant negative predictor of both thesis progress and academic productivity. Supervisor support and research experience were identified as positive predictors of academic outcomes.*

Conclusion: *Research anxiety significantly affects thesis progress and academic productivity among postgraduate students. Reducing research anxiety through academic support, supervision, and skill development programs may enhance research performance and timely thesis completion.*

Keywords: *Research anxiety, thesis progress, academic productivity, postgraduate students, stress, research performance*

Introduction

Postgraduate education is a fundamental part of the development of science, innovation and professional growth. Postgraduate students are expected to be engaged in scholarly research, publish scientific works and submit their theses within a specific academic period at the universities. By engaging in research, the postgraduate students acquire analytical thinking, critical thinking and independent learning skills that play an important role in the advancement of both academia and society [1]. Although important in the academic world, postgraduate research is often accompanied by psychological stress, emotional burden and academic stress that can negatively affect students' well-being and academic achievement [2].

Research anxiety is among the psychological problems of postgraduate students, which has become a serious issue in higher education institutions across the world. The anxiety experienced due to

Liberal Journal of Language & Literature Review

Print ISSN: 3006-5887

Online ISSN: 3006-5895

research-related activities like selection of research topic, literature survey, methodology development, data collection, statistical analysis, writing of the thesis, and dissertation defence is called 'research anxiety' [3]. A moderate amount of stress can help improve motivation and concentration, but stress that is too high can lead to problems in concentration, confidence, decision-making, and academic productivity [4]. Postgraduate students are frequently required to meet tight deadlines for academic work, the pressure to publish, financial constraints, and demands from their supervisor, which can all add to their anxiety during the research process [5].

One of the most stressful tasks for postgraduate students is thesis writing. Research work demands higher-order thinking skills, self-learning, critical thinking and time management skills; these are challenging for many students [6]. Earlier research has shown that postgraduate students often suffer from emotional stress in the process of preparing proposals, data collection, performing statistical analysis, interpreting the data and preparing the manuscript [7]. Students might feel intimidated by criticism, feel that they do not excel at school, or fail to feel confident in their abilities, which leads to a lower level of motivation and a higher level of psychological stress [8].

The prevailing narrative from the recent literature is that anxiety and psychological distress are growing as a problem for postgraduates. Research done worldwide has proven that postgraduate students' levels of anxiety, stress and depression are significantly higher than those of the general population and their undergraduate counterparts [9]. The difficulty of research activities and the need to obtain academic results in relatively short periods are considered to be major causes of this vulnerability [10]. It has also been found that chronic academic stress has detrimental effects on memory, attention, cognition, and emotions, which are crucial for good research work [11].

Problems with understanding research methodology and statistical procedures are one of the big factors in research anxiety. Research design selection, sampling technique, interpretation of statistical results and operating of statistical software are difficulty issues for many postgraduate students [12]. One of the most frequently cited obstacles to postgraduate students' confidence and research results is statistical anxiety [13]. Students' perception of statistics is often complex and difficult, accompanied by low self-confidence, making students afraid to do research-related activities [14]. Lack of adequate research training and inadequate methodological knowledge can also add to the stress levels and adversely impact the progress of the student's thesis [15].

Postgraduate students' research problems are also attributed to academic writing anxiety to a great extent. Students need to critically analyse literature, arrange information in a scientific manner, and effectively communicate ideas in formal academic language to write their thesis. Students often suffer from anxiety about the quality of their writing, grammatical correctness, plagiarism and apprehension that their writing would be judged poorly by the supervisors or reviewers [17]. Writing anxiety can lead to procrastination, late thesis submission, less publication productivity and emotional exhaustion among postgraduate students [18].

Factors related to supervisors also have influence on the research experiences of postgraduate students. The successful completion of the thesis and academic productivity are regarded as possible if the supervision is effective [1]. Supervisors offer guidance in the academic aspect, methodological support, feedback and motivation during the research process [2]. Positive supervisory relationships can boost the confidence, research self-efficacy and academic engagement of students, while negative communication, delayed feedback, lack of support and expectations that are too high can lead to increased anxiety and dissatisfaction with the academic situation among postgraduate students [3]. Some research has shown that lack of support from a supervisor is related to delayed thesis writing

Liberal Journal of Language & Literature Review

Print ISSN: 3006-5887

Online ISSN: 3006-5895

and poor academic wellbeing [4].

Research anxiety can have a significant impact on thesis writing among postgraduates. The term 'thesis progress' is used for the timely completion of various phases of the research, such as writing the thesis proposal, obtaining ethical approval, collecting data, analysing and interpreting the data and finally submitting the thesis. Students with high anxiety levels can exhibit poor concentration, indecisiveness, low motivation, and avoidance of research-related tasks [6]. These psychological problems might hinder the research activity and decrease the students' ability to be persistent in the research activity on their thesis [7]. In addition, anxiety-induced stress can lead to frustration and emotional fatigue, which can, in turn, impact students' perseverance and dedication to finishing their thesis [8].

Research anxiety is a common issue among postgraduate students that is associated with academic procrastination. Procrastination is defined as the deliberate deferral of schoolwork in the face of an awareness of the negative outcomes of such delay [9]. Anxiety could make students delay research activities due to the fear of failure, perfectionism, and doubts that they have in research skills [10]. These delays can further heighten stress, lower productivity, and ultimately result in a vicious cycle that further contributes to stress [11]. Some students may become so accustomed to procrastination that they miss their graduation dates, reduce their satisfaction with their learning, and suffer psychological exhaustion [12].

Research anxiety not only hampers progression on a thesis but can also have negative effects on academic productivity. Academic productivity is the capacity of a student to generate scholarly works that could be in the form of publications, conference presentations, thesis chapters, research reports, and other academic inputs [13]. An important indicator of the success of postgraduate studies and research competence is high academic productivity [14]. Anxiety can, however, affect the cognitive functions, creativity, motivation and problem-solving skills of students, which decreases their research efficiency and productiveness [15]. Research has demonstrated that students with high anxiety tend to have lower levels of academic engagement and research performance and less productivity of publications [16].

Self-efficacy in research has also been found to be one of the critical factors related to research anxiety and success in academic research. Students' self-efficacy in any aspect of research is called research self-efficacy [17]. Generally students with high research self-efficacy tend to be more motivated, resilient and productive in school, while those with low confidence are more susceptible to academic avoidance behaviours and anxiety [18]. Previously available research indicates a possible decrease in confidence and negative impact on research activities as a result of anxiety among students [1].

There are other factors like institutional and environmental factors that can also add to the research anxiety of postgraduate students. While some universities may have limited resources for research, lack mentorship programmes, have poor library resources, and lack support for mental health conditions, these circumstances may be unintentional causes of academic stress among students. Some universities may have limited resources for research, lack mentorship programmes, have poor library resources and have poor mental health support services, all of which may be unintentional causes of academic stress among students. There are several other problems faced by the postgraduate students in the developing countries like Pakistan, such as financial problems, scarcity of technological facilities, inadequate research training and excessive workload [3]. These problems can have adverse psychological impacts on students and lower their effectiveness in conducting research activities efficiently [4].

Liberal Journal of Language & Literature Review

Print ISSN: 3006-5887

Online ISSN: 3006-5895

Although there is increasing awareness of the importance of student mental health, few studies have specifically focused on the influence of research anxiety on the progress of the thesis and academic productivity of postgraduate students, especially in developing countries [5]. Much research has been conducted on academic stress and psychological distress, but there is limited research focused on research anxiety as a separate entity that impacts postgraduate researchers [6]. Additionally, numerous studies have discussed the difficulties in thesis completion and academic productivity individually, without addressing the connection between research anxiety, progress on the thesis, and academic productivity together [7].

The impact of research anxiety is important since the postgraduates are the future academics and researchers of the society [8]. The factors facilitating research anxiety could help the universities and policymakers design effective interventions to enhance the mental health and research performance of postgraduate students [9]. Various strategies and interventions may be used to cope with anxiety and boost research productivity for postgraduates, including research training workshops, academic mentoring, counselling, stress management, and communication between supervisor and student [10]. Thus, the present study is an attempt to understand the effects of research anxiety on progress in writing a thesis and academic productivity of the postgraduate students. The study aims to explore the impact of anxiety related to research activities on students' progression in thesis work and their satisfactory academic productivity. The study may also offer useful information for education institutions, supervisors and policymakers to enhance the research environments for postgraduates and promote their academic and psychological health and welfare [11].

Methodology

This study used a quantitative cross-sectional analytical research design to examine the effect of research anxiety on the progress of thesis writing and academic productivity of postgraduate students. A cross-sectional design was deemed to be appropriate because it could determine the relationships between research anxiety and academic outcomes at one point in time and provide data from a relatively large number of students in a reasonably short time period [12]. The study was carried out in two types of universities, namely public and private universities that offer postgraduate education in the form of Master of Science (MS), Master of Philosophy (MPhil) and PhD. To ensure diversity and representativeness, participants were recruited from a wide range of academic disciplines, including health sciences, social sciences, education, management sciences and natural sciences.

The target population was comprised of postgraduate students actively involved in a thesis/dissertation. The study included students who had studied for at least one semester at the postgraduate level and were enrolled in either a PhD or MPhil degree. Students at the postgraduate level for at least one semester and pursuing either an MPhil or PhD degree were included in the study. Participants had to give informed consent and agree to participate in the research. The students who had not started thesis work, undergraduate students and students with incomplete responses on the questionnaire were excluded from this study.

The sample size was determined by using Cochran's formula for cross-sectional studies, which is represented as

$$n = \frac{Z^2 pq}{d^2}$$

Where (n) is the number of samples necessary, (Z) is the standard normal variate for a 95% confidence interval (Z = 1.96), (p) is the estimated prevalence, (q = 1-p), and (d) is the margin of error (d = 0.05). As there was limited local study data available regarding the prevalence of research anxiety among

Liberal Journal of Language & Literature Review

Print ISSN: 3006-5887

Online ISSN: 3006-5895

postgraduate students, it was assumed that 50% prevalence would get the maximum sample size. The sample size calculated was about 384 participants. To account for the non-response bias and for some response items that were not completed, an additional 10% was added on to the sample, yielding a total of approximately 420 postgraduate students [13].

The sample consisted of stratified random sampling from various universities and faculty fields. The universities and departments were classified initially in terms of academic programmes and faculties as strata. Within each stratum, participants were then sampled proportionately to ensure representation of the postgraduate students across the various educational strata [14].

A four-part structured self-administered questionnaire was used to gather data. The first section gathered data about demographics and academic backgrounds, such as age, gender, marital status, academic degree, field of study, year of study, and previous research experience. The second section was an adaptation of a validated research anxiety scale from previous studies [15] to measure research anxiety. The scale assessed anxiety regarding literature review, research methodology, statistical analysis, academic writing, data collection, thesis defence and publication stress. It was assessed on a 5-point Likert scale from 1 = strongly disagree to 5 = strongly agree, with the higher scores representing a higher level of research anxiety.

The third section was evaluated by a researcher-made questionnaire, based on previous literature [16]. This section assessed participants' development of their proposal, submission of their chapter, data collection, data analysis, punctuality with academic deadlines, and participant satisfaction with the development of their thesis. The fourth section assessed academic productivity in terms of publications, conference participation, academic presentations, writing productivity, and academic engagement. The Academic Productivity Scale was modified from previous research on academic productivity [17].

The questionnaire had been validated for content by experts who are experienced in research methodology, psychology and higher education. The experts assessed the relevance, clarity and appropriateness of the items in the questionnaire. Modifications were made as per expert suggestions in order to enhance the comprehensiveness and clarity of the instrument. To determine feasibility and reliability of the questionnaire, a pilot study was conducted on about 10% of the estimated sample size prior to the main data collection period. All the data collected in the pilot study were not included in the final analysis.

Cronbach's alpha coefficient was used to test the reliability of the questionnaire.

The acceptable internal consistency of reliability was evidenced by Cronbach's alpha coefficient of 0.70 or above [18].

After getting ethical clearance from the institution's ethical review committee, relevant authorities from the university were contacted prior to the commencement of data collection. Physical and electronic communication with the participants was done by the departmental coordinators and postgraduate student forums. All subjects were informed of the purpose and the aims of the study, and informed consent was sought before the questionnaire was administered. Participants were assured that their participation was voluntary and that confidentiality and anonymity of their information would be maintained throughout the study.

To ensure the questionnaire was accessible to participants and for maximum response, the questionnaires were sent out online as well as in print. The participants were provided with enough time to fill their questionnaires without any influence. Personal identifiers were not collected, and all collected data was kept safely for research only.

Liberal Journal of Language & Literature Review

Print ISSN: 3006-5887

Online ISSN: 3006-5895

The data were entered and analysed with SPSS version 26. Demographic characteristics and study variables were summarised using descriptive statistics such as frequency, percentage, mean and standard deviation. To know the interrelationship between research anxiety, progress of the thesis and academic productivity, inferential statistical analyses were used. One-way ANOVA and independent t-tests were used to compare means between demographic groups. Pearson correlation analysis was used to identify the correlation between research anxiety and academic outcomes, and multiple linear regression analysis was employed to determine the predictive significance of the research anxiety on the progress of the thesis and academic productivity. The p value was considered statistically significant at < 0.05 for all analyses.

RESULTS

A total of 420 postgraduate students participated in the study. The data were analyzed to determine the impact of research anxiety on thesis progress and academic productivity among postgraduate students. Findings are presented using descriptive statistics, group comparisons, correlation analysis, and regression analysis.

Table 1: Demographic Characteristics of Participants

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	198	47.1
	Female	222	52.9
Age Group	22–26 years	174	41.4
	27–31 years	161	38.3
	≥ 32 years	85	20.2
Degree Program	MS	146	34.8
	MPhil	182	43.3
	PhD	92	21.9
Marital Status	Single	281	66.9
	Married	139	33.1
Research Experience	<1 year	168	40.0
	1–3 years	179	42.6
	>3 years	73	17.4

The demographic profile of participants is shown in Table 1. The majority of participants were female (52.9%). Most students were in the age group of 22–26 years (41.4%). Regarding academic level, MPhil students formed the largest group (43.3%), followed by MS (34.8%) and PhD students (21.9%). Most participants were single (66.9%) and had 1–3 years of research experience (42.6%).

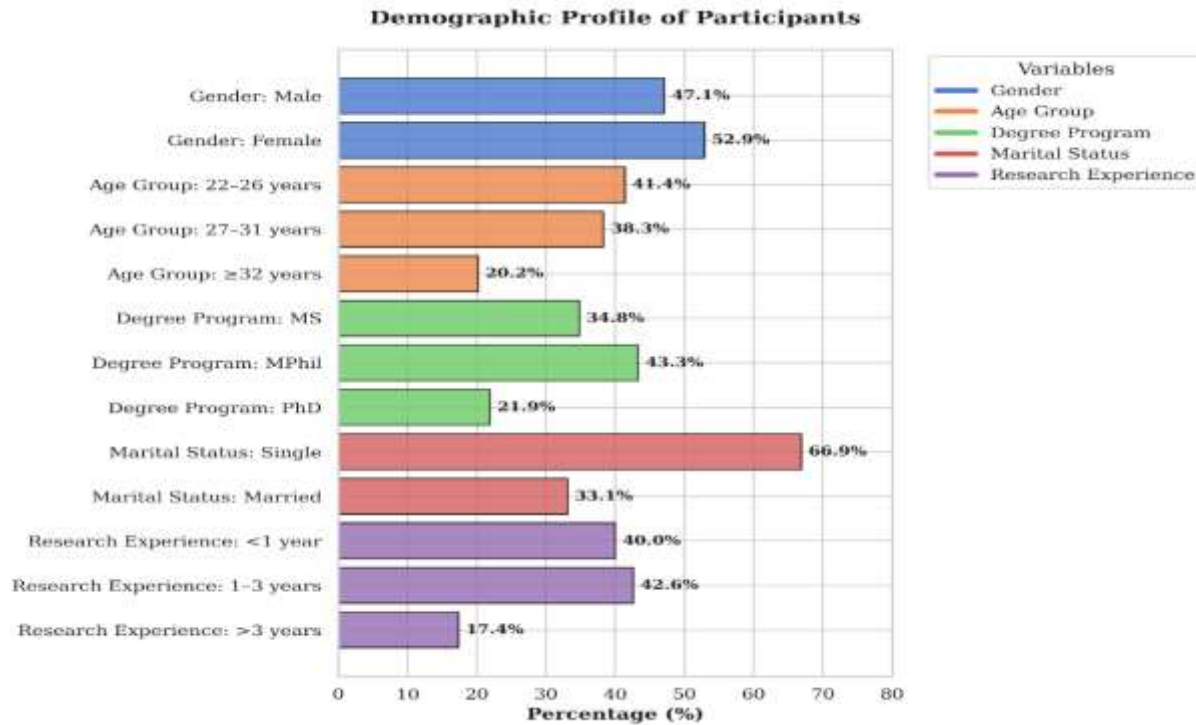


Figure 1: Demographic Characteristics of Participants

Table 2: Descriptive Statistics of Study Variables

Variable	Mean	SD
Research Anxiety	72.45	11.28
Thesis Progress	58.17	9.64
Academic Productivity	54.83	10.21

Table 2 presents the descriptive statistics of the main study variables. The mean research anxiety score was 72.45 ± 11.28 , indicating a moderate-to-high level of anxiety among participants. The mean thesis progress score was 58.17 ± 9.64 , while academic productivity had a mean score of 54.83 ± 10.21 .

Table 3: Levels of Research Anxiety

Level	Frequency (n)	Percentage (%)
Low	74	17.6
Moderate	201	47.9
High	145	34.5

As shown in Table 3, nearly half of the participants (47.9%) experienced moderate research anxiety, while 34.5% reported high anxiety levels. Only 17.6% of students reported low research anxiety.

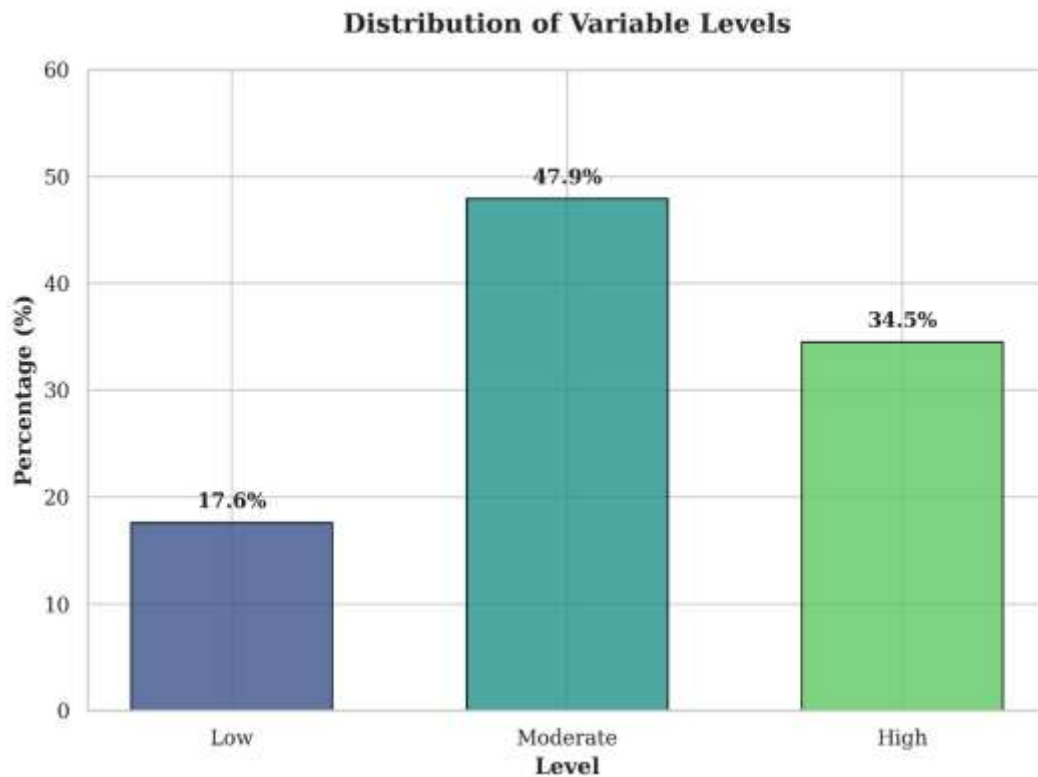


Figure 2: Levels of Research Anxiety

Table 4: Correlation between Research Anxiety, Thesis Progress, and Academic Productivity

Variables	Research Anxiety	Thesis Progress	Academic Productivity
Research Anxiety	1	-0.621**	-0.587**
Thesis Progress	-0.621**	1	0.684**
Academic Productivity	-0.587**	0.684**	1

Pearson correlation analysis revealed a significant negative relationship between research anxiety and thesis progress ($r = -0.621$, $p < 0.01$). A significant negative correlation was also observed between research anxiety and academic productivity ($r = -0.587$, $p < 0.01$). Thesis progress showed a strong positive correlation with academic productivity ($r = 0.684$, $p < 0.01$).

Table 5: Comparison of Research Anxiety by Gender

Gender	Mean \pm SD	t-value	p-value
Male	69.31 \pm 10.44	4.126	0.001
Female	75.24 \pm 11.67		

An independent t-test showed a significant difference in research anxiety between genders. Female students reported significantly higher research anxiety compared to male students ($p = 0.001$).

Liberal Journal of Language & Literature Review

Print ISSN: 3006-5887

Online ISSN: 3006-5895

Table 6: Research Anxiety Across Degree Programs

Program	Mean \pm SD	F-value	p-value
MS	68.42 \pm 10.31	8.417	0.001
MPhil	72.86 \pm 10.92		
PhD	77.14 \pm 12.03		

One-way ANOVA indicated a significant difference in research anxiety among degree programs ($p = 0.001$). PhD students showed the highest anxiety levels, followed by MPhil and MS students.

Table 7: Regression Analysis Predicting Thesis Progress

Predictor	β	t-value	p-value
Research Anxiety	-0.542	-8.611	0.001
Supervisor Support	0.317	5.462	0.001
Research Experience	0.228	4.121	0.002

Regression analysis revealed that research anxiety significantly negatively predicted thesis progress ($\beta = -0.542$, $p = 0.001$). Supervisor support and research experience positively influenced thesis progress.

Table 8: Regression Analysis Predicting Academic Productivity

Predictor	β	t-value	p-value
Research Anxiety	-0.487	-7.984	0.001
Thesis Progress	0.511	8.327	0.001
Supervisor Support	0.266	4.948	0.003

Multiple regression analysis showed that research anxiety significantly reduced academic productivity ($\beta = -0.487$, $p = 0.001$). Thesis progress and supervisor support significantly improved academic productivity among postgraduate students.

Table 9: Factors Contributing to Research Anxiety

Factor	Frequency (n)	Percentage (%)
Statistical Analysis Difficulty	298	71.0
Publication Pressure	274	65.2
Thesis Writing Stress	266	63.3
Time Management Issues	239	56.9
Fear of Failure	247	58.8
Lack of Supervisor Support	211	50.2

The most common factor contributing to research anxiety was difficulty in statistical analysis (71.0%), followed by publication pressure (65.2%) and thesis writing stress (63.3%). Fear of failure and time management issues were also frequently reported.

DISCUSSION

The present study examined the effect of research anxiety on the progress of theses and academic productivity of postgraduate students. The findings revealed that research anxiety is very high, and it was found significant with the reduced progress of thesis and academic productivity. Overall, the findings suggest that research anxiety is not merely a psychological reaction to academic pressure but has a significant impact on students' research performance and tends to hinder their completion of research assignments and their production of scholarly work.

One of the major results of the present study was that a considerable number of the postgraduate students suffered from moderate to severe research fear. This result is in line with the previous studies that showed that education at the postgraduate level is stressful because of the complexity and independence needed in conducting their research [17]. The high rate of anxiety might be explained by the uncertainty about the research methodology, lack of training in how to perform statistical analysis and lack of confidence in academic writing. This is consistent with previous research which has indicated that emotional distress is common among postgraduate students while composing their thesis, especially at the advanced stages of the study [18].

The study also found that there was a significant negative correlation between research anxiety and thesis progress. This means that the more anxious one is, the more likely they are to have a slower or delayed progression in research activities. The theoretical model of the transactional model of stress and coping posits that when faced with high stress, people might avoid coping strategies, thus decreasing their engagement with the task and productivity [19]. For the postgraduate students, anxiety can be manifested as procrastination, inability to reach decisions, and reluctance to participate in complicated research activities like data analysis and writing. These results are consistent with previous studies, which have found research anxiety to be associated with delayed thesis completion and decreased academic persistence [20].

One of the important findings was the very strong negative correlation between research anxiety and academic productivity. Higher anxiety levels were associated with decreased productivity as measured by research output, publications and academic engagement. This is in line with previous studies that show anxiety has a negative effect on cognitive functions such as attention, working memory, and problem-solving skills [21]. Such cognitive deficits can directly impact students' academic output. Moreover, emotional exhaustion experienced as an emotion related to anxiety has been linked to burnout, which is a well-known phenomenon among postgraduate students that is associated with a reduction in academic productivity [22].

The findings also revealed a positive correlation between the thesis progress and academic productivity. This implies that students that are making regular progress in their thesis have a higher chance of engaging in constructive academic pursuits like publishing research papers and contributing to academic discussions. This discovery aligns with findings that research structures help build confidence and motivation, which are important factors in academic achievement [23]. Self-efficacy theory suggests that self-efficacy relates to performance, with people who feel more confident in their ability to succeed more likely to attempt the difficult task and succeed [24].

A difference in research anxiety was also found between female and male students—females were significantly more anxious than males. The result aligns with the previous study, which indicated that the female postgraduate students may have more psychological stress because of their various academic and social responsibilities [25]. Furthermore, cultural and societal norms might exacerbate

pressure for female students, especially in areas where priorities of the academic and socio-cultural roles are difficult to balance.

It was also observed that there was more research anxiety among the PhD students than among MS and MPhil students. This can be attributed to the growing complexity, autonomy and publication pressure of doctoral study. The expectations on the PhD students are to bring original knowledge to the table, publish in high-impact journals and execute major research projects in a short period of time. This may greatly raise the level of psychological pressure and anxiety [26].

Results of regression analysis showed that research anxiety was significant in predicting thesis progress and academic productivity. Anxiety was consistently and highly correlated with performance as a predictor, even when other factors like supervisor support and research experience were taken into account. This discovery is interesting because it emphasises how important psychological factors are in academic achievement and indicates that psychological and academic interventions are both required to enhance research outcomes.

The presence of a supervisor was identified as a strong positive predictor of progress in writing a thesis and academic productivity. This result is in line with the previous studies which highlighted the need for good supervision in postgraduate education [27]. Clear and responsive supervision can help to minimise uncertainty, deliver feedback promptly, and boost students' confidence, which ultimately helps to lower anxiety. On the other hand, the absence of supervision or inadequate communication could exacerbate stress and hinder research advances.

Some of the major factors identified in the study surrounding research anxiety were finding statistical analysis difficult to do, publication pressure, stress in writing the thesis, fear of failure and time management problems. Of these, the most important was the statistical analysis. This includes a high level of statistical anxiety among postgraduate students, which is reported in earlier studies [28]. It may also be due to the rise in anxiety because of perceived academic pressure as a result of the greater and more stringent focus on publications in international journals.

Theoretically, these results can be explained by the Cognitive Load Theory [29], which states that high cognitive load decreases the efficiency of the working memory and the performance. Students may be anxious about writing academic papers or analysing data, thus requiring a lot of cognitive resources, and if that is the case, it might end up straining students' cognitive abilities, resulting in less productivity.

These results are of special significance in the context of developing countries, where mental health support services are scarce, mental health supervision systems are not well established, and there is limited or inadequate training in mental health research. Such structural issues can further exacerbate research anxiety and have a negative effect on the quality of postgraduate education [30].

While this study has its merits, it also has some limitations. Limited causal interpretation of findings because of a cross-sectional design. Self-reported measures can have response bias. Further, the study was limited to selected universities, and this may not provide generalisability. Continuous and mixed method studies are suggested in the future to investigate causal pathways and deeper psychological mechanisms.

Finally, the results of the present study prove that research anxiety is one of the most serious psychological hurdles which adversely impacts thesis construction and academic productivity of postgraduate students. The results of this study emphasise the importance of implementing academic and psychological support systems in universities to improve the performance of postgraduates in research.

Liberal Journal of Language & Literature Review

Print ISSN: 3006-5887

Online ISSN: 3006-5895

Conclusion

This study's findings indicated that research anxiety is a significant challenge which is very common in postgraduate students and adversely affects thesis progress and academic productivity. Research anxiety was related to thesis completion delay, decreased research productivity, and decreased research activity. The findings reveal that research anxiety is a major psychological obstacle which hinders the effective research performance and academic performance of students.

Further, thesis progression was found to be positively correlated with the academic productivity, suggesting that advancing the thesis can positively impact academic production. Supervisor support and research experience were found to be important protective factors that help to enhance the progress of a thesis and the level of academic productivity. In conclusion, the study highlights the need to tackle research anxiety to enhance the performance of post-graduate researchers and timely completion of their degrees.

Author Contributions

Attiya Sultana: Conceptualization, data collection, literature review, manuscript drafting, and coordination of research activities.

Hafiz Yaseen Khan: Study supervision, methodology development, statistical analysis, critical revision of manuscript, and final approval of the version to be published.

Abdul Haseeb: Data management, software support, statistical interpretation, and manuscript formatting.

Shahida Yasmin: Questionnaire validation, participant coordination, literature review support, and data acquisition.

Ali Majid: Research design consultation, academic review, and critical intellectual input in manuscript preparation.

Ruby Fayaz Ahmad: Psychological framework development, interpretation of anxiety-related findings, and critical review of the discussion section.

Muhammad Amin: Data organization, graphical presentation of results, and assistance in manuscript editing.

Arsalan Maqsood: Technical support, SPSS data entry assistance, proofreading, and reference management.

All authors contributed substantially to the study, reviewed the manuscript critically for important intellectual content, approved the final manuscript, and agreed to be accountable for all aspects of the work.

Conflict of interest: None

Funding source: No external funding

References

Evans TM, Bira L, Gastelum JB, Weiss LT, Vanderford NL. Evidence for a mental health crisis in graduate education. *Nat Biotechnol.* 2018;36(3):282-284. doi:10.1038/nbt.4089.

White N, Milicev J, Bradford DRR, Rodger A, Gardani M. The mental labyrinth of postgraduate research: a qualitative study of postgraduate mental health and wellbeing and the impact of the

Liberal Journal of Language & Literature Review

Print ISSN: 3006-5887

Online ISSN: 3006-5895

- supervisory relationship. *High Educ.* 2024;87(5):1211-1226. doi:10.1007/s10734-023-01061-5.
- Barry KM, Woods M, Martin A, Stirling C, Warnecke E. Evaluating mental health and wellbeing of postgraduate researchers: prevalence and contributing factors. *Curr Psychol.* 2023;42(15):12267-12280. doi:10.1007/s12144-021-02309-y.
- Geertshuis S, Liu Q. An exploration of the relationships between emotional well-being, learning behaviour, and academic success in postgraduate students who combine work with study. *Educ Sci.* 2024;14(8):868. doi:10.3390/educsci14080868.
- Ma Y, Yu A, Ma H, Zhao Y, Liu X, Zhai H, et al. A narrative review of anxiety regulation in PhD students based on Green model. *Front Psychol.* 2024;15:1351386. doi:10.3389/fpsyg.2024.1351386.
- Senyamator F, Abreh MK, Domaley V, Mills CA, Ahorsu-Walker J. Determinants of postgraduate thesis completion: do academic stress and burnout play a role? *Afr Educ Rev.* 2024;21(2):73-95. doi:10.1080/18146627.2024.2311885.
- Lindahl J. Doctoral students' research productivity during COVID-19: the effect of gender, parenthood, and conscientiousness. *Eur J High Educ.* 2024;14(4):509-535. doi:10.1080/21568235.2023.2225137.
- Lipson SK, Zhou S, Abelson S, Heinze J, Jirsa M, Morigney J, et al. Trends in college student mental health and help-seeking by race/ethnicity: findings from the national healthy minds study, 2013-2021. *J Affect Disord.* 2022;306:138-147. doi:10.1016/j.jad.2022.03.038.
- Martin AJ. Academic buoyancy and academic outcomes: towards a further understanding of students with anxiety and stress in higher education. *Educ Psychol Rev.* 2021;33(2):547-570. doi:10.1007/s10648-020-09533-4.
- Cassady JC, Johnson RE. Cognitive test anxiety and academic performance. *Contemp Educ Psychol.* 2020;61:101844. doi:10.1016/j.cedpsych.2020.101844.
- Farooqi MTK, Hussain R, Qayinat I. Relationship of time planning with postgraduate students' anxiety. *Glob Sociol Rev.* 2024;9(3):108-116. doi:10.31703/gsr.2024(IX-III).10.
- Soomra NUA, Ahmad I, Muntaha ST, Aslam J. The influence of positive thinking interventions on reducing academic stress among postgraduate students during thesis writing. *Soc Sci Rev Arch.* 2024;2(2):1099-1108. doi:10.70670/sra.v2i2.160.
- Farahmita N, Paramita PP. Effectiveness of cognitive behavior therapy for lowering academic anxiety in graduate students completing thesis. *Psikostudia J Psikol.* 2024;13(2):215-223.
- Stubb J, Pyhältö K, Lonka K. Balancing between inspiration and exhaustion: doctoral students' experienced socio-psychological well-being. *Stud Contin Educ.* 2020;42(1):33-50. doi:10.1080/0158037X.2019.1600360.
- Pyhältö K, Vekkailla J, Keskinen J. Exploring the fit between doctoral students' and supervisors' perceptions of resources and challenges vis-à-vis the doctoral journey. *Int J Dr Stud.* 2021;16:395-414. doi:10.28945/4824.
- Devos C, Boudrenghien G, Van der Linden N, Azzi A, Galand B, Frenay M. Doctoral students' experiences leading to completion or attrition: a matter of sense, progress and distress. *Eur J Psychol Educ.* 2017;32(1):61-77. doi:10.1007/s10212-015-0290-0.
- Onwuegbuzie AJ, Wilson VA. Statistics anxiety: nature, etiology, antecedents, effects, and treatments. *Teach High Educ.* 2021;26(4):456-482. doi:10.1080/13562517.2020.1722621.
- Mazzola JJ, Walker EJ, Shockley KM, Spector PE. Examining stress in graduate assistants:

Liberal Journal of Language & Literature Review

Print ISSN: 3006-5887

Online ISSN: 3006-5895

- combining qualitative and quantitative survey methods. *J Mix Methods Res.* 2020;14(2):195-211. doi:10.1177/1558689819879335.
- Schmidt M, Hansson E. Doctoral students' well-being: a literature review. *Int J Qual Stud Health Well-being.* 2018;13(1):1508171. doi:10.1080/17482631.2018.1508171.
- Sverdlik A, Hall NC, McAlpine L, Hubbard K. The PhD experience: a review of the factors influencing doctoral students' completion, achievement, and well-being. *Int J Dr Stud.* 2018;13:361-388. doi:10.28945/4113.
- Levecque K, Anseel F, De Beuckelaer A, Van der Heyden J, Gisle L. Work organization and mental health problems in PhD students. *Res Policy.* 2017;46(4):868-879. doi:10.1016/j.respol.2017.02.008.
- Woolston C. PhDs: the tortuous truth. *Nature.* 2019;575(7782):403-406. doi:10.1038/d41586-019-03459-7.
- Lazarus RS, Folkman S. *Stress, appraisal, and coping.* New York: Springer Publishing; 1984.
- Bandura A. *Self-efficacy: the exercise of control.* New York: W.H. Freeman; 1997.
- Creswell JW, Creswell JD. *Research design: qualitative, quantitative, and mixed methods approaches.* 6th ed. Thousand Oaks (CA): Sage Publications; 2023.
- Hair JF, Black WC, Babin BJ, Anderson RE. *Multivariate data analysis.* 9th ed. Andover: Cengage Learning; 2022.
- Sekaran U, Bougie R. *Research methods for business: a skill-building approach.* 9th ed. Hoboken (NJ): Wiley; 2020.
- UNESCO. *Global education monitoring report 2023: technology in education.* Paris: UNESCO Publishing; 2023.
- American Psychological Association. *Stress in America 2023: a nation recovering from collective trauma.* Washington (DC): APA; 2023.
- Zimmerman BJ, Schunk DH. *Self-regulated learning and academic achievement theory, research, and practice.* 3rd ed. New York: Springer; 2023.