

**Perceived Stress, Coping Mechanisms and Well-being of
Research Scholars in Thiruvananthapuram**

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CERTIFICATION OF APPROVAL

This is to certify that this dissertation entitled, “Perceived Stress, Coping Mechanisms, and Well-being of Research scholars in Thiruvananthapuram” is a record of genuine work done by **Ms. Charulatha S. Kumar**, fourth semester Master of Social Work student of this college under my supervision and guidance and that it is hereby approved for submission.

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DECLARATION

I, **Charulatha S. Kumar** do hereby declare that the Dissertation Titled “**Perceived Stress, Coping Mechanisms and Well-Being of Research Scholars in Thiruvananthapuram**” is based on the original work carried out by me and submitted to the University of Kerala during the year 2021-2023 towards partial fulfilment of the requirements for the **Master of Social Work** Degree Examination. It has not been submitted for the award of any degree, diploma, fellowship or other similar title of recognition before.

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Table of Contents

CERTIFICATION OF APPROVAL	i
DECLARATION.....	ii
ACKNOWLEDGEMENT	iii
Table of Contents	iv
ABSTRACT.....	x
Chapter One: Introduction	2
1.1 Introduction	2
1.2 Statement of the Problem	2
1.3 Background of the Study.....	4
1.3.1 Research.....	4
1.3.2 Research Scholars.....	4
1.3.3 Stress.....	5
1.3.4 Causes of Stress	5
1.3.5 Stress.....	5
1.3.6 Stressors.....	6
1.3.7 Categories of Stress	6
1.3.8 General Adaptation Syndrome.....	7
1.3.9 Coping	7
1.3.10 Coping Mechanisms	7
1.3.11 Well-being.....	8
1.4 Significance of the Study	9
1.5 Chapterisation.....	10
1.6 Summary of the Chapter	10
Chapter Two: Review of Literature	13
2.1 Introduction	13
2.2 Review of Literature.....	13

2.2.1 Stress among Research Scholars	13
2.2.2 Challenges Faced by Research Scholars	17
2.2.3 Mental Health of Research Scholars	21
2.2.4 Well-being and Coping Mechanisms among Research Scholars.....	23
2.3 Research Gap.....	28
CHAPTER THREE: METHODOLOGY	29
Chapter Three: Methodology	30
3.1 Overview of the Chapter	30
3.2 Title of the Study	30
3.3 Aim.....	30
3.4 Objectives.....	30
3.5 Hypothesis.....	30
3.6 Variables	31
3.7 Definition of Concepts	31
3.8 Research Design.....	33
3.9 Pilot Study.....	33
3.10 Universe and Unit of Study.....	33
3.11 Sample Size	34
3.12 Sampling Design	34
3.13 Inclusion Criteria.....	34
3.14 Exclusion Criteria.....	34
3.15 Data Collection.....	34
3.16 Pre-test.....	35
3.17 Data Analysis.....	35
3.18 Ethical Consideration	35
3.19 Assumptions, Limitations and Scope	35
3.20 Summary of the Chapter	36

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION.....	38
Chapter Four: Data Analysis and Interpretation	39
4.1 Overview of the Chapter	39
4.2 Socio-Demographic Profile of the Respondents	39
4.3 Perceived Stress among Respondents	47
4.4 Academic Stressors Experienced by Research Scholars	52
4.5 Personal and Social Stressors Experienced by Research Scholars	55
4.6 Coping Mechanisms of Research Scholars	57
4.7 Well-being of Research Scholars	59
4.8 Social Support on Stress Levels Among Research Scholars.....	63
4.9 Summary of the Chapter	66
Chapter Five: Findings, Suggestions and Conclusions.....	68
5.1 Overview of the Chapter	68
5.2 Summary of Major Findings	68
5.2.1 Socio-Demographic Profile of the Respondents	68
5.2.2 Perceived Stress Among Respondents.....	69
5.2.3 Academic Stressors Experienced by Research Scholars	69
5.2.4 Personal and Social Stressors Experienced by Research Scholars.....	70
5.2.5 Coping Mechanisms of Research Scholars	70
5.2.6 Well-being of Research Scholars	71
5.2.7 Social Support on Stress Levels Among Research Scholars	71
5.3 Suggestions.....	71
5.4 Implications for Social Work Practice.....	73
5.5 Conclusion.....	73
REFERENCE.....	75
ANNEXURES	83

LIST OF TABLES

Sl No.	Name of Tables	Page Number
1	4.2.1 Table showing Master's degree	41
2	4.2.2 Table showing Name of the University	42
3	4.2.3 Table showing Year of starting Ph.D.	42
4	4.2.4 Table showing Ph.D. Department	44
5	4.3.1 Table showing Correlations between age and perceived stress	47
6	4.3.2 Table showing Ph. D. Qualification criteria * Level of PSS Crosstabulation	48
7	4.3.3 Table showing Gender * Level of PSS Crosstabulation	49
8	4.3.4 Table showing Ph.D. Department * Level of PSS Crosstabulation	49
9	4.3.5 Table showing Stage of your Ph.D. * Level of PSS Crosstabulation	50
10	4.3.6 Table showing Religion * Level of PSS Crosstabulation	51
11	4.4.1 Table showing Academic stressors experienced by research scholars	52
12	4.5.1 Table showing Personal and social stressors	55
13	4.6.1 Table showing the Coping mechanisms	57
14	4.7.1 Table showing Level of Wellbeing	59
15	4.7.3 Table showing Gender * Level of Wellbeing Crosstabulation	60
16	4.7.4 Table showing Stage of your Ph.D. * Level of Wellbeing Crosstabulation	60

17	4.7.5 Table showing Nature of fellowship availing * Level of Wellbeing Crosstabulation	61
18	4.7.5 Table showing Correlation between age and well-being	62
19	4.8.2 Table showing Level of social support	63
20	4.8.3 Table showing Level of significant support	63
21	4.8.4 Table showing Level of family support	64
22	4.8.4 Table showing Level of friend's support	64
23	4.8.5 Table showing Correlations between social support and stress	65

LIST OF FIGURES

Sl No.	Name of figures	Page Number
1	Figure 4.2.1 Sex of the respondents	40
2	Figure 4.2.2 Age of the respondents	40
3	Figure 4.2.3 Ph. D. Qualification	41
4	Figure 4.2.4 Academic institution	43
5	Figure 4.2.5 Current year of PhD program	43
6	Figure 4.2.6 Stage of Ph.D.	45
7	Figure 4.2.7 Marital status	45
8	Figure 4.2.8 Religion of the respondents	46
9	Figure 4.2.9 Nature of fellowship availing	46
10	Figure 4.3.1 Level of stress of the respondents	47

ABSTRACT

In the realm of academia, research scholars play a crucial role in expanding knowledge and bringing innovation for the growth of society. Their journey involves intense study, challenges and drive for academic excellence. However, their mental health often gets overlooked due to the research, academic expectations and personal responsibilities. This study focuses on the mental health of research scholars by shedding light into their perceived stress, specific stressors, coping mechanisms, well-being and impact of social support on stress levels among research scholars. The study adopted quantitative research design. A survey tool has been used for the respective research. Research scholars specialized in the stream of social science discipline from Thiruvananthapuram are the respondents of the study. A non-probability sampling was used and the samples were collected through convenience sampling. The total number of the respondents are 62.

The study explores the perceived stress levels and it was identified moderate stress as predominant among participants. Various academic stressors, such as research proposal formulation and time management, contribute to moderate stress levels. Financial constraints and lack of funding significantly impact personal stressors. Coping mechanisms predominantly involve seeking social support from fellow scholars and setting realistic goals. Respondents' well-being demonstrates room for improvement, with age and fellowship nature influencing quality of life. Social support is generally good, but no significant relationship was found between social support and perceived stress levels.

Key words: Research Scholars, mental Health, perceived Stress, coping Mechanisms.

CHAPTER ONE: INTRODUCTION

Chapter One: Introduction

1.1 Introduction

“Stress is a state where external as well as individual demands or both surpass the individual’s adaptive capacity or do not fit into the criteria of social and tissue system” (Jose B. Ashford, 2009). Stress can arise from any source, in any circumstance, stemming from the ambiance of one's own thoughts (Keller, et al., 2012). Different people respond to stress in unique ways. At times, even a small level of stress can have significant negative impacts on someone's well-being.

“Research is a very common term for an activity that involves finding out, in a more or less organized way, things you did not know. A more scholastic interpretation is that research involves discovering things that no one else knew either” (Walliman, 2021). Research is important for the public because it helps us learn about different issues and increases what the general public knows and thinks about. Each year, a substantial researcher from India finishes and publishes their research. These researchers face various problems as they go through different stages of their research work. The types of problems they deal with depend on the specific situation, so each person tackles them in their own way. These challenges can lead to feeling stressed, and how much stress they feel depends on how good they are at solving problems. Some common issues faced by the researchers includes lack of funding for research, lack of guidance from mentors, trying to balance taking care of family and doing research, not having enough resources at their research institution. These problems really slow down the progress of research. In today's highly competitive era, there are reports indicating that the younger generation is experiencing increased levels of stress. Numerous news articles have highlighted issues such as depression, suicide attempts, and various psychological symptoms that are prevalent among young people (Nair, The Times of India., 2021).

1.2 Statement of the Problem

The study aims to understand the perceived stress, coping mechanisms, and well-being of research scholars in Thiruvananthapuram, specifically focusing on the field of Social Sciences. Research scholars go through different phases in their academic journey that involves conducting original research, navigating academic challenges, and balancing

personal and social responsibilities. Recent news articles about research scholars have highlighted the prevalence of depressive disorder.

Research conducted among Ph.D. students in two state universities located in Kerala has revealed that 70% of these scholars go through different levels of depressive disorders. Out of this group, 41.7% confront mild depression, 17.9% experience moderate depression, 6.7% deal with moderately severe depression, and 2.1% contend with severe depressive disorders (Nair, The Times of India., 2021).

These articles emphasize the need to study the well-being of research scholars. However, the well-being of research scholars in this context remains as an underexplored area. There is a significant research gap regarding the perceived stress, coping mechanism, well-being and role of social support among research scholars in Thiruvananthapuram, despite the growing need to emphasize the importance of mental health and well-being in academic settings. While existing literature provides insights into stress and coping mechanisms among research scholars in general, there is limited research specifically focused on the context of Thiruvananthapuram and the in the field of Social Sciences. Also, there is a lack of studies that comprehensively examine the specific academic, personal and social stressors faced by research scholars. To gain a deeper understanding of the challenges that research scholars encounter during their academic journey, it is crucial to identify and measure these stressors. While personal and social stressors have been acknowledged as important factors influencing well-being, there is a lack of research examining these stressors as well. Understanding the impact of personal and social factors on the well-being of research scholars is very essential for developing interventions and support systems.

In addition to it, the coping mechanisms employed by research scholars in Thiruvananthapuram to manage stress have not been explored. Exploring the range of coping mechanisms utilized by research scholars in this specific context can provide valuable insights into the effectiveness of various coping mechanisms and help inform the development of tailored support programs. By measuring all these aspects, the study aims at understanding the consequences of stress on their overall well-being and the influence of social support in reducing stress levels among research scholars in Thiruvananthapuram. Also, identifying the role of social support in alleviating stress

can provide valuable insights into the protective factors that promote well-being among research scholars and contribute to the development of effective support networks.

1.3 Background of the Study

1.3.1 Research

According to Western Sydney University “Research is defined as the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies and understandings. This could include synthesis and analysis of previous research to the extent that it leads to new and creative outcomes (University, Western Sydney, 2020).

1.3.2 Research Scholars

Research scholars are students who have engaged in an advanced academic endeavour with the goal of conducting research in a particular field of study. They are also known as doctoral candidates or graduate students. The scholars dedicate themselves to knowledge acquisition, intellectual growth, and the production of original research contributions. But there are challenges along the way for research scholars. Due to the demanding nature of their work, they are frequently exposed to a variety of stress-inducing situations that can negatively affect their general well-being. Understanding the psycho-social stress that research scholars experience, their coping strategies, and the effects that have on their wellbeing as a result are crucial. This comprehension is essential for creating a comfortable and beneficial learning environment. Research scholars who specialize in the social sciences face particular difficulties and pressures. They navigate the complexities of their field by looking into the study of social phenomena, human behaviour, and the complex functioning of society. Their work demands a solid understanding of social issues, strict implementation of critical analysis, and the use of theoretical frameworks to address complex issues. Every researcher in the social sciences faces these difficulties. They encounter a range of psycho-social stressors that can significantly impact their well-being. Within the realm of academia, research scholars face a wide range of challenges. The need to manage multiple responsibilities, strict deadlines, and the constant pressure to produce outstanding research outputs are some of these difficulties. Stress, anxiety, and self-doubt can develop among research scholars as a result of the intense competition that characterises the academic environment and the never-ending pursuit of excellence (Walden University, 2022).

A study on "Work organisation and mental health problems in PhD students" which examined the problematically high prevalence of mental health issues, particularly stress, among PhD students. The extensive study's findings revealed that PhD students often face substantially higher levels of stress than the general population, underscoring the need for proactive measures to address this pressing issue. The study identified a variety of factors, such as the students' severe workloads, continuing concerns about their job security, a lack of resources, feelings of isolation, and the continual pressure to publish their findings, that contribute to the elevated stress these students experience. These factors work together to create an environment where PhD students feel increased levels of stress, needing immediate attention and the implementation of supportive measures in order to safeguard their wellbeing and advance successful academic aspirations (Katia, et al., 2017).

1.3.3 Stress

Perceived stress refers to an individual's subjective assessment or appraisal of the level of stress they are experiencing in a given situation or period of time. It's the way people perceive and interpret the demands placed on them and their ability to cope with those demands. Perceived stress is influenced by both external stressors and internal cognitive and emotional factors (Cohen, Kamarck, & Mermelstein, 1983).

1.3.4 Causes of Stress

Many things can trigger the fight-or-flight response, which is the body's natural way of reacting to stress. When something outside, like a situation or event, sets off this reaction, the body quickly starts doing things to either deal with the problem or run away from it. Physically, when you feel stressed, it's because your body's nerves send a message to release certain chemicals from the adrenal glands. These chemicals include cortisol (a stress hormone) and epinephrine (also called adrenaline). The rush of adrenaline makes things happen in your body, like your heart beating really fast (Holloway, 2019).

1.3.5 Stress

Stress is a condition of anxiety or mental strain brought on by a challenging circumstance. Stress is a normal human reaction that forces us to face risks and obstacles in our lives. Stress affects everyone to some extent. But how we deal with stress has a significant impact on how we feel in general. Both the mind and the body

are impacted by stress. Stress may assist us carry out our everyday tasks and is beneficial in moderation. The effects of excessive stress can be felt both physically and mentally. Our mental and physical health may be supported by learning stress management techniques, which can also make us feel less overwhelmed. Our capacity to unwind is hampered by stress, which may also cause a variety of negative feelings, such as worry and irritation. Sometimes it's hard to focus while we're under stress. It's possible for us to have stomach upset, headaches, or other types of physical pain. It's possible that we don't feel hungry or that we eat more than normal. Our use of alcohol, cigarettes, and other drugs may grow under conditions of chronic stress, which can also exacerbate pre-existing health issues (World Health Organization, 2022).

1.3.6 Stressors

Stressors are defined as circumstances that put a person's capacity to adapt or stimulate their intellect and body to the test. Environmental, psychological, biological, and social variables are only a few of the many possible causes of stress. Depending on how intense it is, stress can have a beneficial or bad effect on a person. In light of the discussion that has come before, stress may be seen as a response, a trigger, and an interaction (Rana, Gulati, & Wadhwa, Stress among students: An emerging issue, 2019).

1.3.7 Categories of Stress

Stress can be categorised into three types, they are Acute stress, episodic acute stress, and chronic stress are the three main categories of stress. The symptoms, features, duration, and the treatment methods of these different forms of stress vary from each other. Acute stress is frequently transient and brought on by reactive thinking. The most typical and frequent manifestation of stress is brought on by negative thoughts that predominate current or impending situations, events, or demands. Episodic acute stress, People who regularly experience stress triggers, live chaotic, stressful lives under a lot of strain with a lot of responsibilities, and are chronically overwhelmed by acute stress overload experience episodic acute stress. The worst kind of stress, chronic stress, may have a long-lasting negative impact on one's physical and mental health if it is not handled. Often, its negative consequences on health are irreversible (Shawna Freshwater, 2019).

1.3.8 General Adaptation Syndrome

General adaptation syndrome (GAS), a stress disorder, was first described in 1936 by endocrinologist Hans Selye, who is renowned for his research on how stress affects the human body. After administering ovarian extracts to laboratory animals in an effort to identify a novel hormone, he only afterwards noticed the signs of GAS. He found that providing almost any harmful drug, inflicting physical harm, or subjecting the body to environmental stress might all have these consequences (Edwards, 2023).

Stressful circumstances can also result in or worsen mental health issues that call for access to medical care, most frequently depression and anxiety. It's possible that when we have mental health problems, it's because our stress symptoms have gotten worse and started to interfere with how we go about our everyday lives, including at work and school. The traditional definitions of stress include a stimulus, or "stressor," that individual experiences, such as a laboratory shock, loss of a job, or it can be a reaction characterised by physiological arousal and unpleasant emotions, particularly any worry (World Health Organization, 2022).

A definition of stress was given by Richard Lazarus in his 1966 publication, "Psychological Stress and the Coping Process." Stress is a link between an individual and their environment that is seen to be personally meaningful and overwhelms or outperforms the coping mechanisms. (Lazarus & Folkman, 1984).

1.3.9 Coping

According to Lazarus and Folkman, a renowned pioneer in the field of coping theory, he defined coping as the ongoing adaptation of cognitive and behavioural strategies used to successfully manage particular internal and external challenges that are thought to be overwhelming or beyond an individual's capacity for coping. These coping strategies entail proactive actions intended to manage and lessen the effects of stresses on a person's wellbeing (Juillion , 2019).

1.3.10 Coping Mechanisms

Coping mechanism refers to the psychological and behavioral strategies that individuals employ to manage, adapt to, or alleviate the challenges, stressors, and emotional distress they encounter in their lives. These mechanisms can range from conscious efforts to subconscious responses aimed at regulating emotions, reducing anxiety, and maintaining psychological well-being (Biggs, Brough, & Drummond, 2017).

A thorough framework for understanding coping processes in response to stress was given by Carver et al. in 1989. These aspects shed light on various coping mechanisms for stresses. They include active coping, in which people take initiative to reduce or get rid of the stressor. To handle or get rid of the stressor successfully, planning requires strategic thought. In order to control emotional responses, one must seek both instrumental (direction and help) and emotional (solace and aid) support. Participating in religious activities provides consolation and comfort. Perceiving stress favourably is a key component of positive reinterpretation. While accepting the stressor means admitting its influence, self-blame implies taking personal responsibility for the stressor. In expressing and accepting emotional suffering, coping techniques like venting and denial differ. Self-distraction and behavioural disengagement require focusing elsewhere or giving up on stressor-related activities. While substance misuse may be utilised as a way to lessen the effects of stress, humour is a fun way to cope. The categories developed provides a thorough grasp of coping mechanisms while reflecting the variety of people's reactions to stresses. They offer useful information for studies on stress management (Halamová, et al., 2022).

Coping techniques are crucial for helping research academics manage their stress. People utilise coping mechanisms, which are adaptive strategies, to control their stress levels, their emotional workloads, and to maintain their psychological stability. Understanding the coping strategies used by Thiruvananthapuram's research scholars is very essential for providing support as well as therapies that can increase their resilience and wellness. These coping mechanisms can be different for different individuals, such asking for assistance, engaging in leisure activities, practising mindfulness or relaxation techniques, seeking help from professionals, or forming constructive thinking patterns.

Lazarus and Folkman proposed the idea of cognitive assessment and reappraisal, highlighting the significance of thinking and giving meaning to stress. The complicated process of perception that goes into managing stress defines one's coping mechanisms within the stress cycle. The person's selected coping techniques are influenced by how they see the situation (MindTools, 2023) .

1.3.11 Well-being

Well-being refers to the state of optimal physical, mental, and emotional health and satisfaction in a person's life. It encompasses a sense of balance, contentment, and

overall positive functioning across various domains. Well-being extends beyond the absence of illness and includes aspects such as positive emotions, life satisfaction, a sense of purpose, and the ability to effectively cope with challenges. The combined effects of multiple stressors can greatly affect the general well-being of research scholars. Prolonged exposure to substantial stress over an extended time frame can lead to negative impacts on their physical health, emotional state, and academic achievements. Other than their research responsibilities, the demand to attain success can diminish their effectiveness, causing feelings of worry, hopelessness, exhaustion, and disturbances in sleep patterns. It is essential to give priority to the health and happiness of research scholars, as it has a direct impact on their personal lives and on the quality and advancement of their research undertakings. (Ed, 2014).

1.4 Significance of the Study

Thiruvananthapuram City, located in the southern part of Kerala, India, is known for its well-known colleges and research centers. These institutions attract research scholars from diverse fields for conducting innovative research. Research scholars in the field of Social Sciences play an important role in creating knowledge and contributing to the academic community. Their well-being is crucial not only for their personal growth but also for the advancement of knowledge. By studying the stress levels and coping mechanisms of the research scholars from the social sciences field, the educational institutions can implement strategies to create a more supportive environment for the researchers for improving their productivity and better research outcomes. The raising concerns regarding stress, depression and mental health issues seen among the youth are very common. Recognizing and dealing with these specific stressors the research scholars deal with is essential to enhancing their mental health and ensuring a supportive research environment. By conducting this study, it can contribute to the increasing awareness about the mental health challenges faced by research scholars and the importance of addressing these issues.

The main aim of this study is to review the perceived stress levels among Ph.D. scholars in Trivandrum City who are doing their research under the social science department, with a focus on specific stressors. By looking into these stressors, we will be able to gain an insight into the difficulties that Ph.D. scholars face and develop strategies to improve their overall well-being and academic performance. This study's findings will address the hurdles faced by the research scholars.

1.5 Chapterisation

The whole study is divided into six parts and they are as follows:

Chapter I Introduction: An introduction to the study is provided in the first chapter. The chapter gives an overview about the statement of the problem, background of the study and the relevance and significance in the present scenario.

Chapter II Review of literature: The chapter summarizes the findings from different studies based on similar themes. It also includes theoretical framework which supports the study.

Chapter III Methodology: The methodology followed in the present study is given in this chapter including the aim, objectives, universe and unit, details on data collection and analysis etc.

Chapter IV Data Analysis: The results of analysed data presented in this chapter as tables and figures. It is divided into socio-demographic details, perceived stress, personal and social stressors, coping mechanisms, well-being and social support of research scholars.

Chapter V Discussions: Detailed description of the results derived after data analysis is given in this chapter. The probable reasons for the results are also given in the chapter.

Chapter VI Findings, Suggestions and Conclusions: The chapter summarizes major findings of the study. It also put forwards suggestions, implications of social work practice and recommendations for further research. Conclusion of the whole research is also given.

1.6 Summary of the Chapter

This chapter presents a comprehensive overview of the study's background, including topics such as perceived stress, coping mechanisms, well-being and the impact of social support. The chapter clearly states the problem, highlighting the existing research gap and the need for further research in this area. The chapter emphasizes the importance of the study by discussing its potential contributions to the field and its implications for the research community in Thiruvananthapuram. It stresses the significance of understanding the extent of perceived stress among research scholars, identifying the specific stressors they encounter, and investigating effective coping strategies.

Additionally, the chapter also, highlights the importance of exploring how stress impacts overall well-being and the potential role of social support in mitigating stress. Lastly, the chapter provides a detailed outline of the research structure, giving an overview of the study's framework.

CHAPTER TWO: REVIEW OF LITERATURE

Chapter Two: Review of Literature

2.1 Introduction

The analysis of prior and current studies that are relevant to the research at hand, as well as the identification of research gaps in those earlier studies, are two key tasks that has to be undertaken while conducting as research. It aids in gaining a comprehensive understanding of the issue and raises the standard of empirical investigation. This chapter is written to establish the requirement of the current study by reviewing previous studies based on similar themes. Thematic analysis is used to conduct review of literature and different themes discussed under the review of literature include:

- Stress among Research Scholars
- Challenges faced by research scholars
- Mental Health of research scholars
- Well-being and Coping mechanisms among research scholars

2.2 Review of Literature

2.2.1 Stress among Research Scholars

A study examined the problematical high prevalence of mental health issues, particularly stress, among PhD students. The extensive study's findings revealed that PhD students often face substantially higher levels of stress than the general population, underscoring the need for proactive measures to address this pressing issue. The study identified a variety of factors, such as the students' severe workloads, continuing concerns about their job security, a lack of resources, feelings of isolation, and the continual pressure to publish their findings, that contribute to the elevated stress these students experience. These factors work together to create an environment where PhD students feel increased levels of stress, needing immediate attention and the implementation of supportive measures in order to safeguard their wellbeing and advance successful academic aspirations. (Levecque K. A., 2017)

A study focused on the Stress among students: An emerging issue, the researchers look at the different sources, signs, and negative effects of stress among the students and on their health and wellbeing. Students are very prone to face high pressure to succeed in today's competitive world, which lead to increase in their stress levels. According to Ross et al. (1999), stress is an inevitable component of human life and this can result from a variety of situations like including assignments, academic assessments,

competition in one's field, worries about money, and future employment opportunities are some factors. Stress appears as an emotional imbalance where this can affect people in both positive and negative ways. The effects of stress are influenced by its duration and the person's personality traits, intensity, how they perceive the stressor cognitively, and the social support they receive from their social networks. Stress affects people physically, mentally, emotionally, and academically. Thus, it is an alert for the parents, teachers, and counsellors to help students learn stress coping techniques so that they can have a better future and maintain good health and coping mechanisms to overcome the stress (Rana , Gulati, & Wadhwa, Stress among students: An emerging issue, 2019).

A study investigates the prevalence and sources of stress among PhD students in Sweden. The authors conducted a nationwide survey among PhD students in Sweden to examine the prevalence of stress and its impact on their mental well-being. The findings revealed that a significant proportion of PhD students in Sweden experience elevated levels of stress, with 41% of participants reporting high stress levels and 32% indicating symptoms of depression. Notably, female and international PhD students reported higher levels of stress compared to their male and Swedish counterparts. The article explores the various sources of stress experienced by PhD students, including academic pressure, time constraints, financial difficulties, and social isolation. These stressors have been linked to adverse outcomes such as anxiety, depression, and reduced academic performance. The authors propose that universities and academic institutions take proactive measures to address the stressors faced by PhD students. This entails offering mental health services, fostering supportive and inclusive environments, and acknowledging the unique stressors encountered by this particular group. The authors also advocate for further research to gain a deeper understanding of the specific mental health needs of PhD students and to identify effective interventions to address these challenges. Overall, the study titled "Stress among PhD students in Sweden: a national survey" highlights the high prevalence of stress among PhD students and underscores the significance of prioritizing the mental health and well-being of this student population. Additionally, it emphasizes the need to address the distinct stressors faced by female and international PhD students (Levecque M. F., 2017).

A study explored the relationships between three psychological factors: grit, perceived stress, and hope, among research scholars at Aligarh Muslim University in Aligarh, India. The study involved 131 Ph.D. students, including 48 males and 83 females, from

the faculties of Arts and Science. The researchers used established scales to assess the participants' levels of grit, perceived stress, and hope. They conducted various statistical analyses, such as t-tests, correlations, and regression, to investigate the connections between these variables. The findings revealed strong correlations among all three factors. Interestingly, there were no significant differences in grit and perceived stress scores between male and female students. However, there were noticeable differences in hope scores between genders. Moreover, there were no significant distinctions between research scholars from the Science and Arts faculties. Notably, the study found that both grit and hope predicted stress levels in males, whereas only hope emerged as a significant predictor of stress in females. This study's findings contribute valuable insights into the relationships between grit, perceived stress, and hope specifically among research scholars at Aligarh Muslim University (Mustafa & Jahan, 2020).

A study looked into the psychosocial approach by looking into the people by taking into consideration how their physical and mental health as well as their capacity to function are affected by psychological factors and the social environment as a whole. It covers a broad spectrum of important psychosocial issues, including violence, violence against women, substance abuse, family problems, depression, and anxiety. It's important that women are more likely to experience violence, while many men find it difficult to control their aggression towards others. According to the study the psychosocial problems are crucial especially in women, particularly during stressful times like the application process for universities, pre-Ph.D. stress, coursework anxiety, synopsis stress, presentation stress, seminar stress, and personal and family life events. These issues can appear in a variety of contexts and frequently have an adverse effect on students' mental health. Unfortunately, there haven't been many studies on psychosocial issues carried out by researchers. Thus, this study is conducted to understand and identify the psychosocial problems that are faced by the research scholars (Dhiman & Bharat, 2022).

A study focused on the academic stress of the research scholars. Stress affects research scholars in very common in professional courses such as journalism and mass, medicine engineering, communication. the high stress causes psychological problems such as cardiac problems, schizophrenia, depression paranoia, etc. Because of the large population of people who can be reached during a critical period of life, mental health among research scholars means the growing concern as well as an opportunity. Due to

their scholarly nature, department premises are also well positioned to develop, evaluate, and disseminate best practices. University offers a unique chance to address the scholars' primary public health concerns. Busy research schedules can have an adverse effect on a scholar's mental and physical health, especially if they have poor eating habits and get little sleep. This stress can build up over time. This stress may build up over time, leading to even more stress. This study examined stress levels by conducting a sample survey of Ph.D. scholars. Data was collected and analysed quantitatively, with questionnaires distributed to scholars. The findings were investigated for different stressors among students (Dhiman D. , 2022).

A study focused on the socio-psychological health issues of the doctoral students as it investigates their experiences in academic communities. The study looks into the relationship between these experiences, participation in the study, and exhaustion, self-reported stress, and anxiety levels. 669 PhD students from the University of Helsinki in Finland were participated in the research by filling out the survey. Open-ended question's responses were subjected to content analysis prior to being statistically compared to measures of well-being and study engagement. The results showed that the students' perceptions of their socio-psychological well-being in their academic communities varied widely. The scholarly community was referred to as a source of burden in more than half of those who have responded have explicitly described their experiences (n = 383), while experiences of inspiration and empowerment were also frequently referred to (44%) in the responses. These emotions were inversely correlated with stress, exhaustion, anxiety and positively correlated with study engagement. (Stubb, Lonka, & Pyhältö, 2011)

A study focused on the significant body of evidence indicating that Black doctoral students in engineering and computing fields face more stress and challenges compared to their White and Asian counterparts during their doctoral training. However, there is a lack of research that specifically explores how Black engineering and computing doctoral students and postdoctoral researchers navigate these challenges, understand the stressors they encounter, and examine the psychological, behavioural, and health impacts they experience. To bridge this research gap, we conducted interviews with 48 Black PhD students and postdoctoral researchers who were studying in engineering and computing departments. Our objective was to gain a deeper understanding of their perspectives on the stressors and difficulties they encounter in their training programs

and how they cope with them. The participants in our study included 29 men and 19 women, representing various stages of their academic journey from first-year doctoral students to recent PhD graduates. These individuals were enrolled in different institutions located in diverse time zones, with a primary focus on the eastern and central regions. It is worth noting that nine of the participants attended historically Black colleges and universities. Despite our initial expectation of distinct experiences, their accounts closely mirrored those of students at other institutions (McGee, Griffith, & Houston, 2019) .

A study emphasized on the causes of stress among PhD Research Scholars was conducted. 50 Research Scholars enrolled in the Pre-PhD scholars were surveyed. A stress questionnaire with 35 multiple choice statements made up the survey. Work overload, role ambiguity, role overload, physiological factors, and behavioural approach and avoidance strategies were the six stress-inducing factors that the researchers examined. They also examined the impact those components had on the students' performance. The researchers used multiple regression analysis, correlation analysis, Analysis of Variance, and descriptive statistics to analyse the data. According to the statistical analysis, the research scholars were under moderate amounts of stress. The researchers discovered that behavioural avoidance coping mechanisms significantly reduced stress ($P=0.013$). Conversely, physiological factors ($P = 0.002$) significantly increased stress in the research participants. (Prasad & Vaidya, 2017)

2.2.2 Challenges Faced by Research Scholars

A study assessed the stress faced by research scholars during the pandemic. Since the research scholars make a significant contribution to achieving development objectives in educational institutions, they are valuable assets to the country. But the COVID-19 pandemic has disrupted university education worldwide, including in India, forcing educational institutions to close. This has changed access and availability and had a significant impact on education. Due to the pandemic, the global research landscape in colleges has undergone significant change, with millions of research scholars switching from traditional classrooms to online ones and working from home. Due to the extended lockdowns, they have experienced both mental and physical difficulties. Research scholars are a valuable resource for the country because they Despite the fact that remote learning and research were initially unfamiliar, many researchers have demonstrated enthusiasm and frequently shared their progress. The challenges faced by

research scholars during lockdown, such as being unable to gather data or communicate with their guide, have a strong connection with the requirement to extend their research period. Government and authorities must priorities research excellence while also taking into account the welfare of research scholars in order to achieve better results. The study concludes by finding that encouraging healthy study habits can help stop unethical behaviour in the classroom (Mariyappan & Mariyammal, 2021).

A study focused on identifying solutions to current issues, the development of innovative concepts, and the adaptation of existing information for societal advancement are all components of research, which is a multifaceted, dynamic, and systematic effort. In the course of their research, scholars face a variety of difficulties, from defining their research questions to interpreting the data they have gathered. Since their institutions frequently fail to provide adequate support and resources, scholars unfortunately frequently experience additional difficulties. Therefore, the goal of this study is to look at the challenges and obstacles faced by Assam social science researchers, pinpointing the causes of these problems, and evaluate how they affect the quality of the research. Notably, this study reveals a number of challenges faced by social science researchers along the way through a thorough analysis of the qualitative data gathered (Bhowmik & Kumar, 2022).

A study focused on understanding the mental well-being of university students, who are considered a vulnerable group with increased mental health concerns. The COVID-19 pandemic has worsened these challenges for students. The main goals of the study are to explore how COVID-19 affects students psychologically, create profiles that describe the expected levels of psychological impact, and examine potential risk factors contributing to these effects. To achieve these objectives, researchers used online surveys to collect data from students at seven U.S. universities. They received 2,534 completed responses, mostly from women, non-Hispanic Whites, and graduate students. Using exploratory factor analysis, the researchers identified two main factors that categorized students into groups with high, moderate, and low levels of psychological impact. Additionally, the study investigated the connections between various sociodemographic factors, lifestyle-related variables, awareness levels, and the different levels of psychological impact experienced by students. By conducting multivariate analysis, the researchers determined how multiple risk factors simultaneously influence psychological impact. The results revealed that being female,

having fair or poor health, being in the 18 to 24 age group, spending more time on screens, and having personal connections with COVID-19 infected individuals were predictors of higher psychological impact. The study highlights the importance of recognizing and addressing the mental health challenges faced by college students, especially during crises like a pandemic. Neglecting these challenges can have long-lasting effects on students' overall well-being and educational experiences. Therefore, it is crucial to implement measures that support students' mental health and provide the necessary resources to ensure their success and well-being despite these difficult circumstances (Browning, et al., 2021).

A study focused on the COVID-19 epidemic in India, which caused an initial statewide lockdown and university shutdown, this paper examines' s effects on Jawaharlal Nehru University (JNU) research scholars (PhD and MPhil). This study makes one of the first quantitative analyses of how the pandemic affects the research work, financial situation, and mental health of researchers in India between March and June 2020 by using an online survey using a quantitative descriptive methodology. The survey sample consisted of 530 research academics, and the findings provided insight into the difficult situation these researchers found themselves in during the first four months of the epidemic, especially in light of the pre-existing socioeconomic disparities in higher education. Due to the considerable travel interruptions, unstable access to energy, and internet connectivity challenges that the majority of scholars encountered during this time, research activities came to a complete standstill. Furthermore, the financial difficulties already experienced by researchers were made worse by the tardy fellowship payout. According to the poll, over 90% of academics cited a variety of worries, including stopped fieldwork, doubts about the future of their research programme, and financial challenges. These data show how severely the pandemic affected research academics at JNU, highlighting the urgent need for support and attention to overcome the difficulties they experienced (R, Roy, & Das, 2022).

A study assessed the difficulties that doctoral candidates experience while pursuing their Ph.D. degrees. It also explores the connection between their well-being and the extent to which they engage in their studies. The research discussed here is part of a larger project that aims to investigate doctoral education. The data analysed includes responses from 669 doctoral students enrolled in the Faculties of Arts, Medicine, and Behavioural Sciences. The results of the study reveal that doctoral students face various

challenges in different aspects of their studies, such as general working processes, specialized knowledge, supervision, the academic community, and available resources. Moreover, the findings suggest a clear link between the well-being of doctoral students and their level of engagement in their studies. These outcomes emphasize the importance of implementing more effective strategies to support doctoral students in overcoming the obstacles they encounter throughout their Ph.D. journey (Pyhälä, Toom, Stubb, & Lonka, 2012).

A study investigated the obstacles and hindrances faced by PhD students. With a focus on the peer relationships, role of supervisors, and personal aspects in relation to their scholar's performance. The study is been carried out by using a descriptive research design. The study uses a convenience sampling technique to conduct the survey among PhD students at Aligarh Muslim University (AMU). The study has evaluated the overall performance of PhD students and identified the factors that's hindering scholars during their academic progress. The result shows that the roles of supervisors, personal factors, and peer relationships have a significant impact on the overall performance of PhD students, and also the elements like financial hardships, frequent assessment, unfavourable conditions, strained relationships among coworkers, and excessive workload can cause in poor performance and can cause researchers to experience high levels of stress during their academic journey. Researchers also faces additional difficulties because they've frequently found it difficult to present themselves professionally in their field. Thus, this study suggests that addressing these types of issues may help PhD students perform better and feel and perform better in their academics (Parveen, 2022).

A study emphasized COVID-19 pandemic, which had widespread effects on different aspects of life, including education and public health. Graduate students have been particularly impacted by measures like curfews and quarantines, which have taken a toll on their mental well-being and contributed to academic burnout. To understand the mental health challenges faced by graduate students during the pandemic, this study examined factors associated with burnout syndrome. The research involved 519 participants pursuing master's and Ph.D./DLA degrees from universities in Hungary and other European countries. Burnout syndrome was assessed using the Copenhagen burnout inventory student version. The findings showed that good sleep quality, high levels of support from the university, and satisfaction with the university's response to

the pandemic were associated with lower levels of burnout. Conversely, excessive alcohol consumption, antidepressant use, being single, and thoughts of dropping out were found to be predictors of burnout. These results contribute to the growing body of evidence on the impact of the COVID-19 pandemic on mental health and provide insights into the factors that can contribute to academic burnout among graduate students pursuing master's and doctoral degrees (Andrade, Ribeiro, & Máté, 2023).

A study assessed how the global COVID-19 pandemic has disrupted various sectors, including education. Universities have had to suspend their regular academic activities and switch to online courses for undergraduate and graduate students. However, PhD students in the fields of biochemistry and molecular biology still need to conduct laboratory experiments. Despite these challenging circumstances, it is important to understand that the academic journey of master's or PhD students should not be halted. Instead, they should consider this difficult period as a chance to expand their knowledge and skills in their specific areas of study. By making the most of this time, they can transform the COVID-19 crisis into an opportunity for personal and academic development (Aydemir & Ulusu, 2020).

2.2.3 Mental Health of Research Scholars

A study explored the prevalence and impact of mental health issues among graduate students. The authors conducted a thorough examination of existing literature to gain insight into the impact of mental health issues on graduate students' academic and personal lives. They discovered that graduate students face higher rates of mental health problems compared to the general population, including anxiety, depression, and stress. The authors also identified specific stressors unique to graduate students, such as academic pressure, financial stress, and social isolation, which contribute to the development of mental health issues. The article emphasizes how mental health problems can negatively affect graduate students' academic performance, productivity, and overall well-being, as well as their relationships and quality of life. To address these concerns, the authors recommend that universities and academic institutions proactively provide mental health services, foster a supportive and inclusive environment, and address the specific stressors faced by graduate students. They also highlight the importance of further research to better understand graduate students' mental health needs and develop effective interventions. In conclusion, the study

underscores the significance of prioritizing the mental health and well-being of graduate students and taking appropriate measures to support them (Turley, , 2013).

A study critically reviewed the body of literature that already exists on researchers' mental health. Information on the frequency of particular mental health conditions among academics is scarce. In the literature, postgraduate students and academic staff in university settings are largely discussed in relation to their experiences with work-related stress. According to survey results, the majority of university employees report feeling stressed out at work. Higher than the average working population, university personnel experience levels of burnout that are equivalent to those in "high-risk" professions like those in healthcare. According to self-reported data, postgraduate students and university personnel are more likely than other professional categories to experience mental health issues. More than 40% of graduate students report having significant levels of stress, depressive symptoms, or both. Academics who have more professional autonomy, participate in decision-making, have supportive managers, and have more time devoted to research report higher levels of job satisfaction. Additionally connected to lower levels of stress are opportunities for professional advancement. Compared to workers in other industries, higher education (HE) and research employees in the UK report lower levels of wellbeing, particularly in jobs that can increase stress. The data that is currently available does not provide strong evidence for the efficacy of therapies that are especially aimed at the mental health of researchers. The literature discusses only a limited number of interventions, and even fewer have undergone rigorous evaluation (Guthrie, et al., 2018).

A study focused on the early stages of doctoral study present an ideal opportunity for early intervention and prevention strategies, as concerns about the mental health and well-being of doctoral students grow. Understanding the current knowledge about mental health and wellbeing among doctoral students in the beginning stages is essential for developing effective strategies. With regard to early-stage doctoral students' mental health and wellbeing, the goal of this review was to compile existing research. 26 studies that matched the eligibility requirements were found after extensive manual and electronic database searches. Limited data on the prevalence of problems with mental health and well-being and the effects of the switch to doctoral study were found after these studies' findings were combined. However, the synthesis shed light on aspects of early-stage doctoral students' mental health and wellbeing. A single

intervention that focuses on this population's mental health and wellbeing was also found. In order to reach more firm conclusions about the mental health and wellbeing of early-stage doctoral students, the review highlights the need for more high-quality research (Jackman, Jacobs, Hawkins, & Sisson, 2022).

A study investigated the experiences of work-related psychosocial stressors, psychological distress, and mental health diagnoses among mental health researchers. This international cross-sectional study included 207 participants, including postgraduate students and staff members at research institutes or university settings. The Copenhagen Psychosocial Questionnaire III (COPSOQ III) was used to quantify workplace psychosocial stressors, and the Depression-Anxiety-Stress Scale-21 (DASS-21) was used to measure psychological distress. A modification of the Patient Health Questionnaire-9 (PHQ-9) was used to assess suicidal thoughts, and a unique questionnaire was created to evaluate mental health diagnoses. According to the findings, compared to previous career stages, support staff reported the lowest levels of "work demands" and "work-life balance." Severe psychological anguish was experienced by 13.4% of all respondents, more frequently among students. 23.7% of participants who replied to questions about suicide ideation and mental health diagnoses said they had had suicidal thoughts at some point in their academic career, while 54% said they had had a mental health diagnosis at some point in their lifetime. Even after accounting for important variables, there was still a substantial correlation between psychological distress and work-related psychosocial stressors. The findings highlight the need for future research targeting modifiable stressors in order to improve the mental health and well-being of mental health researchers, particularly focusing on work organization, job content, and work-life balance (Hill, et al., 2022).

2.2.4 Well-being and Coping Mechanisms among Research Scholars

A study revealed that, PhD students who are studying in their home countries are in more stressed than undergraduate and master's students. for the students who are studying abroad have greater difficulties. According to the Educational and Life Transitions Model, international research scholars experience a lot of changes as they adjust to a new educational environment and new social structure. They may also undergo experience stressors like linguistic discrimination, barriers, and tensions in interacting with their research supervisors as well. Thus, PhD students studying outside of their home countries or other regions may be more susceptible to suffering from poor

mental health condition. According to the Stress and Coping Model and Berry's Acculturation Strategies Model, coping mechanisms and acculturation strategies are very crucial to their wellbeing. Due to the growing numbers, the effects of various elements on the wellbeing of mainland Chinese PhD students in Hong Kong, including stress, coping mechanisms, acculturation, and individual differences are not much addressed. By using mixed-methods approach the researcher gain a clear understanding of the students' academic and acculturation experiences. This study aimed to close this research gap. The study conveys that the acculturative and academic stressors were linked to depressive symptoms, growth from stress, and quality of life. The effects of positive reframing and specific acculturation techniques were associated with improved well-being outcomes in research scholars. The research shows how crucial it is to deal with stressors, encourage healthy coping mechanisms, support academic and cultural adjustments to improve the wellbeing of Chinese PhD students in Hong Kong (Jing, 2021)

A study focused on investigating the difficulties graduate students have with their mental health. The authors look into how common mental health problems are among graduate students and emphasise the pressing need for assistance and intervention. The research investigates graduate students' experiences from diverse universities and specialties. It goes into the issues behind the mental health problem, such as the imbalance between work and personal life, intense competition, isolation, and high academic standards. The researchers want to give a thorough grasp of the mental health issues experienced by graduate students by analysing survey data and personal experiences. The research aims to increase public understanding of the critical issues with graduate education's mental health. They promote the adoption of institutional policies and assistance programmes that put graduate students' welfare first. The study emphasises the need of identifying and attending to graduate students' mental health concerns in order to provide a more beneficial and inclusive academic environment (Byrom, Dinu, Kirkman, & Hughes, 2020).

A study focused on the importance for determining academics' general wellbeing and career success. It is essential to investigate well-being promotion strategies while pursuing a PhD because it has been discovered that well-being directly affects employee productivity and effectiveness. In addition to improving the educational outcomes, these techniques are essential to help the doctoral students lead to a balanced

life. The methodologies used in these studies includes theoretical models and conceptual frameworks of the research scholar's wellbeing. And the study suggests that adopting a student-centric approach is to be address for identifying the need of doctoral students and enhance their well-being. This approach aims to improve the well-being and productivity of academics in the long run, recognizing the interconnectedness between the well-being of doctoral students and the broader academic community (Schmidt & Hansson, 2018).

A study described the creation of an assessment that assesses the wellbeing of PhD researchers using a clinically approved methodology that centres the creation of the assessment around the perceptions and experiences of the subject population. It identifies and evaluates and study the scope and relative importance of seven different dimensions that have been shown to have a negative impact on student researchers' perceptions of their well-being at all stages of their academic careers. The findings indicate that the needs of doctoral students in terms of development, facilities, home and health, research, social, supervisor and university, are all important. The test showed that the instrument had good internal reliability and content validity. Its application provides fresh perspectives on the struggles faced by early-career researchers and could help guide efforts to improve support for them. This may then highly impact rates and interest of career choices of this research populations (Juniper , Walsh, Richardson, & Morley, 2012).

A study examined how perceived belongingness and imposter syndrome affect the well-being of doctoral students, specifically their levels of depression, stress, and illness symptoms. Previous studies have indicated a negative relationship between perceived belongingness and imposter syndrome, with imposter syndrome contributing to higher psychological distress. However, no studies have directly explored the role of imposter syndrome in mediating the relationship between perceived belongingness and well-being. To address this gap, two studies were conducted using different research designs. The findings supported the hypothesis that perceived belongingness has a negative impact on imposter syndrome, which in turn leads to higher levels of depression, stress, and illness symptoms. These findings provide insights into the development and consequences of imposter syndrome among doctoral students, highlighting the importance of addressing social belongingness within doctoral programs. Recommendations for practitioners include fostering integration into scholarly

communities, providing information about imposter syndrome, and incorporating discussions on well-being in professional development seminars. This study contributes to our understanding of the doctoral experience and offers valuable insights for improving the well-being of doctoral students. (Sverdlik, Hall, & McAlpine, PhD Imposter Syndrome: Exploring Antecedents, Consequences, and Implications for Doctoral Well-Being, 2020)

A study used instruments that measure constructs related to well-being, most frequently psychological distress, whereas other aspects of well-being are neglected, to measure well-being among PhD students. In order to identify and assess the quality of instruments used to measure the well-being of PhD students, this review followed a systematic methodology to look into how well-being is conceptualised in the relevant literature. 19 articles were found through the search strategy to be included. The majority of studies measured well-being-related constructs, primarily symptoms of mental illness or constructs related to subjective well-being and the self-determination theory. Only a few studies evaluated various aspects of psychological health. A PhD questionnaire validation rate was also low. Additionally, only a small number of questionnaires have been verified for this population, and many measures didn't have information on their validity or reliability. And the study suggests that future research should employ high-quality metrics to evaluate understudied factors and offer a thorough evaluation of well-being in this student group (Scott & Takarangi, 2019).

A study suggested that female doctoral students struggle to maintain their wellbeing as the proportion of women earning doctorates rises. These difficulties of doctoral students include resolving conflicts arising from playing several roles, maintaining social support and creating efficient coping strategies. The purpose of this study is to provide information about the stress levels, academic success, and personal fulfilment of women in order to illuminate various facets of their wellbeing. A semi-structured interviews were conducted with eight doctoral students from a university that place a high priority for research. The perceptions of wellbeing among the research scholars were recorded using metaphorical analysis. The results show that female doctoral students think of wellbeing as an ongoing, individual process that is specific to every woman (Haynes , et al., 2012).

A study explored how doctorate students, domestic and foreign, negotiate and deal with emotions of isolation and loneliness during the course of their PhD programmes. The researchers gathered information using a netnographic technique that highlighted the considerable frequency of loneliness among doctorate students. The study's findings show that participants use a range of coping mechanisms, such as having both offline and online social connections, participating in professional development activities, and taking breaks from the rigours of their PhD studies. The report discusses potential directions for future research and offers helpful suggestions that institutions might implement to decrease PhD students' sense of isolation and lower dropout rates. By focusing light on this significant facet of PhD student wellbeing, the study advances knowledge of the difficulties they face and provides suggestions for successfully addressing and assisting their coping techniques (Janta, Lugosi, & Brown, 2014).

A study focused on the experiences of undergraduate students and has overlooked important aspects that are relevant to doctoral students, such as their mental, physical, motivational, and social well-being. Previous studies consistently show that doctoral students face challenges related to their mental and physical health, and many of them leave their programs before completion. However, we still lack a comprehensive understanding of the experiences of doctoral students. This literature review aims to address this gap by critically examining recent studies on the doctoral experience. After reviewing 163 empirical articles, we identified external factors like supervision, personal and social lives, departmental support, and financial opportunities, as well as internal factors like motivation, writing skills, self-regulatory strategies, and academic identity. The review highlights concerns such as declining well-being during the doctoral journey, financial difficulties, and difficulties in balancing social life and family responsibilities. By shedding light on these issues, this paper seeks to contribute to discussions on doctoral education and emphasize the importance of both academic success and the well-being of students. It is recommended that future research explore the interrelationships among these factors and utilize diverse research methods to gain deeper insights. Furthermore, it is important to investigate interventions and programs aimed at improving the personal and professional lives of doctoral students (Sverdlik, Hall, McAlpine, & Hubbard, *The PhD experience: A review of the factors influencing doctoral students' completion, achievement, and well-being.*, 2018) .

2.3 Research Gap

The existing literature reviews majorly discuss about stress, coping mechanisms and mental health among the research scholars, graduate students, and research scholars. All these studies highlight the high levels of stress that academic researchers during their PhD journey. Time restraints, Academic pressures, financial constraints and the pressure to publish paper are the issues that are some of the identified stressors. This emphasize is placed on the damaging effects of stress on the mental health and general wellbeing of research scholars. In order to promote a positive and productive research environment, it is essential to measure and evaluate the well-being of research scholars specifically in Thiruvananthapuram, taking into account the potential effects of stress. The literature reviews additionally address the coping mechanisms employed by researchers, like as seeking help of friends and family during difficult times and taking part in social activities for enhancing their quality of life during their academic journey. For implementing interventions and support systems that effectively help research scholars manage stress and cope up to their research related stress, it is essential to understand the coping mechanisms they use. This study focus on researchers in the particular context of Thiruvananthapuram, the significance of conducting this research in Thiruvananthapuram lies in understanding the specific context and difficulties faced by research scholars from social science discipline in this location. Numerous studies focus on the significance of social support in reducing stress levels among research scholars, emphasising how they experience stress, coping mechanisms, and well-being can be influenced. But the above-mentioned literature reviews don't pay enough attention to the perceived stress, coping mechanisms, or wellbeing of research scholars from social sciences discipline in Thiruvananthapuram. As a result, the primary goal of this research study is to close this knowledge gap. This study focuses specifically on research scholars in social science discipline from Thiruvananthapuram as opposed to the more general geographic contexts (like Sweden, the United States, India, and Hong Kong) that were covered in the literature reviews. By restricting the geographical area and concentrating on only social science discipline, this study seeks to understand the perceived stress, specific stressors like personal, social and academic stressors, coping mechanisms, and wellbeing of research scholars in Thiruvananthapuram.

CHAPTER THREE: METHODOLOGY

Chapter Three: Methodology

3.1 Overview of the Chapter

A well-structured and comprehensive research methodology plays a vital role in any research endeavour. This chapter, provide an elaborate account of the methodology employed in this study. This includes a thorough explanation of the sample selection process, the chosen research design, the methods and tools utilized for data collection, and the statistical techniques employed for data analysis. By outlining these methodological aspects, study ensure the rigor and reliability and thereby enhancing its validity and credibility.

3.2 Title of the Study

Perceived stress, Coping mechanisms, and Well-being of Research scholars in Thiruvananthapuram.

3.3 Aim

To study Perceived stress, coping mechanisms, and Well-being of Research scholars in Thiruvananthapuram specialized in social science discipline.

3.4 Objectives

General objective

- To understand the Perceived stress, Coping mechanisms, and Well-being of Research scholars in Thiruvananthapuram

Specific objective

- To assess the level of perceived stress experienced by research scholars in Social Sciences discipline.
- To measure the academic stressors experienced by research scholars.
- To measure the personal and social stressors experienced by research scholars.
- To understand the coping mechanisms of research scholars to manage stress.
- To assess the impact of stress on the well-being of research scholars.
- To assess the impact of social support on stress levels among research scholars.

3.5 Hypothesis

H1: There is a relationship between age and perceived stress.

H2: There is a significance between age and well-being among the respondents.

H3- There is a significant relationship between age social support and stress

3.6 Variables

Independent Variables

- Age
- Gender
- Academic stressor
- Personal stressor
- Social stressor

Dependent Variables

- Perceived stress of research scholars
- Well-being of research scholars
- Social support of research scholars

3.7 Definition of Concepts

Theoretical Definition

Stress:

Selye (1956) defines stress as “any external event or any internal drive which threaten to upset the organism equilibrium is stress”

Stressor:

A stressor is defined as any event, condition, or stimulus that triggers a stress response in an individual. It can be an external factor, such as a demanding task, an unexpected event, or an environmental factor, as well as an internal factor, such as personal thoughts or emotions. Stressors can vary in their intensity and duration and can have different effects on individuals. (Lazarus & Folkman, 1984).

Perceived stress:

Perceived stress is the feelings or thoughts that an individual has about how much stress they are under at a given point in time or over a given time period. (Anna C. Phillips 2013)

Coping mechanisms:

Coping mechanisms involve an individual's efforts to modify the internal or external demands of a stressful situation, as well as their appraisal and interpretation of the stressor itself (Lazarus & Folkman, 1984).

Well-being:

Well-being refers to a multidimensional construct that encompasses individuals' overall state of physical, psychological, and social health and satisfaction with their life. It involves a positive and holistic appraisal of one's own functioning, encompassing aspects such as positive emotions, life satisfaction, self-acceptance, autonomy, positive relationships, and a sense of purpose and meaning in life (Diener, Suh, Lucas, & Smith, 1999; Ryff, 1989).

Social support:

Social support is a broad construct comprising both the social structure of an individual's life and the specific functions served by various interpersonal relationships. Structural aspects of support are often measured by assessing social integration, indicating the extent to which an individual is a part of social networks. (Robert G. Kent de Grey)

Operational Definition

Stress:

Stress is a feeling of overwhelmed, pressured, or experiencing mental and emotional strain due to workload, academic pressure and other factors with research scholar responsibilities.

Stressor:

Stressors are the factors contributing to the stress experienced by research scholars, including academic stressors, personal and social stressors, coping mechanisms, academic stressors, impact on well-being.

Perceived stress:

The self-reported level of stress experienced by research scholars in relation to their academic, personal, and social aspects.

The scale assessing the frequency and intensity of stressful experiences, perceived control over stressful situations, and the overall perceived stress level (Cohen, Kamarck, & Mermelstein, 1983).

Coping mechanisms:

Coping strategies employed by research scholars in Thiruvananthapuram to manage stress related to their Ph.D. studies.

Wellbeing:

Overall psychological and social functioning experienced by research scholars in Thiruvananthapuram.

Social support:

Social support refers to the perceived availability of emotional assistance from family, friends and peers that may buffer the impact of stress on research scholars' well-being.

3.8 Research Design

The study follows quantitative method. Survey design has been used for the respective research. The purpose of using Survey design is based on the nature of research being carried out which is focusing on a large number of respondents at a point of time. Hence survey design will help to collect data from a large number of respondents within a short period.

3.9 Pilot Study

The researcher carried out a pilot study involving research scholars at various stages in Thiruvananthapuram. Through this study, the researcher gained insight into the feasibility of the research. Insights from the preliminary study were used to make suitable refinements to improve the data collection tool's efficiency.

3.10 Universe and Unit of Study

Universe: All Research scholars specialized in social sciences discipline in Thiruvananthapuram becomes the population of the present study.

Unit: Individual Research scholar in the respective district of Thiruvananthapuram is the unit of study

3.11 Sample Size

62 research scholars of Thiruvananthapuram district.

3.12 Sampling Design

Study used non-probability sampling for the research. In which samples were collected through convenience sampling.

3.13 Inclusion Criteria

- Research scholars from social science discipline are only included.
- Research scholars from Thiruvananthapuram districts are only selected.
- Both male and female research scholars are included.

3.14 Exclusion Criteria

- Research scholars other than from social science discipline are excluded.
- Research scholars from districts other than Thiruvananthapuram are excluded.

3.15 Data Collection

The data was collected from both primary and secondary sources. Primary data was collected from research scholars of social sciences discipline in Thiruvananthapuram district and Secondary data was collected from articles, journals, books and websites. The socio-demographic details and details about perceived stress, specific stressors, coping mechanisms, well – being and perceived social support was collected using standardized scales and self-prepared questionnaire. To measure the perceived stress, perceived stress scale was used to understand the stress they experience due to its reliability and validity. For measuring the specific stressors like academic, personal and social stressors self-structured questionnaire was used. WHO5 Wellbeing Index scale is used in research scholars to assess their overall well-being and mental health. It provides a reliable and validated measurement of well-being, capturing both positive and negative aspects of psychological well-being. The Perceived Social Support Scale is used in research scholars to measure the subjective perception of available social support systems. It helps measure the extent to which individuals feel supported and valued by their social networks, including family, friends, and colleagues. Data was collected using google forms.

3.16 Pre-test

Researcher conducted a pre-test among sample of 10 respondents who are currently pursuing their PhD in the field of social science. Based on the feedback and responses collected from the pre-test participants, the researcher made necessary modifications to the tool for conducting the study. By conducting the pre-test and incorporating the valuable insights gained from the participants, the researcher increased the reliability and validity of the tool, making it more suitable for the target population of social science research scholars in Thiruvananthapuram.

3.17 Data Analysis

The data was analysed using descriptive statistics to find out the frequencies, spearman Coefficient was used to measure the relationship among the variables. The data analysis carried out using statistical package of social sciences (SPSS) 22 version.

3.18 Ethical Consideration

- The data is collected after obtaining informed consent from the participants.
- The participants were informed about their right to withdraw from the study.
- The confidentiality of information and the participant details to be maintained by the
- researcher.
- The researcher has not resorted to any unlawful means/ plagiarism to present data.
- The data collected will be used for only academic purposes.

3.19 Assumptions, Limitations and Scope

Assumptions

- Researcher assumes that the respondents would have genuinely responded to the questionnaire.
- Researches assume that since the data was collected on anonymous basis the respondents would have given genuine response.

Limitations

- The research was conducted in a small period of time, due to which the sample size was limited.

- The sample size of 62 research scholars from Thiruvananthapuram district is relatively small, which could limit the generalizability of the results to a larger population.
- The study was focused on Thiruvananthapuram district of Kerala due to time constraints.
- The findings of the study will be limited to the population of research scholars specializing in social sciences in Thiruvananthapuram and is not applicable to research scholars in other disciplines or locations.
- Convenience sampling was used for the study which may introduce bias and limit the representativeness of the sample.
- As the self-structured questions was used to measure the specific stressors and coping mechanism, the reliability of the questions will be questionable.

Scope

- Studies can be undertaken among research scholars from different discipline. This can enhance the generalizability and the findings and provide a broader understanding of the experiences of research scholars in Thiruvananthapuram.
- Qualitative studies can be undertaken to understand about different stressors experienced by the research scholars during their academic journey.
- Qualitative or mixed method studies can be undertaken on the same topic.
- Further studies by comparing stress levels, coping mechanisms, and well-being across different disciplines can provide insight into the variation of stress and discipline-specific challenges.

3.20 Summary of the Chapter

The methodology chapter described about the way in which the research is conducted. It included the aim of the study and objectives of the study. The objectives of the study include measuring the perceived stress, academic, personal and social stressors understanding coping mechanisms, assessing the impact of stress on well-being and evaluating the impact of social support on stress levels among the research scholars in Thiruvananthapuram district. It also explained the hypothesis framed for studying the objectives framed. It also described the method and design followed in the study and the inclusion and exclusion criteria of the study. The way in which data was collected and analysed and the tools and functions used to collect and analyses data was also

mentioned in the chapter. The chapter also included scope, assumptions and limitations with regard to the study undertaken. In overall this methodology chapter provide an overview of research process conducted by the researcher from the aim and objective of the study to the data collection, analysis and limitations involved. This chapter helps to understand how the study was conducted and how the research questions are addressed according to the objective of the study.

**CHAPTER FOUR: DATA ANALYSIS AND
INTERPRETATION**

Chapter Four: Data Analysis and Interpretation

4.1 Overview of the Chapter

The data analysis chapter presents the results of analysis done using the data collected from respondents. The data analysed using descriptive statistics will be used to examine the frequencies of different variables and provide a summary of the data. This will help in assessing the level of stress experienced by the research scholars in social sciences discipline and the associations between stress levels, coping mechanisms and well-being among the research scholars. The data are derived and presented in diagrams and tables. These visual representations will help to understand the results and make it easier to understand, interpret and discuss them in the subsequent chapters.

The chapter is divided into the following sections:

- Demographic profile of respondents which includes personal and academic details of the respondents
- Perceived stress among research scholars.
- Academic stressors of research scholars
- Personal and social stressors of research scholars
- Coping mechanisms of research scholars
- Well-being of research scholars
- Social support of research scholars

4.2 Socio-Demographic Profile of the Respondents

The demographic profile of the respondents includes gender, age, master's degree, Ph.D. qualification, name of the university, year of starting Ph.D., academic institution, current year of Ph.D., Ph.D. department, stage of Ph.D., marital status, religion, and nature of fellowship availing.

Figure 4.2.1

Figure showing Sex of the respondents

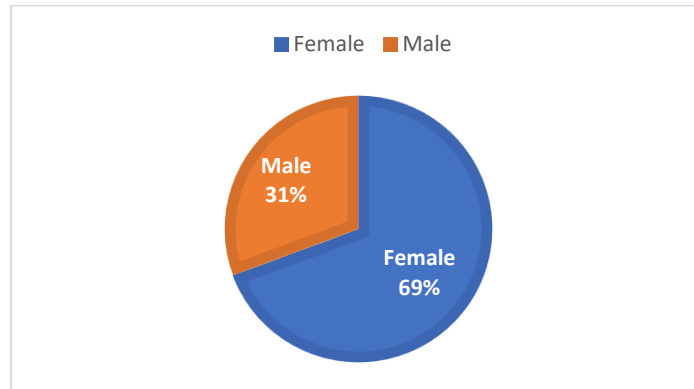


Figure 4.2.1 shows the sex of the respondents. Among the total respondents, a significant (69%) percentage of respondents are female and less than one-third (31%) of respondents are male. This outcome suggests that the majority of the respondents pursuing PhD are females.

Figure 4.2.2

Figure showing the Age of the respondents

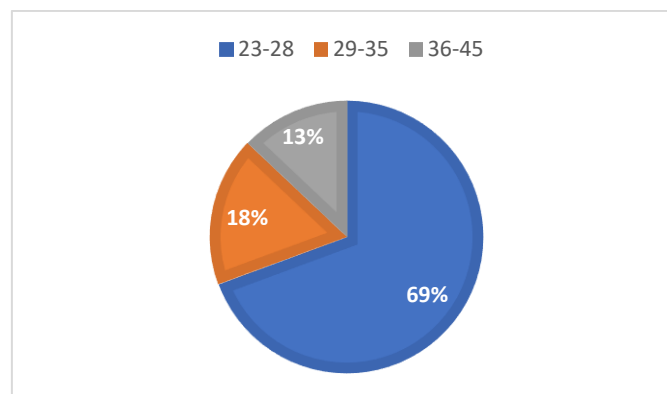


Figure 4.2.2 shows the age of the respondents, among the total respondents the largest age group of respondents are between the age 23-28, comprising 69% of the total. Between the age 29-35 comprises of 18% of the respondents, while the age group of 36-45 represented 13%. This suggests that respondents between the age 23-28 are more likely to pursue PhD in social sciences.

Table 4.2.1

Table showing Master's degree

Variables	Frequency	Percent
M.A	45	72.6
M.Sc.	12	19.4
M.Com	3	4.8
MBA	1	1.6
MSW	1	1.6
Total	62	100

Table 4.2.1 reveals that, among the total respondents 72.6% of respondents hold an M.A. degree, making it the most common qualification, 72% of the respondents are having M.Sc., 19% have an M. Com degree while both MBA and MSW degrees have 2% each. This suggests respondents with a strong foundation in social sciences may be more inclined to pursue a PhD.

Figure 4.2.3

Figure showing Ph. D. Qualification

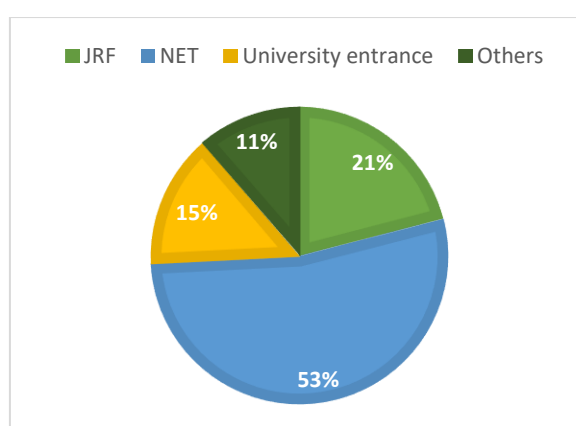


Fig 4.2.3 shows, among the total respondents 21% of the respondents hold a JRF, while 53% of the respondents have NET qualifications. Additionally, 14% of the participants gained admission to the university through entrance exams, and 11% had other

qualification. This outcome suggests that, the research scholars in Thiruvananthapuram

Table 4.2.2

Table showing Name of the University

Variables	Frequency	Percent
University of Kerala	62	100%

exhibit diverse qualifications and backgrounds.

Table 4.2.2 reveals that all the participants in the study are affiliated with the University of Kerala.

Table 4.2.3

Table showing Year of starting Ph.D.

Variables	Frequency	Percent
2015 - 2017	1	1.6 %
2018 - 2020	18	29.0%
2021 - 2023	43	69.4%
Total	62	100%

Table 4.2.3 reveals that, among the total respondents 1% of the respondents have started their PhD between the year 2015-2017, 29% of respondents started doing their PhD between the year 2018-2022 and 69% of respondents are between the year 2021-2023. This suggests there are respondents who are doing PhD for more than 5 years.

Figure 4.2.4

Figure showing Academic institution

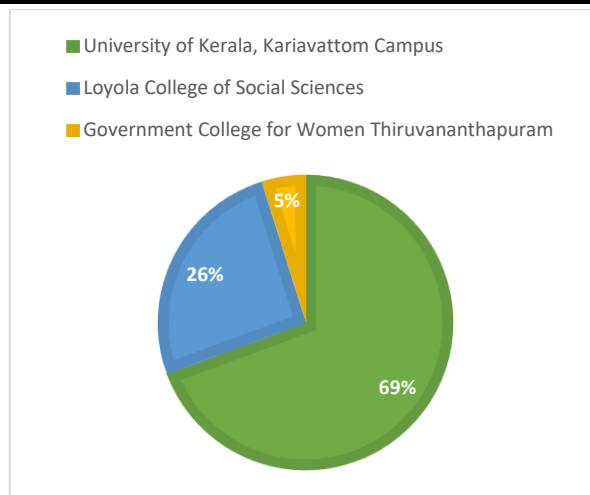


Figure 4.2.4 shows that 69% of the respondents are from the University of Kerala, Kariavattom Campus, 26% of the respondents are from Loyola College of Social Sciences and the least respondents are from Government College for Women Thiruvananthapuram which is 5%. This outcome suggests that, majority of the respondents are from University of Kerala, Kariavattom Campus.

Figure 4.2.5

Figure showing Current year of PhD program

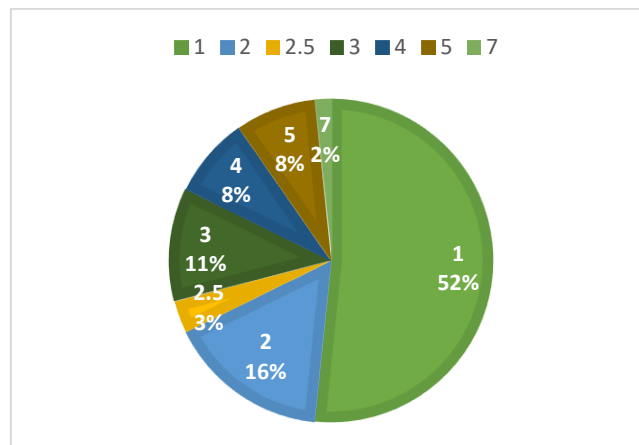


Fig 4.2.5 shows that 52% of the respondents are from 1st year, 16% are from 2nd year, 3% of respondents are from 2.5 years, 11% are from 3rd year, 8% are from 4th year, 8% are from 5th year and the least respondents are from 7th year which is 2%. These outcomes suggest that, there is a diverse distribution of research scholars from different stages of their PhD program.

Table 4.2.4*Table showing Ph.D. Department*

Variables	Frequency	Percent
Social work	8	12.9 %
Sociology	27	43.5 %
Political science	11	17.7 %
Management	1	1.6 %
Economics	6	9.7 %
Philosophy	3	4.8 %
Archaeology	3	4.8 %
History	1	1.6 %
Islamic studies	1	1.6 %
Law	1	1.6 %
Total	62	100 %

Table 4 shows the PhD departments of the respondents, among the total respondents 13% of the respondents are from the social work department,43.5% are from sociology,18% are from political science,2% are from management,9.7% from economics,5% from philosophy,5% from archeology,2% from history,2% from Islamic studies,2% from the law. This outcome suggests the distribution of wide range of academic disciplines among respondents.

Figure 4.2.6*Figure showing Stage of Ph.D.*

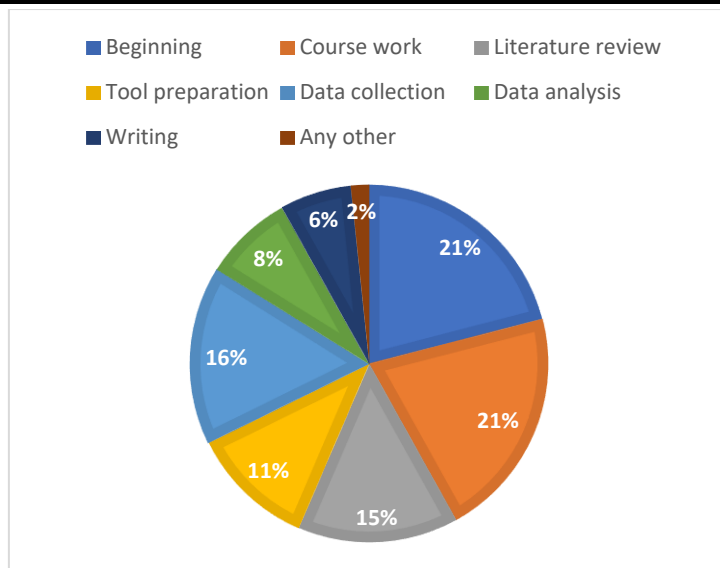


Figure 4.2.6 shows the stage of Ph.D. in which the respondents are currently in. 21% of respondents are in their beginning stage, 21% are doing course work, 15% are doing a literature review, 11% are doing tool presentation, 16% are doing data collection, 8% are doing data analysis, 6% are in the writing stage, and the least respondents 2% are in further stages. This outcome provides an overview of the stage at which research scholars are currently engaged in their Ph.D. process.

Figure 4.2.7

figure showing Marital status

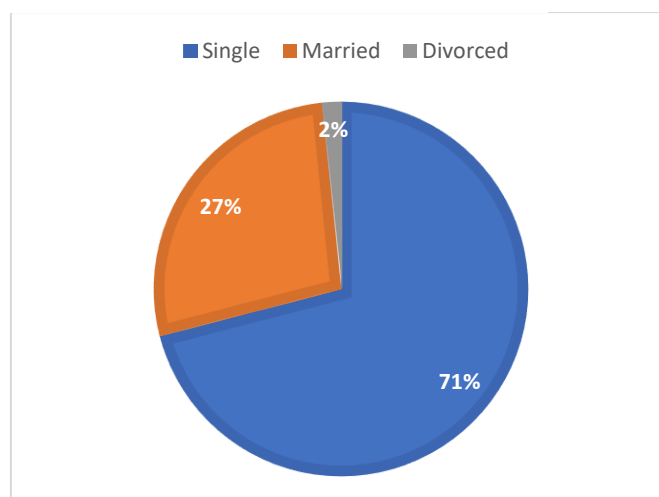


Figure 4.2.7 shows the marital status of the respondents, 71% of the respondents are single, 27% are married, and the least respondents 2% are divorced. This outcome suggests the marital status composition of research scholars.

Figure 4.2.8

figure showing Religion of the respondents

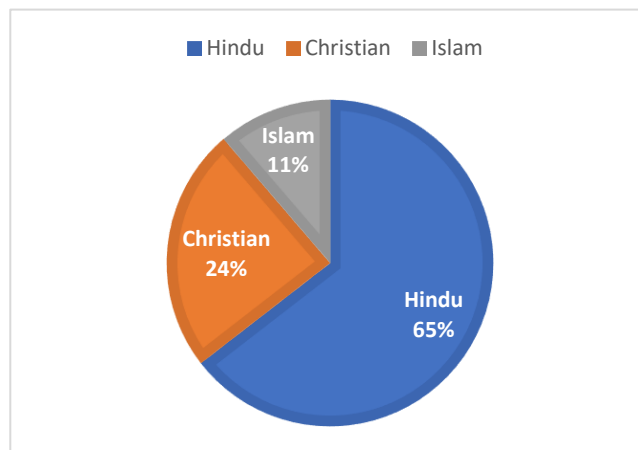


Figure 4.2.8 shows the religion of respondents, 65% are Hindu, 24% are Christian, and 11% are Islamic. This outcome suggests the diverse religious composition among the respondents.

Figure 4.2.9

Figure showing Nature of fellowship availing

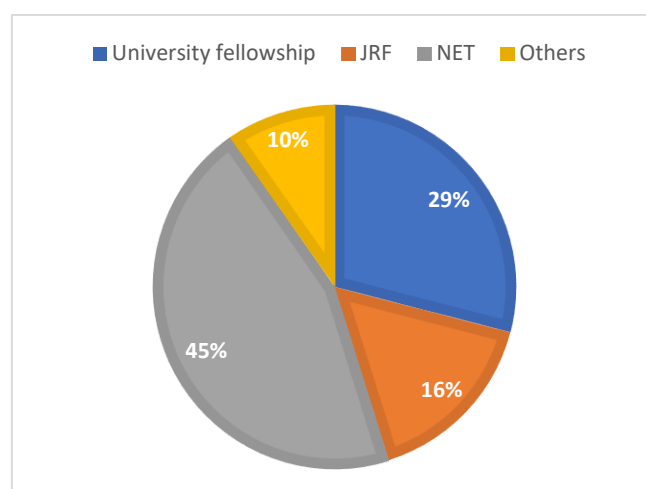


Figure 4.2.9 shows the nature of fellowship the respondents are availing, among the total respondents 45% of the respondents are availing NET,29% are getting university fellowship,16% are getting JRF and 10% are getting other fellowships. This outcome suggests a diverse range of funding sources for the research scholars.

4.3 Perceived Stress among Respondents

Figure 4.3.1

Figure showing Level of stress of the respondents

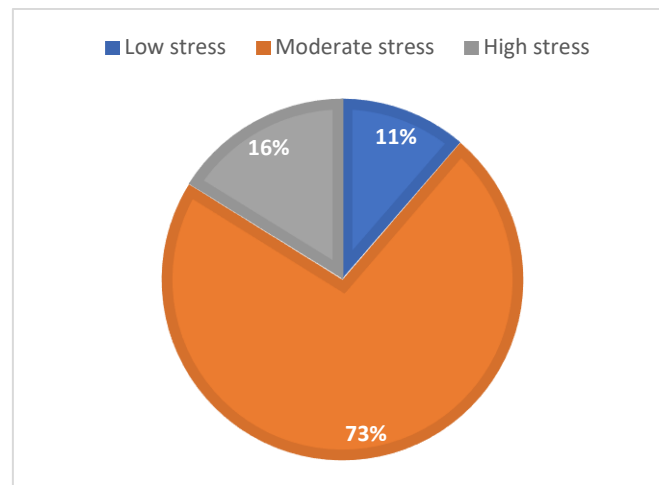


Figure 4.3.1 shows the perceived stress among the respondents. Among the total respondents, very minimum (11%) respondents are having only low stress, less than three fourth (73%) respondents are undergoing moderate stress and very few (16%) respondents are having high stress.

Table 4.3.1

Table showing Correlations between age and perceived stress

Variables	Age	Sum of PSS
Age	Pearson	
	Correlation	1
	Sig. (2-tailed)	-.313*
	N	.013
		62
		62

Sum of Pearson			
PSS	Correlation	-0.313*	1
	Sig. (2-tailed)	.013	
	N	62	62

*. Correlation is significant at the 0.05 level (2-tailed).

The Pearson correlation analysis revealed a significant relationship between age and perceived stress, with a p-value of 0.013 (<0.05), indicating rejection of the null hypothesis. The correlation coefficient, i.e., $R = -0.313$ suggests a negative correlation. This implies that as age increases, perceived stress tends to decrease and vice versa. Since, the study used non-probability sampling method, a non-parametric test was conducted to examine the significance of the relationship between age and perceived stress and the results revealed that there is no significant association between age and perceived stress.

H1: There is no significant relationship between age and perceived stress

Table 4.3.2

*Table showing Ph. D. Qualification criteria * Level of PSS Crosstabulation*

Variables	Level of PSS			Total
	Low stress	Moderate stress	High stress	
Ph.D.				
Qualification JRF	23.1%	61.5%	15.4%	100.0%
NET	12.1%	72.7%	15.2%	100.0%
University entrance	0.0%	66.7%	33.3%	100.0%
Others	0.0%	100.0%	0.0%	100.0%
Total	11.3%	72.6%	16.1 %	100%

Table 4.3.2 reveals the relationship between Ph.D. Qualification criteria of respondents and perceived stress. All the respondents in the study, who have qualified for Ph.D. through JRF, NET and university entrance experience moderate level of perceived stress.

Table 4.3.3

*Table showing Gender * Level of PSS Crosstabulation*

Variables	Level of PSS			Total
	Low stress	Moderate stress	High stress	
Gender				
Female	11.6%	69.8%	18.6%	100.0%
Male	10.5%	78.9%	10.5%	100.0%
Total	11.3%	72.6%	16.1%	100.0%

Table 4.3.3 reveals the relationship between gender and perceived stress, among the total respondents, significant percentage (69.8%) of female respondents experience moderate stress, very few (18.6%) experiences high stress and very minimum (11.6%) experience low stress.

In males more than three fourth (78.9%) of male respondents also experience moderate stress. Very few (10.5%) respondents experience low and high stress. This indicates that, among the total respondents the majority of the female respondents experience moderate level of stress.

Table 4.3.4

*Table showing Ph.D. Department * Level of PSS Crosstabulation*

Variables	Level of PSS			Total
	Low stress	Moderate stress	High stress	

Ph.D.	Social work	42.9%	6.7%	20.0%	12.9%
Departmen t	Sociology	42.9%	51.1%	10.0%	43.5%
	Political science	0.0%	15.6%	40.0%	17.7%
	Management	0.0%	2.2%	0.0%	1.6%
	Economics	0.0%	8.9%	20.0%	9.7%
	Philosophy	0.0%	6.7%	0.0%	4.8%
	Archaeology	14.3%	2.2%	10.0%	4.8%
	History	0.0%	2.2%	0.0%	1.6%
	Islamic studies	0.0%	2.2%	0.0%	1.6%
	Law	0.0%	2.2%	0.0%	1.6%
	Total		100.0%	100.0%	100.0%

Table 4.3.4 reveals the relationship between Ph.D. department and perceived stress. Among the total respondents, more than one third of the respondents in political science experience high stress (40%), more the half (51.1%), of the respondents in sociology experience moderate stress, less than half (42.9%) of the respondents experience low stress who are specialized in both social work and sociology. This outcome indicates that, the field of study may contribute to variations in stress levels.

Table 4.3.5

*Table showing Stage of your Ph.D. * Level of PSS Crosstabulation*

Variables	Level of PSS	Total
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		Moderate		
		Low stress	stress	High stress
Stage of your	Beginning			
Ph.D.		14.3%	22.2%	20.0%
	Course work	0.0%	20.0%	40.0%
	Literature			
	review	28.6%	15.6%	0.0%
	Tool			
	preparation	0.0%	13.3%	10.0%
	Data			
	collection	28.6%	15.6%	10.0%
	Data			
	analysis	14.3%	6.7%	10.0%
	Writing	14.3%	4.4%	10.0%
	Any other	0.0%	2.2%	0.0%
Total		100.0%	100.0%	100.0%

Table 4.3.5 reveals the relationship between PhD stage and perceived stress. Among the total respondents, more than one third (40%) of the respondents doing course work experience high stress. Less than one fourth (22%) of the respondents experience moderate stress at the beginning stage. However, more than one fourth (28.6%) of the respondents in the literature review and data collection stage experience low stress. This outcome indicates that, the course work stage can be challenging and demanding for the research scholars. Also, the progress from coursework to the literature review and data collection stage, there is a noticeable decrease in stress levels.

Table 4.3.6

*Table showing Religion * Level of PSS Crosstabulation*

Variables	Level of PSS			
	Low stress	Moderate stress	High stress	Total
Religio Hindu				
n	42.9%	66.7%	70.0%	64.5%
Christia				
n	57.1%	22.2%	10.0%	24.2%
Islam				
	0.0%	11.1%	20.0%	11.3%
Total	100.0%	100.0%	100.0%	100.0%

Table 4.3.6 reveals the relationship between religion and perceived stress. Among the total respondent's significant percentage respondent (70%) of Hindus experience high stress. More than half (57.1%) of respondents from Christian background experience low stress.

4.4 Academic Stressors Experienced by Research Scholars

Table 4.4.1

Table showing Academic stressors experienced by research scholars

Academic stress	Frequency	Percentage
Course work	Very low stress	8 12.9
	Low stress	13 21.0
	Moderate stress	23 37.1
	High stress	11 17.7
	Very high stress	7 11.3
Total	62	100.0
Formulating research proposal	Very low stress	6 9.7
	Low stress	11 17.7
	Moderate stress	22 35.5

	High stress	17	27.4
	Very high stress	6	9.7
<hr/>		Total	62
<hr/>			100.0
Time management	Very low stress	1	1.6
	Low stress	5	8.1
	Moderate stress	28	45.2
	High stress	19	30.6
	Very high stress	9	14.5
<hr/>		Total	62
<hr/>			100.0
Presenting research paper at the conference	Very low stress	3	4.8
	Low stress	12	19.4
	Moderate stress	23	37.1
	High stress	17	27.4
	Very high stress	7	11.3
<hr/>		Total	62
<hr/>			100.0
Publishing research papers	Very low stress	3	4.8
	Low stress	4	6.5
	Moderate stress	22	35.5
	High stress	16	25.8
	Very high stress	17	27.4
<hr/>		Total	62
<hr/>			100.0
Fear of failures	Very low stress	7	11.3
	Low stress	13	21.0
	Moderate stress	19	30.6
	High stress	12	19.4
	Very high stress	11	17.7
<hr/>		Total	62
<hr/>			100.0

Struggling with understanding concepts and theories	Very low stress	5	8.1
	Low stress	18	29.0
	Moderate stress	13	21.0
	High stress	15	24.2
	Very high stress	11	17.7
Total		62	100.0
Level of pressure to meet academic standards and committee expectations	Very low stress	3	4.8
	Low stress	10	16.1
	Moderate stress	18	29.0
	High stress	20	32.3
	Very high stress	11	17.7
Total		62	100.0

Table 4.4.1 reveals the specific academic stressors of the research scholars. Among the total respondents who are doing course work, more than one third (37.1%) of respondents have moderate stress and less than one fourth (21%) of the respondents have low stress. While formulating research proposal, one third (35.5%) of the respondents experience moderate stress and more than one fourth (27.4%) have high stress. Less than half of the respondents (45.2%) experience moderate stress in time management and less than one third (30.6%) of the respondent experience high stress. While presenting research paper at the conference more than one third (37.1%) experience moderate stress and more than one fourth (27.4%) high stress. One third (35.5%) of the respondents experience moderate stress and more than one fourth (25.8%) of the respondent experience high stress in publishing research papers. Less than one fourth (30.6%) respondents have moderate stress in fear of failure and less than one fourth (21%) of the respondents have low stress. Less than one fourth (24.2%) of respondents experience high stress in understanding the concepts and theories and 21% respondents experience moderate stress. Less than one third (32.3%) have high

stress to meet academic standards and committee expectation and more than one fourth (29%) have moderate stress. This outcome indicates that, majority of the respondents experience moderate and high stress levels throughout the various stages of their academic journey. Stages such as coursework, research proposal formulation, time management, presenting research papers, publishing papers, fear of failure, and meeting academic standards and committee expectations contribute to the overall stress experienced by the scholars.

4.5 Personal and Social Stressors Experienced by Research Scholars

Table 4.5.1

Table showing Personal and social stressors

Personal and social stressors		Frequency	Percentage
How would you rate the level of stress you experience due to financial constraints and lack of funding?	Very low stress	1	1.6
	Low stress	5	8.1
	Moderate stress	16	25.8
	High stress	31	50.0
	Very high stress	9	14.5
Total		62	100.0
How well supported do you feel by your supervisor in your academic journey?	Rarely	3	4.8
	Occasionally	8	12.9
	Sometimes	9	14.5
	Frequently	24	38.7
	Almost always	18	29.0
Total		62	100.0
Do you feel a lack of Social support during Your PhD. program	Rarely	14	22.6
	Occasionally	14	22.6
	Sometimes	21	33.9
	Frequently	10	16.1

	Almost always	3	4.8
	Total	62	100.0
To what extent do you experience do you self-doubt related to your abilities as research scholars?	Rarely	16	25.8
	Occasionally	4	6.5
	Sometimes	20	32.3
	Frequently	14	22.6
	Almost always	8	12.9
	Total	62	100.0
How would you rate the level of stress caused by health issues during you PhD Program?	Very low stress	8	12.9
	Low stress	14	22.6
	Moderate stress	18	29.0
	High stress	18	29.0
	Very high stress	4	6.5
	Total	62	100.0
How well do you cope with criticism of your of your academic work?	Very well	9	14.5
	Well	11	17.7
	Moderately well	26	41.9
	Poorly	6	9.7
	Very poorly	10	16.1
	Total	62	100.0
How would you rate the level of support you receive from your peer in managing academic stress?	Very low support	1	1.6
	Low support	8	12.9
	Moderate support	25	40.3
	High support	22	35.5
	Very high support	6	9.7
	Total	62	100.0

		Total	62	100.0
Do you feel uncertain about future career prospect after completing your PhD?	Not significant uncertainty	5	8.1	
	Mild uncertainty	8	12.9	
	Moderate uncertainty	13	21.0	
	High uncertainty	16	25.8	
	Very high uncertainty	20	32.3	
Total		62	100.0	

Table 4.5.1 reveals the personal and social stressors of the research scholars. Among the total respondents, half (50%) of respondents experience high stress, while more than one fourth (25.8%) of respondents experience moderate stress due to financial constraints. More than one third (38.7%) of the respondents frequently feels supported by their supervisor during their academic journey and more than one fourth (29%) of the respondents almost always feel supported. Among the total respondents, less than half (33.9%) have felt lack of social support at times during their academic journey and less than one fourth (22.6%) have felt lack of support rarely and occasionally. Less than one third (32.3%) have self-doubt related to the ability as research scholar. More than one fourth (29%) of the respondents have moderate to high stress due health issues and less than half (41.9%) of the respondents cope moderately well with criticism related to academic work. Additionally, more than one third (40.3%) receive moderate support and 35.5% receive high support from peer in managing academic stress. Less than one third (32.3%) feel very uncertain about their career after completing their PhD program.

4.6 Coping Mechanisms of Research Scholars

Table 4.6.1

Table showing the Coping mechanisms

Coping mechanisms		Frequency	Percent
Do you seek social support from fellow PhD scholars to cope with	Yes	47	75.8

Stress related to your PhD.

studies?	No	15	24.2
	Total	62	100

Do you occasionally seek professional help as a coping mechanism for stress related to your PhD studies?

Yes	21	33.9
No	41	66.1

Total	62	100.0
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Is taking breaks and dedicating time for self-care rated as not effective as a coping mechanism for stress related to your Ph.D. studies?

Yes	30	48.4
-----	----	------

No	32	51.6
----	----	------

Total	62	100.0
-------	----	-------

Do you rarely set realistic goals and expectations to cope with stress related to your Ph.D. studies?

Yes	41	66.1
-----	----	------

No	21	33.9
----	----	------

Total	62	100.0
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Do you occasionally seek guidance from mentors as a coping mechanism for stress related to your Ph.D. studies?

Yes	30	48.4
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No	32	51.6
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Total	62	100.0
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Is the overall effectiveness of the coping mechanisms you use to deal with stress related to your Ph.D. studies rated as not effective?	Yes	27	43.5
	No	35	56.5
Total		62	100.0

Table 4.6.1 reveals the coping mechanisms of the research scholars. Among the total respondents, more than three fourths (75.8%) seek social support from fellow PhD scholars to cope with stress related to their academics. more than one third (33.9%) of respondents seek professional help as a coping mechanism for stress related to their studies. Less than half (48.4%) responded that taking breaks and dedicating time for self-care rated as an effective coping mechanism for stress. While, 51.6% responded as not effective. More than half (51.6%) of respondents rate dedicating time for self-care as rated as ineffective and 48% responded as effective. Significant (66.1%) of respondents sets realistic goals and expectations to cope with stress. Less than half (48.4%) of the respondents occasionally seek guidance from mentors as a coping mechanism for stress. For less than half (43.5%) of the respondents, the overall effectiveness of the coping mechanisms is rated as effective. This outcome indicates that, research scholars seek social support from their peers rather than relying on professional or mentor to help to cope with stress.

4.7 Well-being of Research Scholars

Table 4.7.1

Table showing Level of Wellbeing

Variables	Frequency	Percent
Worst Possible Quality of Life	32	51.6
Best possible quality of life	30	48.4
Total	62	100.0

Table 4.7.1 reveals the level of well-being among the respondents. Among the total respondents, more than half (51.6%) of the respondents have the worst possible quality

of life and less than half (48.4%) of respondents also have the best possible quality of life. This suggests relatively a positive well-being status among the respondents.

Table 4.7.2

*Table showing Gender * Level of Wellbeing Crosstabulation*

		Level of Wellbeing		
		Worst Possible Quality of Life	Best possible quality of life	Total
Gender	Female	78.1%	60.0%	69.4%
	Male	21.9%	40.0%	30.6%
Total		100.0%	100.0%	100.0%

Table 4.7.2 reveals the relationship between gender and level of wellbeing. Among the total respondents, more than three fourth (78%) of the female respondents have the worst possible quality of life and more than half (60%) have the best possible quality of life. In male respondents more than one third (40%) of respondents have the best possible quality of life and less than one fourth (21.9%) have worst possible quality of life. This outcome indicates the gender-based differences in the well-being levels of the research scholars.

Table 4.7.3

*Table showing Stage of your Ph.D. * Level of Wellbeing Crosstabulation*

Variables		Level of Wellbeing		
		Worst Possible Quality of Life	Best possible quality of life	Total
Stage of your Ph.D.	Beginning	25.0%	16.7%	21.0%
	Course work	21.9%	20.0%	21.0%

Literature review	9.4%	20.0%	14.5%
Tool preparation	9.4%	13.3%	11.3%
Data collection	12.5%	20.0%	16.1%
Data analysis	12.5%	3.3%	8.1%
Writing	6.3%	6.7%	6.5%
Any other	3.1%	0.0%	1.6%
Total	100.0%	100.0%	100.0%

Table 4.7.3 reveals the relationship between stage of PhD and level of well-being. Among the total respondents, one fourth (25%) of respondents during their beginning stage experience the worst possible quality of life. Less than one fourth (21.9%) during course work stage have worst possible quality of life. Less than one fourth (20%) of the respondents in literature review and data collection experience the best possible quality of life. During tool preparation very few (13.3%) have the best possible quality of life. The outcome indicates the variations in the level of well-being experienced during the different stages of their PhD.

Table 4.7.4

*Table showing Nature of fellowship availing * Level of Wellbeing Crosstabulation*

		Level of Wellbeing		Total
		Worst Possible Quality of Life	Best possible quality of life	
Nature of fellowship availing	University fellowship	25.0%	33.3%	29.0%
	JRF	25.0%	6.7%	16.1%

NET	43.8%	46.7%	45.2%
Others	6.3%	13.3%	9.7%
Total	100.0%	100.0%	100.0%

Table 4.7.4 reveals the relationship between nature of fellowship availing and level of well-being. Among the total respondents less than half (43.9% and 46.7%) of the respondents availing NET fellowship have both worst quality of life as well as best quality of life. Hence, the outcome indicates that, there is no relationship between the fellowship availing and well-being.

Table 4.7.5

Table showing Correlation between age and well-being

Variable		Sum of Wellbeing	Age
Spearman's rho	Sum of Wellbeing	1.000	.260*
	Correlation Coefficient	.	.041
	Sig. (2-tailed)	62	62
	N		
Recoded age	Correlation Coefficient	.260*	1.000
	Sig. (2-tailed)	.041	.
	N	62	62

*. Correlation is significant at the 0.05 level (2-tailed).

Table 18 reveals a significant relationship between age and well-being. This indicates a positive correlation between the two variables. As the age increases, the levels of well-being among the respondents also increases and vice versa. The correlation coefficient of 0.260* indicates a positive correlation between these two variables. This outcome indicates that as age increases, the levels of well-being among the respondents also tend

to increase, and vice versa. The p-value associated with the correlation coefficient is 0.041, which is lower than the conventional significance level of 0.05. This indicates that correlation between age and well-being is significant.

H2: There is a significance between age and well-being among the respondents.

4.8 Social Support on Stress Levels Among Research Scholars

Table 4.8.1

Table showing Level of social support

Variable	Frequency	Percent
poor	4	6.5
average	16	25.8
good	42	67.7
Total	62	100.0

Table 4.8.1 reveals the level of perceived social support the respondents have. Among the total respondents, significant (67.7%) have a good social support while more than one fourth (25.8%) gets an average social support and very few (6.5%) of respondents have poor support. This outcome indicates that, majority of the respondents perceive their social support as good which indicates a strong network of relationships available to them, which can contribute positively to their overall well-being.

Table 4.8.2

Table showing Level of significant support

Variable	Frequency	Percent
poor	8	12.9
average	16	25.8
good	38	61.3
Total	62	100.0

Table 4.8.2 reveals the significant level of perceived social support. Among the total respondents a significant (61.3%) percentage of respondents have a good significant social support. While one fourth (25.8%) of respondents have average social support and very few (12.9%) have poor social support. This outcome indicates that majority of the respondents have a strong network support. This could be due to various factors such as strong family relationship, close friendships or peer support.

Table 4.8.3

Table showing Level of family support

Variable	Frequency	Percent
poor	7	11.3
average	17	27.4
good	38	61.3
Total	62	100.0

Table 4.8.3 reveals the support received from the family, among the total respondents 61.3% have a good family support. More than one fourth (27.4%) of respondents receive an average support while (11.3%) receive a poor support from the family. This outcome indicates that the respondents receive a good family support which can positively contribute to their overall well-being and coping mechanisms.

Table 4.8.4

Table showing Level of friend's support

Variables	Frequency	Percent
poor	3	4.8
average	20	32.3
good	39	62.9
Total	62	100.0

Table 4.8.4 reveals the support received from the friends. Among the total respondents, a significant percentage (62.9%) of respondents have good friends support, less than one third (32.3%) of respondents have an average support, while a very minimum (4.8%) of respondents have poor friends' support. The outcome indicates that majority of the respondents have friends as a valuable source of support which can contribute to their overall well-being and coping mechanism during their academic journey.

Table 4.8.5

Table showing Correlations between social support and stress

Variable	Mean of Social Support		
		Sum of PSS	
Mean of Social Support	Pearson Correlation	1	-.224
	Sig. (2-tailed)		.080
	N	62	62
Sum of PSS	Pearson Correlation	-.224	1
	Sig. (2-tailed)	.080	
	N	62	62

The Pearson correlation analysis revealed a significant relationship between stress and social support, with a p-value of $-.224$ (<0.05), indicating rejection of the null hypothesis. The correlation coefficient, i.e., $R = -.224$ suggests a positive correlation. This implies that as social support increases, perceived stress tends to decrease and vice versa. This outcome indicates that, social support plays a very crucial role reducing the negative effects of stress and can act as a protective factor for reducing the stress level among the research scholars. Since, the study used non-probability sampling, a non-parametric test was conducted to examine the significance of the relationship between stress and social support. The result of this analysis revealed that there is no significant association between perceived stress and social support.

H3- There is no significant relationship between social support and perceived stress.

4.9 Summary of the Chapter

The data analysis chapter explores different aspects related to research scholars. It includes the interpretation of socio-demographic details, perceived stress levels, academic stressors, personal and social stressors, coping mechanisms, well-being, and social support. The socio-demographic details were presented using figures and tables, which effectively showed the distribution and characteristics of the research scholars and the frequency, level, correlation and crosstabulations are represented in tables with the valid percentage and frequency. Interpretations of graphs and tables were also given below the same.

**CHAPTER FIVE: FINDINGS, SUGGESTIONS AND
CONCLUSIONS**

Chapter Five: Findings, Suggestions and Conclusions

5.1 Overview of the Chapter

The main aim of the study was to study the Perceived stress, Coping mechanisms, and Well-being of Research scholars in Thiruvananthapuram. The objectives of the study included determining the perceived level of stress among social science research scholars, identifying and measuring specific academic stressors, identifying and measuring personal and social stressors, understanding the coping mechanisms used by research scholars, determining the effects of stress on research scholars' wellbeing, and assessing the effects of social support on stress levels. The key findings from the study are summarised in this chapter. It gives suggestions, recommendations, and outcomes based on the findings and summarizes the major findings. The goal is to give a thorough overview of all of the study that was done. The chapter emphasizes key findings regarding perceived stress levels, particular stressors encountered by research academics, coping methods employed to manage stress, the effects of stress on wellbeing, and the contribution of social support to reducing stress levels. By focusing on these aspects, the study contributes improve our knowledge of the difficulties experienced by research scholars and sheds light on useful coping mechanisms and support networks. In order to promote the wellbeing of research academics in Thiruvananthapuram, the chapter ends with suggestions for future research and practical applications.

5.2 Summary of Major Findings

5.2.1 Socio-Demographic Profile of the Respondents

Personal Profile

- Majority of the respondents in the study are female.
- Majority of the respondents of the study was from the age group 23- 45.
- Unmarried population were higher than married population of respondents in the study.

Academic profile

- The majority of the respondents have obtained an MA degree.

- The majority of respondents meet the PhD qualification criteria, which includes having a NET qualification as the highest.
- Most of the respondents in the study are affiliated with the Kerala University, specifically the Kariyavattom campus.
- The respondents included in the study have been pursuing their PhD between the years 2006 and 2023.
- All of the respondents undertaking PhD in the study are affiliated with the Kerala University.
- Majority of the respondents are associated with the Department of Sociology.

5.2.2 Perceived Stress Among Respondents

- The majority of the respondents (73%) indicated that they were undergoing moderate level of stress.
- There is no significant association between age and perceived stress.
- There is no relationship between Ph.D. Qualification criteria of respondents and perceived stress, the respondents are experiencing a similar moderate level of stress.
- The relationship between gender and level of perceived stress reveals that, higher proportion of female respondents experience moderate levels of stress compared to male respondents. This can be due to the higher number of female respondents.
- The relationship between PhD department and perceived stress reveals that different departments have varying levels of stress experienced by research scholars.
- The relationship between PhD stage and perceived stress revealed that, 40% of the respondents doing course work experience high stress.

5.2.3 Academic Stressors Experienced by Research Scholars

- Majority of the respondents during their coursework experience moderate stress.
- Majority of respondents experience moderate stress while formulating research proposal formulation.
- Due to lack of time management, 45.2% experience moderate stress.

- When presenting research paper at conference 37.1% experience moderate stress.
- 35.5% experience moderate stress while publishing papers.
- 30.6% fear failure during their academic journey.
- 24.2% experience high stress because of difficulty in understanding concepts and theories.
- 32.3% experience high stress due to meeting academic standards and committee expectations.

5.2.4 Personal and Social Stressors Experienced by Research Scholars

- Half of the respondents experience high stress due to financial constraints and lack of funding.
- More than one third of respondents feel frequently feel supported by their supervisors.
- 33.9% sometimes feel lack of social support during their PhD program
- Majority of respondents sometimes feel self-doubt related to their abilities as research
- 29% of respondents feel moderate as well as high stress due to health issues during their PhD program.
- Majority of respondents take criticism related to their academic work moderately well.
- 40.3% of respondents receive moderate support from peers in managing academic stress.
- Majority of respondents have very high uncertainty about their future career after completing PhD.

5.2.5 Coping Mechanisms of Research Scholars

- Majority of respondents seek social support from fellow scholars to cope with stress related to PhD studies.
- Majority of respondents doesn't seek professional help as coping mechanisms for stress related to PhD studies.
- For 52% of respondents, dedicating time for self-care is rated as not effective coping mechanism.

- 66% of respondents set realistic goals and expectations to cope with stress related to PhD studies.
- 51.6% doesn't seek guidance from mentor as a coping mechanism for stress related to PhD studies.
- For majority of respondents the coping mechanisms they use to deal with stress is not effective.

5.2.6 Well-being of Research Scholars

- 51.6% of the respondents in the study have worst possible quality of life.
- The relationship between gender and wellbeing revealed 78% of female have the worst possible quality of life.
- The relationship between stage of PhD and well-being revealed that majority of the respondents during the beginning stage experience worst possible quality of life.
- The relationship between nature of fellowship availing and level of well-being revealed that majority of the respondents are availing NET Fellowship and they have the best and worst possible quality of life.
- The correlation revealed that age and well-being have a significant relationship. As the age increases, the levels of well-being among the respondents also increases and vice versa.

5.2.7 Social Support on Stress Levels Among Research Scholars

- Majority of the respondents in the study have a good social support.
- Majority of respondents have a good significant and family support.
- 62.9% of respondents have a good friends support.
- There is no significant relationship between social support and perceived stress.

5.3 Suggestions

The stress experienced by research scholars must be addressed. Following are the suggestions of the study put forward by the researcher:

- To eradicate the stress among research scholars, stress management programs should be developed specifically for these scholars, considering the academic, personal, and social stressors they face. These programs would provide

guidance on effective time management, coping strategies, and the importance of having a support network.

- Both male and female respondents experience moderate levels of stress. This highlights the need for addressing stress among research scholars, irrespective of gender, to promote their well-being and academic performance.
- To reduce the academic stressors, research scholars should be given an orientation at the beginning of their program, providing them with clear information about their academic requirements. Also, support programs can be implemented within each department to specifically assist research scholars in managing their academic stressors. These programs can offer guidance and support in areas such as research proposal formulation, paper presentations, and meeting academic standards.
- As majority of the respondents have high stress due to financial constraints and lack of funding, it is crucial to address this issue by exploring additional options for increased funding or scholarships specifically aimed at supporting research scholars. By providing more financial resources, scholars can alleviate the stress associated with financial constraints and concentrate more on their studies and research work.
- For an effective coping mechanism and alleviating social stressors. The institutions can implement an effective mentorship program to provide research scholars with guidance and support throughout their academic journey. Mentors can offer advice, help with problem-solving, and provide a supportive environment for scholars to discuss their concerns and worries related to their PhD studies.
- As majority of the respondents in the study feel very high uncertainty about their future career prospects after completing PhD, career guidance and planning sessions for research scholars to help them navigate uncertainties regarding their career prospects after completing their PhD can be implemented. These sessions will provide valuable resources and networking platforms to enhance confidence and a readiness for their post-PhD journey.
- For enhancing coping mechanism and reducing stress, research scholars should be encouraged to connect and build a network with their peers to create

a supportive community. This will provide an emotional support and collaboration within the research scholars.

- Even though there is no significant relationship between social support and perceived stress in the study, it is crucial to create a supportive environment within academic institutions. For encouraging the collaboration, teamwork, and providing platforms for scholars to connect and support each other are essential.

5.4 Implications for Social Work Practice

- Research scholars frequently face a variety of stresses that can negatively affect their mental health and wellbeing. By including specialized therapies that address the unique stressors experienced by research scholars, social workers in the educational institutions can play a crucial role.
- Social workers can advocate for increasing awareness and resources for mental health services on campus for reducing the stigma associated with seeking help, encouraging research scholars to access counselling and therapy services when needed.
- Social workers can organize workshops focused on building skills related to communication, conflict resolution. This can help the research scholars navigate both academic and interpersonal challenges, contributing to a healthier research environment.
- Social workers can provide immediate crisis intervention and support. By offering counselling, connecting scholars with appropriate resources, and ensuring a safe and supportive environment during times of acute stress.
- By collaborating with institutions, social workers can play a role in promoting work-life balance among research scholars by advocating for policies to implement flexible work arrangements and encouraging scholars to engage in non-academic activities that foster well-being.

5.5 Conclusion

Stress is inevitable but a normal part of life (Heckman, 2019). This study focused on assessing the level of perceived stress, coping mechanisms, and well-being and the impact of social support on stress among the research scholars in Thiruvananthapuram, particularly in the field of Social Sciences. For the data collection standardized scales and self-structured questionnaire were used. The data was

collected from 62 research scholars from Thiruvananthapuram, through convenience sampling. The findings provided insights into the experiences of the scholars and their academic, social and personal backgrounds. The results showed that a majority of the research scholars reported experiencing a moderate level of perceived stress. Factors such as gender, department, and the stage of their PhD program influenced their stress levels. Various academic stressors, including coursework, research proposal formulation, time management, presentations, publishing papers, fear of failure, and meeting academic standards, were found to have significantly contribute to their stress. Personal and social stressors, such as financial constraints, social support, self-doubt, health issues, career uncertainty, and academic criticism, also had an impact on their overall well-being. Also, as coping mechanisms, research scholars commonly seek social support from their peers as a way to manage stress. Other strategies included that included were, setting realistic goals, practicing self-care, seeking guidance from mentors, and occasionally seeking professional help. However, majority of respondents responded, that their coping mechanisms were not highly effective in alleviating their stress levels. The study revealed that a significant portion of research scholars are having poor quality of life. Factors such as gender, PhD stage, nature of fellowship, and age were found to be related to their well-being. Lastly, there was no significant relationship was found between social support and perceived stress. In conclusion, this study emphasized the complex nature of stress experienced by research scholars in Thiruvananthapuram. It highlights the importance of recognizing and addressing the various stressors they face during their academic journey, by promoting an effective coping mechanisms to improve their well-being.

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ANNEXURES

Annexures 1: Consent Form

Hello, I'm Charulatha S. Kumar This Form aims to collect data on the psycho-social stress experienced by research scholars in Thiruvananthapuram, including their coping mechanisms and overall well-being. Your insights will help shape interventions and support systems to enhance mental health and well-being within our scholarly community. Don't miss this opportunity to have your voice heard and contribute to positive change. Let's pave the way for a brighter and healthier future for research scholars in Thiruvananthapuram.

Purpose of study: To understand the Psycho-social stress, Coping mechanisms, and Well-being of Research scholars in Thiruvananthapuram.

Eligibility: Participants must be research scholars from social science discipline in Trivandrum district.

Informed consent: If you wish to participate in the study, the researcher will ask you for your personal information. The information collected will be strictly in the hands of the researcher and the researcher will not disclose the identity and the information will only be used for the research purpose.

Remember that you have the right to withdraw from the study at any time. If you have any doubts regarding any questions, feel free to contact me at charulathaskumar107@gmail.com

I will be very grateful if you could participate in this study by giving your valuable time.

Thank You.

Annexure 2: Questionnaire

Section 1: Socio demographic details

1. Name

2. Age:

3. Gender:

(a) Female

(b) Male

(c) Transgender

4. Bachelor's Degree:

5. Master's degree:

(a) M.A.

(b) M. Sc

(c) M. Com

(d) MBA

(e) MSW

(f) Any other

6. Ph. D. Qualification:

(a) JRF

(b) NET

(c) University entrance

(d) Others

7. Academic institution:

8. Name of University:

9. Year of starting Ph.D.:

10. Current year of the Ph.D. program:

11. Ph.D. Department:

12. Stage of your Ph.D.:

(a) Beginning

(b) Course Work

- (c) Literature review
- (d) Tool Preparation
- (e) Data Collection
- (f) Data Analysis
- (g) Writing
- (h) Pre-submission
- (i) Any other

13. Marital status:

- (a) Unmarried
- (b) Married
- (c) Divorced

14. Religion:

- (a) Hindu
- (b) Christian
- (c) Islam

15. Nature of fellowship availing:

- (a) University fellowship
- (b) JRF
- (c) NET
- (d) Others

Section 2: Perceived stress scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate with a check how often you felt or thought a certain way.

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

16. In the last month, how often have you been upset because of something that happened unexpectedly?

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

17. In the last month, how often have you felt that you were unable to control the important things in your life?

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

18. In the last month, how often have you felt nervous and "stressed"?

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

19. In the last month, how often have you felt confident about your ability to handle your personal problems?

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

20. In the last month, how often have you felt that things were going your way?

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

21. In the last month, how often have you found that you could not cope with all the things that you had to do?

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

22. In the last month, how often have you been able to control irritations in your life?

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

23. In the last month, how often have you felt that you were on top of things?

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

24. In the last month, how often have you been angered because of things that were outside of your control?

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

25. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

0-never 1-almost never 2- sometimes 4-fairly often 5-very often

Section 3: Academic stressors

Rate each item on a scale of 1 to 5

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

Please rate the extent of stress you experience from the following academic tasks or responsibilities:

26. Coursework

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

27. Formulating a research proposal

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

28. Time management 1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

29. Presenting research paper at the conference

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

30. Publishing research papers

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

31. Fear of failure

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

32. Struggling with understanding concepts and theories.

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

33. Level of pressure to meet academic standards and committee expectations.

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

Section 4: Personal and social stressors

Rate each item on a scale of 1 to 5

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

34. How would you rate the level of stress you experience due to financial constraints and lack of funding?

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

35. How well supported do you feel by your supervisors in your academic journey?

1 - Rarely 2 - Occasionally 3 - Sometimes 4 - Frequently 5 - Almost always

36. Do you feel a lack of social support during your Ph.D. program?

1 - Rarely 2 - Occasionally 3 - Sometimes 4 - Frequently 5 - Almost always

37. To what extent do you experience self-doubt related to your abilities as a research scholar?

1 - Rarely 2 - Occasionally 3 - Sometimes 4 - Frequently 5 - Almost always

38. How would you rate the level of stress caused by health issues during your Ph.D. program?

1 - Very low stress 2 - Low stress 3 - Moderate stress 4 - High stress 5 - Very high stress

39. How well do you cope with criticism of your academic work?

1 - Very well 2 - Well 3 - Moderately well 4 - Poorly 5 - Very poorly

40. How would you rate the level of support you receive from your peers in managing academic stress?

1 - Very low support 2 - Low support 3 - Moderate support 4 - High support 5 - Very high support

41. Do you feel uncertain about future career prospects after completing your Ph.D.?

1 - Not significant uncertainty 2 - Mild uncertainty 3 - Moderate uncertainty 4 - High uncertainty 5 - Very high uncertainty

Section 5: Coping mechanisms

Choose any of this option (a) yes (b) no

42. Do you rarely seek social support from fellow Ph.D. scholars to cope with stress related to your Ph.D. studies?

(a) yes (b) no

43. Do you occasionally seek professional help as a coping mechanism for stress related to your Ph.D. studies?

(a)yes (b) no

44. Is taking breaks and dedicating time for self-care rated as not effective as a coping mechanism for stress related to your Ph.D. studies?

(a) yes (b) no

45. Do you rarely set realistic goals and expectations to cope with stress related to your Ph.D. studies?

(a) yes (b) no

46. Do you occasionally seek guidance from mentors as a coping mechanism for stress related to your Ph.D. studies?

(a) yes (b) no

47. Is the overall effectiveness of the coping mechanisms you use to deal with stress related to your Ph.D. studies rated as not effective?

(a)yes (b) no

Section 6: The WHO-5 questionnaire Instructions

Please indicate for each of the 5 statements which is closest to how you have been feeling over the past 2 weeks.

5 – All the time 4-Most of the time 3-More than half of the time 2-Less than half of the time 1- Some of the time Please note -The higher numbers mean better well-being.

48.I have felt cheerful and in good spirits

5 – All the time 4-Most of the time 3-More than half of the time 2-Less than half of the time 1-Some of the time

49.I have felt calm and relaxed

5 – All the time 4-Most of the time 3-More than half of the time 2-Less than half of the time 1-Some of the time

50. I have felt active and vigorous.

5 – All the time 4-Most of the time 3-More than half of the time 2-Less than half of the time 1-Some of the time

51. I woke up feeling fresh and rested

5 – All the time 4-Most of the time 3-More than half of the time 2-Less than half of the time 1-Some of the time

52. My daily life has been filled with things that interest me

5 – All the time 4-Most of the time 3-More than half of the time 2-Less than half of the time 1-Some of the time

Section 7: Multidimensional Scale of Perceived Social Support Instructions

Read each statement carefully. Indicate how you feel about each statement.

Rate each item on a scale of 1 to 7

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

53. There is a special person who is around when I am in need.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

54. There is a special person with whom I can share joys and sorrows.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

55. My family really tries to help me.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

56. I get the emotional help & support I need from my family.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

57. I have a special person who is a real source of comfort to me.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

58. My friends really try to help me.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

59. I can count on my friends when things go wrong.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

60. I can talk about my problems with my family.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

61. I have friends with whom I can share my joys and sorrows.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

62. There is a special person in my life who cares about my feelings.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

63. My family is willing to help me make decisions.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree

64. I can talk about my problems with my friends.

1 - Very strongly disagree 2 – Strongly disagree 3 – Mildly disagree 4 – Neutral 5 – Mildly agree 6-Strongly agree 7-Very strongly agree