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Research Attitude and Anxiety as Emotional Determinants of the Researchers' Experience: An Empirical Study

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Abstract

Research has emerged as a prominent and evolving professional pursuit in the twenty-first century, necessitating a deeper understanding of the emotional factors that influence the research process. The study seeks to examine the emotional challenges encountered by research scholars, with particular emphasis on research attitude and research anxiety. Two primary objectives are proposed. First, it aims to analyze the emotional dimensions of research by exploring scholars' attitudes toward research and the anxiety experienced during the research process. Second, it seeks to empirically investigate the relationship between research attitude and research anxiety in order to assess their combined impact on the overall research experience of doctoral scholars. To address these objectives, a comprehensive review of existing literature will be conducted through a systematic search of the Scopus database using relevant keywords such as research attitude, research anxiety, and research scholars. Bibliometric analysis using VOSviewer will be employed to identify prevailing research trends and existing gaps. Based on the identified gaps, a descriptive research design will be adopted. Primary data will be collected from doctoral research scholars across higher education institutions using a structured questionnaire administered via Google Forms, employing a probability sampling technique to ensure representativeness. Data analysis will be carried out using SPSS through appropriate descriptive and inferential statistical methods. The findings are expected to highlight the influence of demographic variables such as gender and marital status on research attitude and research anxiety, underscoring the importance of institutional support and stress management interventions to foster sustainable research practices.

Keywords: Attitude; Anxiety; Emotional; Research Scholar; Education

1. Introduction

Since the famous incident of the apple falling, human curiosity has been piqued in myriad ways, giving rise to both rational and irrational questions that we now recognize as research inquiries. Research required a recommendation and strong intuition, pragmatic and rational approach toward meaningful and efficient outcomes (Zimik, 2023; Zimik & Barman, 2021; Zimik & Barman, 2022). It is described as a systematic process that seeks to understand and manipulate observed phenomena by using both inductive and deductive methods (Salah, 2024; Streefkerk, 2023). Casad & Luebering, (2025) and Bouchrika (2025), has wisely identify research as when people try to find out more about things by looking at them closely. It helps people learn new things and come up with new ideas in many different areas. Creswell (2014) in his statement defined research as a procedure of steps used to collect data and analyze information to increase our understanding of a topic or issue. Research attitude and research anxiety are the key factors that impact how involved, successful, and happy students are (Thongsri et al., 2024; Rožman et al., 2025; Kandari, 2019). Even though these are different, they influence each other. The pragmatic outcomes of this research will not only be disseminated through conventional means, such as conference contributions but will also cast a brighter light on the tribulations endured by scholars. As jointly articulated by Chandran (2023) and Schmidt et al (2020) that the consciousness of various stakeholders involved in the scholarly process is vital. By shedding light on these issues, this study aims to contribute not only to the academic discourse but also to the

broader understanding of the challenges faced by those who tread the path of intellectual inquiry and discovery.

Research Anxiety

The word Anxiety is derived from the Latin word Anxius, which means 'uneasy, troubled in mind. According to Barlow, 2000 "Anxiety is defined as a future-oriented mood state in which one is not ready or prepared to attempt to cope with upcoming negative events." Research anxiety can be a "Feeling of fear and uncertainty concerning conducting research and creating authentic scientific productions and the effecter" (Smith et al., 1995).

Research Attitude

As per the Cambridge Dictionary, attitude is defined as "a feeling or opinion about something or someone, especially when this shows in your behavior." It can be positive, negative, or neutral, influencing decision-making and behavior. "Attitudes are evaluative statements, either favorable or unfavorable concerning objects, people or events." (Robbins, 2007). "The research attitude is primarily about thinking, feeling, and the individual's research behavior. It also defines the behavior of a person in the field of research and the importance he gives to the different aspects of research." (Zain et al, 2022).

Accordingly, the study has four objectives and three tested hypotheses.

Objectives

- To examine the levels of Research Attitude and Research Anxiety among Ph.D. scholars.
- To examine the differences in Research Attitude and Research Anxiety among Ph.D. scholars with respect to gender.
- To analyze the differences in Research Attitude and Research Anxiety among Ph.D. scholars concerning marital status.
- To determine the relationship between Research Attitude and Research Anxiety among Ph.D. scholars.

Hypotheses

- There is no significant difference in Research Attitude between married and unmarried Ph.D. scholars.
- There is no significant difference in Research Anxiety between married and unmarried Ph.D. scholars.
- There is no significant relationship between Research Attitude and Research Anxiety among Ph.D. scholars.

2. Literature Review

Sivagami and Sugasini (2020) conducted a study aiming to examine the attitude towards research among science and arts stream research scholars, with focus on gender differences. Bhagavathula et al., (2017) conducted a cross-sectional study to assess the attitudes of and the primary challenges identified by students included a lack of motivation, time constraints, insufficient research experience, and limited access to research funding. To make the study more interesting, Hofmann and Holm (2019) carried out an investigation to identify the integrity of the research context by adopting a descriptive methodology. Rajpal (2020) has carried a serious study in this domain by adopting a descriptive methodology and found that research scholars exhibited a slightly more positive research attitude than female scholars, though the difference was not statistically significant. In the same vain, Savitha and Krishnamurthy (2023) conducted a study to evaluate research scholars' awareness of academic integrity by adopting a mixed-methodds approach inferred that a positive attitude towards academic integrity, with most participants viewing plagiarism as unethical and against their academic principles.

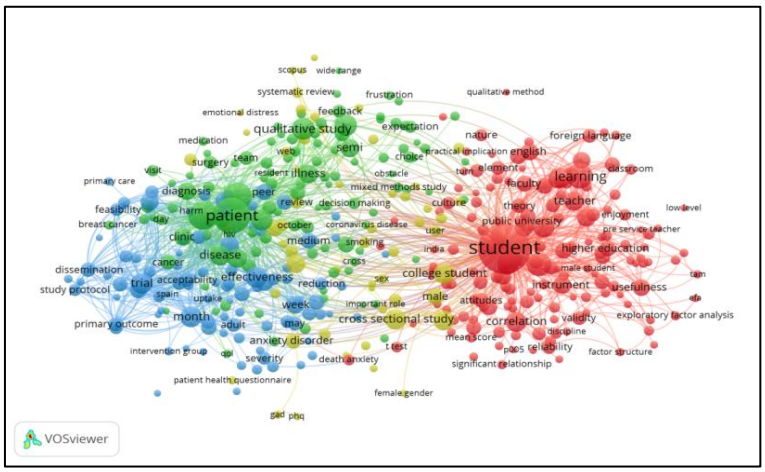


Figure 1: Bibliometric trends of publications on Research Attitude and Research Anxiety.

One of the key research approaches contributing to this domain is illustrated in Figure 1. The study employed a bibliometric search of the Scopus database using the keywords “Research Attitude” and “Research Anxiety”, covering the period from 2000 to 2026 and restricted to open-access publications. The analysis reveals that most research contributions focus on course duration, followed by study area experience and study protocols.

Furthermore, Muthuswamy and Co (2017) identified several dimensions of reseach attitude and identified key factors include interest in the project and subject matter. Chakyarkandiyil (2020) conducted a study to evaluate the perspectives of research scholars in India regarding open-access rsources and highlights the necessity of raising awareness among scholars about open access and the importance of providing training in this area. Prasad and Qasim (2021) directed a study which aims to examine the attitude towards research among research scholars in the science and arts streams and highlighting the factors influencing these attitudes, particularly concerning gender. Martin et al., (2014) adopted an online survey and revealed that scholars have a positive attitude towards writing in english articles. By adopting the theory of planned behavior Farooq and Almaas (2022) conducted a study to validate a scale for measuring attiudes towards plagiarism among and identified the importance of positive and negative attitudes, as well as subjective norms about plagiarism, in academic and research contexts. Gilloolly et al., (2021) conducted research to explore the impact of exposure to female role models on the academic self-efficacy of Ph.D. students, an important predictor of student retention rates. Bachhar and Mondal (2020) led a study to evaluate the attitudes, awareness, and barriers related to research among various barier face by the scholar, including institutional issues, funding constraints, inadequate facilities, limited research skills, supervison shortages, data collection challenges, and employment uncertainties. Maqsood et al., (2019) aimed to evaluste the research attitudes of students with the help of statistical tools. Friedrich et al., (2023) directed a study to assess the mental health of scholars and found high levels of depression and anxiety, consistent with previous research. These findings offer valuable insights for addressing mental health challenges among scholars and developing effective supporty strategies. Bazrafkan et al., (2016) aimed to investigate the stress and anxiety factors experienced using a qualitative approach with conventional content analysis, and found that the importance of purposeful supervision to alleviate stressors and recommend a thoughtful approach to coping methods for effective stress and anxiety management among medical sciences Ph.D. students. Aslam et al., (2022) interviewing ten in-service scholars and discussed potential solutions to enhance their academic performance. Rezaei and Miandashti (2013) investigated the relationship between research self-efficacy toward research and found positive and significnat relationships between age, the number of published papers, attitude toward research, and students’ reseaarch self-efficacy. Gupta (2022) asserted that research attitude and self-efficacy were identified as significant predictors of research anxiety. Saleem and Muneer (2020) aimed to evaluate the levels of perceived stress among research scholars in India using Sheldon

Cohen's Perceived Stress Scale. Mao et al., (2022) investigated the relationship between anxiety and sports participation among female scholar. And the study suggests implementing tailored sports intervention programs to alleviate anxiety among female Ph.D. candidates, addressing their specific challenges. After reviewing the relevant literature, it has been determined that no prior studies have been conducted on this topic elaborative in the study region.

Table 1: Leading Contributors to Anxiety and Attitude Study in Scholar Course

Country (*Continent*)	Articles No. (*%*)	Author's (*Year*)	Times Cited	Study Relevance	Methodology	Unique Findings
US (*N. America*)	41 (*11*)	Liu *et al*., (*2020*)	563	Clarifies the concept of caregiver burden in health research	Concept analysis using Walker & Avant framework.	Identified three defining attributes and developed a clear operational definition with measurement tools.
UK (*Europe*)	27 (*8*)	Li *et al., (2021*)	437	Assesses mental health prevalence among healthcare workers during COVID-19	Systematic review and meta-analysis.	Reported pooled global prevalence- Depression (21.7%), Anxiety (22.1%), PTSD (21.5%).
India (*Asia*)	23 (*6*)	Krishnamoorthy *et al.*, (*2020*)	425	Examines psychological morbidity across general public, healthcare workers, and COVID-19 patients	Systematic review and random-effects meta-analysis.	Found highest psychological burden among COVID-19 patients, followed by healthcare worker and general public.
China (*Asia*)	22 (*6*)	Salari *et al.,* (*2020*)	381	Focuses on mental health of frontline healthcare workers.	Systematic review, meta-analysis, and meta-regression	Stress prevalence highest (45%); sample size significantly influenced depression and anxiety rate
Iran (*Asia*)	21 (*6*)	Lakhan *et al*., (2020)	296	Early global estimates of mental health problems during COVID-19	Rapid scoping review (data-based peer-reviewed articles)	Reported very high stress prevalence (53%) in the general population
Australia (*Oceania*)	18 (*5*)	Cohen *et al*., (*2023*)	280	Evaluates effectiveness of interventions for healthcare worker well-being	Systematic literature review-quantitative and narrative synthesis	Mindfulness and organizational strategies significantly improved resilience and reduced burnout
Malaysia (*Asia*)	11 (*3*)	Finstad *et al*., (*2021*)	224	Highlights positive psychological outcomes during the pandemic	Narrative review	Identified resilience, adaptive coping, and post-traumatic growth as protective factors
Ethiopia (*Africa*)	11 (*3*)	Jörns *et al*., (*2021*)	204	Synthesizes adolescent mental health prevalence in sub-Saharan Africa	Joanna Briggs Institute (JBI) guided systematic review of observational epidemiological studies	Significant occurrence of depression, anxiety, PTSD, and suicidal behaviour in LMIC contexts
Spain (*Europe*)	10 (*3*)	Fong & Iarocci (*2021*)	155	Examines child and family mental health during pandemics	Systematic review following PRISMA guidelines	Identified quarantine-related anxiety and PTSD in children and recommend family-friendly policies
Indonesia (*Asia*)	10 (3)	Sheraton *et al.*, (*2020*)	152	Compares psychological impact on HCWs and non-HCWs	Systematic review and meta-analysis	Insomnia significantly higher in HCWs despite similar overall distress levels

Source: Scopus database

*Note 1: Data were collected from Scopus with the Keyword used as Anxiety, Research Attitude and Scholar retrieve on 12/02/2026 from 2010 to 2026.

As indicated in Table 1, one pertinent approach to understanding this research is the examination of the volume and impact of studies conducted within the region. A substantial number of studies have been carried out over the past 16 years, with citation counts reaching a peak during this period, reflecting a high level of research activity and scholarly engagement. Therefore, it can be concluded that this body of research is

validated by its relevance and its capacity to provide meaningful and impactful contributions to both ongoing and future studies.

3. Research Methodology

The present study is quantitative in nature, aiming to study the emotional determinants of research associated with gender and marital status of scholars. For this purpose, descriptive survey design was employed. A sample of 118 research scholars were selected through simple random sampling across various study discipline in the University level. Data were collected using standardized research attitude (RAS-BYKP) and research anxiety (RAS-SGGS) scales.

The collected data were analyzed using MS Excel and SPSS to get accurate result. Descriptive statistics such as mean and SD were used to determine the overall levels of research attitude and research anxiety among doctoral scholars. Independent sample t-tests and Pearson correlation analysis were conducted to examine group differences and relationships between the variables.

4. Results and Discussion

4.1. Level of Research Attitude and Research Anxiety among Ph.D. scholars.

Table 2 shows the computed mean scores and standard deviation of the research attitude and research anxiety among doctoral scholars.

Table 2. Descriptive statistics of Research Attitude and Research Anxiety among Ph.D. scholars.

Variable	N	Mean	Std. Deviation
Research Attitude	118	2.33	0.27
Research Anxiety	118	2.65	0.63

Source: Author's compilation from/ primary data

The result indicates that the mean score for research attitude is 2.33 (SD = 0.27) and research anxiety is 2.65 (SD = 0.63), signifying a moderate level of research anxiety alongside a moderately positive research attitude among the doctoral scholars. These findings suggest that while doctoral scholars generally maintain a favorable attitude toward research, they simultaneously experience emotional pressures associated with academic expectations, research deadlines, performance evaluations, and financial constraints.

4.2. Scholar's Research Attitude with respect to gender

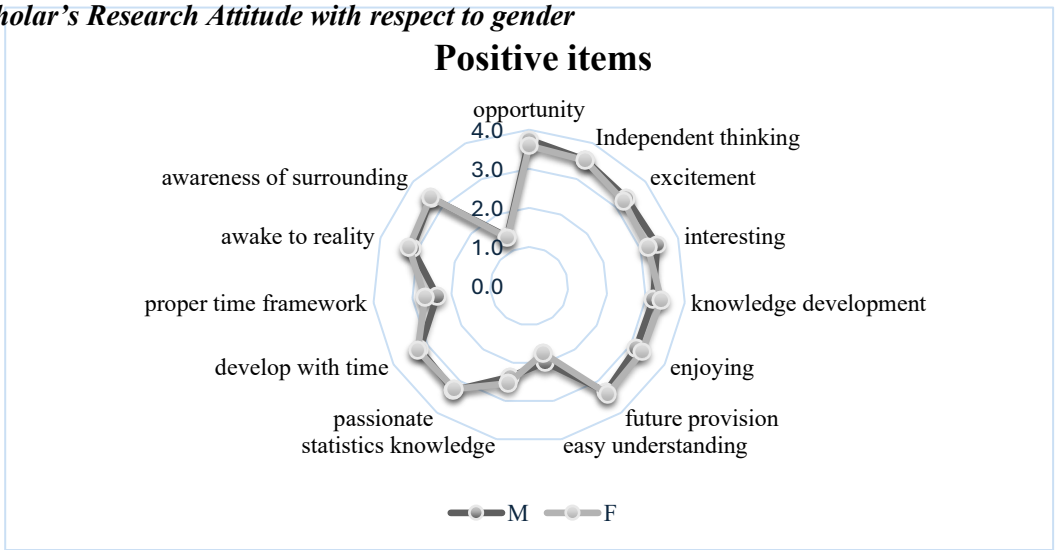


Figure 2: Radar chart depicting positive item-level responses for research Attitude by gender.

Source: Author's compilation from/ primary data

Figure 2 Illustrates the positive aspects of Research Attitude. This chart visually represents the responses of males (M) and females (F) across these positive items.

The radar chart reveals a shared cognitive landscape between male and female doctoral scholars. In particular, items related to having positive opportunities, exercising independent thinking, developing interest in research, gaining knowledge, enjoyment, perceived future benefits, and ease of understanding received relatively high mean scores for both groups. Conversely, items such as working within an appropriate time frame, being fully grounded in real-world constraints, and maintaining strong enthusiasm for statistics-related knowledge were rated lower by both groups, highlighting them as more problematic components within the research experience. Overall, the response profiles of male and female were closely aligned across most dimensions, pointing to minimal gender differences in positive perceptions of the research process in this sample.

Figure 3 visually presents how male and female scholars responded to various negative elements of research attitude.

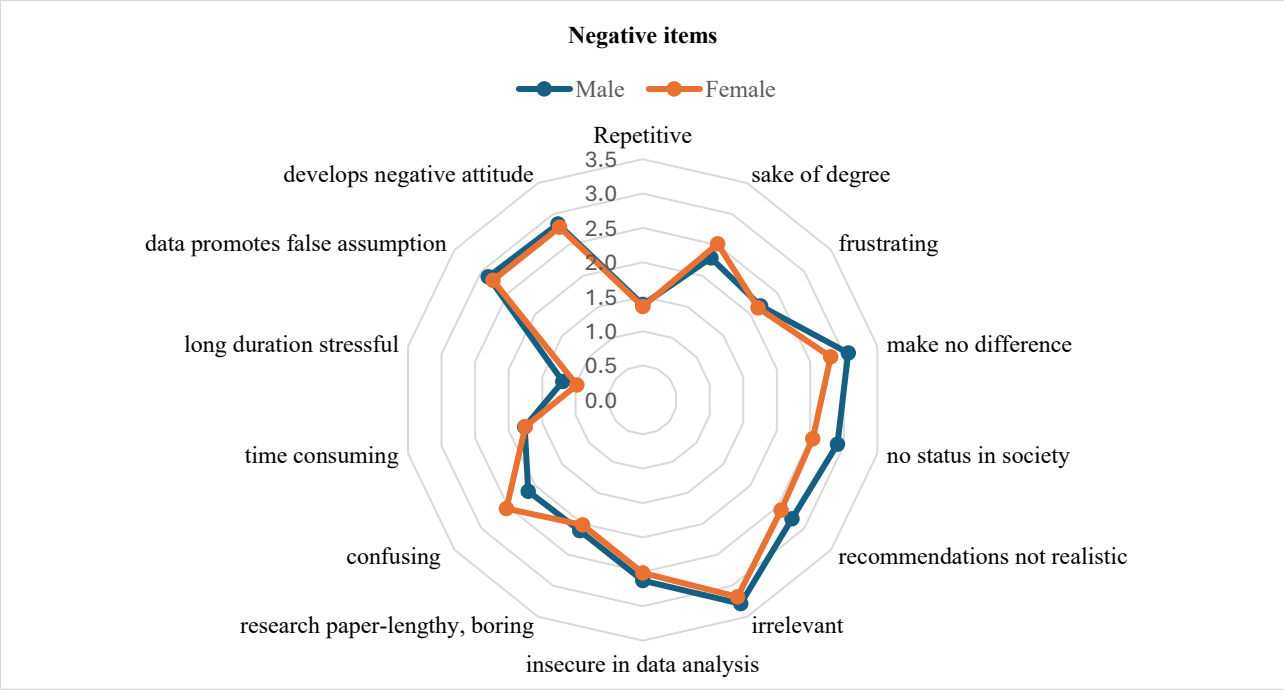


Figure 3. Radar chart depicting negative item-level responses for research attitude by gender.

Source: Author's compilation from/ primary data

The radar plot shows that both male and female scholar candidates primarily associate negative research attitudes with concerns about irrelevance, unrealistic recommendations, low societal recognition, false assumption, and limited impact of their work. Frustration and confusion appear at moderate levels, while procedural challenges such as long research duration or data misinterpretation are less strongly endorsed. The similar response patterns across genders indicate that these negative perceptions are widely shared within the cohort.

4.3. Scholars' Attitude with respect towards marital status.

Table 3 presents the mean, standard deviation, and t-value scores by marital status. The table 3 displayed that the t-value of the Overall Research Attitude of scholars is 0.776, which is lesser than the desire critical t-value (1.98) for significance at 0.05 level, representing a non-notable difference in research attitude between married and unmarried scholars. Consequently, hypothesis 1, asserting the absence of a significant difference in research attitudes among married and unmarried PhD scholars, is confirmed. This could be because of their keen interest and necessity of pursuing Ph. D.

Table 3. Research Attitude of PhD scholars with respect to marital status.

Variable	Marriage	N	Mean	Std. Deviation	p-value	t-value
Research Attitude	Yes	14	2.41	0.40	0.01	0.776*
	No	104	2.32	0.25		

Source: Author's compilation from/ primary data

**Not significant at 0.05 level*

4.4. Research Anxiety of the scholars with respect to gender.

Figure 4 depicts a detailed comparison of Research Anxiety responses between male and female Ph.D. students.

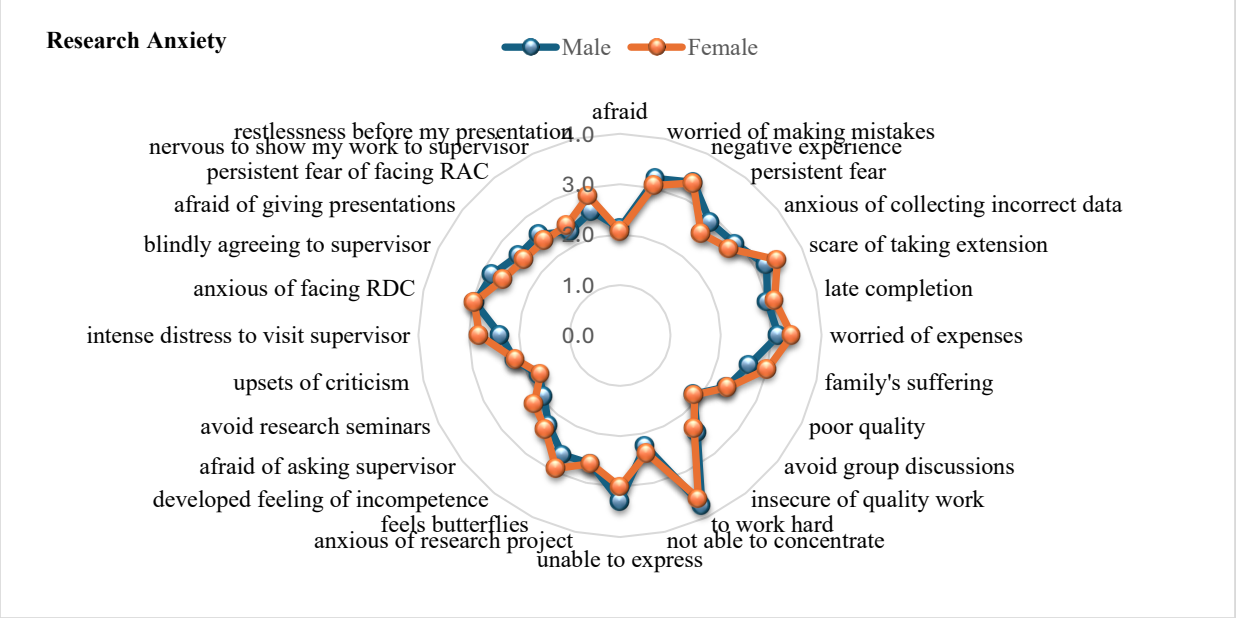


Figure 4: Spider chart showing item-level responses for research anxiety by gender.

Source: Author's compilation from/ primary data

The chart indicated that the PhD students experience moderate levels of Research Anxiety. Particularly related to fear of making mistakes, negative research experiences, late completion, financial concerns, and insecurity about the quality of their work. Anxiety also emerges in evaluative situations such as presenting research, interacting with supervisors, and facing research committees. The similar responses patterns between male and female candidates suggest that research anxiety is a common experience among doctoral students regardless of gender, mainly driven by performance pressure, uncertainty in the research process, and concerns about academic expectations. Both gender shows a peak in regard to working harder than their peers.

4.5 Research Anxiety of the scholars with respect to marital status.

Table 4 reports the mean, standard deviation, and t-test values categorised by marital status. Calculated t-value of the table 4 shows that the Overall Research Anxiety of married and unmarried PhD scholars towards research is 0.336, falling short of the required t-value (1.98) for significance at 0.05 level.

Table 4. Scholar's Research Anxiety in accordance with marital status.

Variable	Married	N	Mean	Std. Deviation	p-value	t-value
Research Anxiety	Yes	14	2.70	0.84	0.34	0.336*
	No	104	2.65	0.60		

Source: Author's compilation from/ primary data

**Not significant at 0.05 level*

This indicates that there is no significant difference in research anxiety between married and unmarried PhD scholars. Thus, the hypotheses asserting 'There is no significant difference in Research Anxiety between married and unmarried PhD scholars' is established. Thus, marital status alone may not be a significant predictor of research anxiety in this context.

4.6 Relationship between Research Attitude and Research Anxiety among the scholars

To investigate the significance of relationship between research attitude and research anxiety of research scholars, Pearson's coefficient of correlation was worked out and the value is given in the table below.

Table 5. Pearson Correlation between Research Attitude and Research Anxiety among Doctoral scholars.

Variables	Mean	Std. Deviation	N	Correlation coefficient (r)	
				1	2
Research Attitude	2.33	0.27	118	1	0.360*
Research Anxiety	2.65	0.63	118	0.360*	1

Source: Author's compilation from/ primary data

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

Table 5 revealed that the value of correlation (r) between research attitude and research anxiety of research scholars is 0.360 which is significant at 0.01 level, indicating that there is a significant moderate positive relationship between research attitude and research anxiety of Ph. D scholars. The finding suggests that scholars who are more deeply engaged and having higher research attitude may simultaneously experience higher levels of anxiety.

The present study examined the levels of research attitude and research anxiety among doctoral scholars and explored their variations with respect to gender and marital status. It also investigated the relationship between research attitude and research anxiety. The findings provide important insights into the emotional dimensions of the doctoral research process.

The descriptive results indicate that doctoral scholars demonstrate a moderately positive research attitude (M = 2.33) alongside a moderate level of research anxiety (M = 2.65). This pattern suggests that although doctoral scholars generally value research and recognize its academic importance, they simultaneously experience emotional pressures during the research process. Doctoral research involves multiple cognitive, social, and institutional demands, including publication expectations, supervisory evaluations, and time constraints, which may generate anxiety even among motivated scholars. Similar observations have been reported in earlier studies which found that doctoral researchers often maintain a positive orientation toward research while simultaneously experiencing stress related to performance expectations and academic uncertainty (Bazrafkan et al., 2016; Friedrich et al., 2023).

The item-level analysis of research attitude further indicates that scholars perceive research as an opportunity for independent thinking, knowledge development, and intellectual growth. These findings align with the

work of Muthuswamy et al. (2017), who identified intellectual curiosity and interest in scholarly inquiry as important drivers of positive research attitudes among doctoral students. Likewise, Bhagavathula et al. (2017) reported that students who perceive research as beneficial for academic and professional development tend to demonstrate stronger engagement in research activities. However, some components such as time management, practical applicability of research outcomes, and statistical understanding received comparatively lower responses, suggesting that these aspects remain challenging for many scholars. Similar barriers have been documented by Bachhar and Mondal (2020), who found that research scholars frequently encounter difficulties related to methodological skills, data analysis, and the extended duration of doctoral studies.

The study also examined research attitude with respect to marital status and found no significant difference between married and unmarried doctoral scholars. This finding suggests that marital status alone may not substantially influence scholars' perceptions toward research. Instead, factors such as intrinsic motivation, academic interest, and institutional support may play a more critical role in shaping research attitudes. This observation corresponds with the findings of Aslam et al. (2022), who reported that while doctoral scholars often face challenges in balancing personal responsibilities and academic work, marital status does not necessarily determine their commitment or outlook toward research. Similarly, Bachhar and Mondal (2020) observed that research engagement among scholars is primarily influenced by academic environment and access to research resources rather than personal demographic characteristics.

With regard to research anxiety, the study found that doctoral scholars experience moderate levels of anxiety associated with research tasks, particularly in areas such as fear of making mistakes, delays in completion, financial concerns, and evaluation by supervisors or research committees. These findings reflect the complex emotional environment of doctoral education, where scholars must navigate high expectations, uncertainty, and prolonged academic demands. Previous research has consistently highlighted that doctoral students frequently experience anxiety related to thesis progress, publication pressure, and career uncertainty (Friedrich et al., 2023; Saleem & Muneer, 2020). In addition, Bazrafkan et al. (2016) emphasized that inadequate supervision, research workload, and methodological challenges are common sources of stress among Ph.D. students.

The study further indicates no significant difference in research anxiety between married and unmarried scholars. This suggests that the psychological pressures associated with doctoral research are relatively uniform across these groups. Doctoral anxiety may be more closely linked to academic expectations, research competence, and institutional factors rather than personal demographic characteristics. Similar findings were reported by Rezaei and Miandashti (2013), who found that variables such as research self-efficacy, academic productivity, and research experience were stronger predictors of research anxiety than demographic characteristics. Likewise, Gupta (2022) observed that research anxiety among doctoral scholars is largely influenced by perceived competence and self-efficacy rather than personal background factors.

An important finding of the present study is the significant moderate positive correlation between research attitude and research anxiety ($r = 0.360$). This indicates that scholars who demonstrate stronger engagement and commitment toward research may also experience higher levels of anxiety. This relationship can be interpreted through the lens of academic motivation and performance pressure. Scholars who value research highly may set higher standards for themselves, which can increase their sensitivity to academic expectations and consequently elevate anxiety levels. A similar relationship between research engagement and anxiety has been reported by Rezaei and Miandashti (2013), who found that students with strong research involvement often experience increased pressure to meet scholarly expectations. In addition, Gupta (2022) identified research attitude as a significant predictor of research anxiety, suggesting that highly motivated scholars may simultaneously experience greater emotional investment in their work.

These findings also align with broader literature on doctoral education, which suggests that academic commitment and emotional strain often coexist within the doctoral experience. Studies on doctoral mental health have shown that strong academic engagement can increase both productivity and psychological stress due to high performance expectations and uncertain outcomes (Friedrich et al., 2023). Therefore, research

anxiety should not always be interpreted solely as a negative factor; in some contexts, it may reflect the seriousness and commitment scholars attach to their research work.

Overall, the findings highlight that doctoral scholars generally maintain a constructive outlook toward research despite experiencing moderate levels of anxiety. The coexistence of positive research attitudes and research anxiety indicates that doctoral research is both intellectually stimulating and emotionally demanding. These results emphasize the importance of supportive academic environments, effective supervision, and research training programs that can help scholars manage stress while sustaining their motivation toward research.

5. Conclusion

This study provides a comprehensive examination of research attitudes and research anxiety among Ph. D. scholars, with a particular focus on gender and marital status differences. The findings reveal significant disparities in research attitudes between male and female scholars, with males exhibiting higher levels of research attitude in certain dimensions. However, no significant differences were found in research attitudes based on marital status. Similarly, research anxiety levels were found to be comparable across gender and marital status, indicating a uniform experience of anxiety among Ph. D. scholars.

The literature review underscores the importance of various factors influencing research attitudes and anxiety, such as self-efficacy, and the availability of support systems. Recommendations from previous studies highlight the need for institutional support, adequate funding, and the creation of a conclusive research environment to lessen anxiety and foster positive research attitudes. The importance of tailored interventions, mentorship, and the inclusion of role models is also emphasized to motivate and guide Ph. D. scholars.

Overall, this study contributes to the existing body of knowledge by identifying critical areas that require attention to enhance the research experience of research scholars. Addressing the highlighted challenges through targeted interventions and supportive measures can significantly improve research productivity and well-being among scholars. Future research should continue to explore these variables in diverse contexts to develop comprehensive strategies that support Ph. D. scholars in their academic journey.

Author Contributions

Mr. Naorem was responsible for data collection, field surveys, manuscript typing, and statistical data analysis using SPSS. Dr. A. S. Sochipem Zimik served as the principal investigator, overseeing and monitoring the research study, developing the research concept, and guiding the overall research process.

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