



Faculty of Cognitive Sciences and Human Development

**THE MODERATING ROLE OF GENDER IN THE RELATIONSHIP BETWEEN
PERFECTIONISM AND MENTAL HEALTH AMONG UNDERGRADUATE
STUDENTS**

BONG LAI MAO

Bachelor of Counselling with Honours

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the requirements for the degree of Bachelor of Counselling with Honours
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The project entitled '**THE MODERATING ROLE OF GENDER IN THE RELATIONSHIP BETWEEN PERFECTIONISM AND MENTAL HEALTH AMONG UNDERGRADUATE STUDENTS**' was prepared by **BONG LAI MAO (86337)** and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfillment of the requirements for a Bachelor of Counselling with Honours.

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ABSTRACT

This study examined the moderating role of gender in perfectionism and its relationship with academic performance, anxiety, and burnout among undergraduate students. A total of 137 students from Universiti Malaysia Sarawak (UNIMAS) completed validated instruments assessing perfectionism, anxiety, and burnout. Analyses included independent samples t-tests, Pearson correlations, multiple regression, and moderation analysis. Findings showed that female students reported significantly higher perfectionistic strivings than males, while no significant gender differences were found in perfectionistic concerns, academic performance, anxiety, or burnout. Perfectionistic strivings were positively associated with academic performance and anxiety, whereas perfectionistic concerns were linked to anxiety and both core and secondary burnout symptoms. Regression analyses confirmed perfectionistic concerns as a stronger predictor of anxiety and burnout. Gender was found to moderate only the relationship between perfectionistic concerns and burnout core symptoms. These findings suggest that although perfectionism is prevalent in both genders, its manifestation and psychological impact may vary. The results highlight how crucial it is to take gender into account when discussing perfectionism in academic and mental health settings.

Keywords: Perfectionism, Gender, Academic Performance, Anxiety, Burnout

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CHAPTER 1

INTRODUCTION

1.0 Introduction

This study aims to investigate the relationship between perfectionism and mental health, with a focus on anxiety and burnout among undergraduate students at Universiti Malaysia Sarawak (UNIMAS). It highlights the dimensions of perfectionism by investigating how they contribute to mental health issues in the academic environment. This chapter discusses the research details, including the study's background, problem statements, purposes, objectives, research questions, research hypotheses, theoretical and conceptual framework, conceptual and operational definitions, significance, and limitations.

1.1 Background of Study

Perfectionism is an individual characteristic characterised by a desire for flawlessness and very high-performance standards, as well as highly critical self-evaluations and the assumption that others expect perfection (Stoeber, 2020). According to Fang and Liu (2022), perfectionism has been an increasingly popular topic in counselling and clinical psychology since the turn of the century, from the onset of theoretical study to empirical research. An increasing number of researchers have gained significant interest in psychological research concentrating on perfectionism. Perfectionism is commonly viewed as a multifaceted trait, and numerous models of the characteristic exist, each with distinct dimensions, labels, and evaluations (Rassaby et al., 2021). In the past, perfectionism was often depicted as an unhealthy trait with pathological consequences for an individual (Kruger et al., 2023). However, it is now widely acknowledged that perfectionism encompasses maladaptive perfectionism, also known as perfectionistic concerns, and adaptive perfectionism, or perfectionistic strivings (Rassaby et al., 2021; Ellinas et al., 2023).

The study of perfectionism typically distinguishes between its strivings and concerns dimensions. According to Kruger et al. (2023), the key characteristic of perfectionistic strivings, also known as the high Standards dimension of the Almost Perfect Scale-Revised (APS-R) (Staney et al., 2001), entails setting high but attainable objectives and experiencing satisfaction in achievements, together with high levels of organisation and planning. On the other hand, the Discrepancy dimension, which represents the perceived difference between an individual's high expectations and actual performance, is strongly associated with perfectionistic concerns. Individuals with high levels of Discrepancy score have been associated with depression, anxiety, test anxiety, negative emotions, contemplation, and fear of receiving a poor evaluation. In contrast, the Standards dimension is linked to higher levels of positive affect and is inversely associated with anxiety, emotional dysregulation, and psychological distress (Kawamoto et al., 2022).

Mental health is a psychological well-being condition that allows people to deal with life's challenges, develop their full potential, pursue educational and professional goals effectively, and contribute to their communities (World Health Organization [WHO], 2022). It encompasses numerous aspects of social, psychological, and emotional well-being that influence people's thoughts, feelings, and actions in their day-to-day interactions. According to Gautam et al. (2024), mental health is a fundamental aspect of overall health as it includes more than just the absence of mental illness and is closely related to behaviour and physical health. It also significantly impacts how well a person manages stress, forms relationships with others, and overcomes adversity. According to Campbell et al. (2022), university students' financial worries, social transitions, and academic demands are all contributing to an increase in mental health issues. Significant psychological problems, including anxiety and burnout, can result from these challenges and are especially pertinent in the context of education.

In recent years, the prevalence of anxiety has steadily increased, making it one of the most important issues facing universities and colleges (Tan et al., 2023). It is often brought on by pressure to perform well academically, fear of dropping out, peer pressure, and uncertainty about the future. According to Konwar et al. (2023), excessive anxiety can impair a student's ability to think, concentrate, recall things, and perform well academically as a whole. Furthermore, ongoing anxiety can have detrimental long-term implications on one's mental health, sense of self, and prospects for a successful job. Another significant mental health concern is burnout, a psychological syndrome brought on by extended stress, especially in settings that value performance, such as universities and colleges. Schaufeli et al. (2020) characterised burnout into four key dimensions, including exhaustion (severe depletion of energy leading to feelings of cognitive and physical tiredness), mental distancing (mentally distinguishing oneself from duties indicated by a strong resistance or avoidance), cognitive impairment (memory issues, concentration and attention deficits, and inadequate cognitive performance), and emotional impairment (extreme emotional responses and feeling overwhelmed by one's emotions). Burnout among students is often linked to the demands of maintaining high academic standards, meeting deadlines, and fulfilling extracurricular responsibilities.

Perfectionism has a significant impact on mental health outcomes, especially in educational environments where performance pressures and high standards are prevalent. Perfectionistic strivings, characterised by setting high standards without excessive self-criticism, may serve as a protective factor from adverse outcomes for students while promoting resilience and motivation (Kruger et al., 2023). However, anxiety, burnout, and other psychological issues have been repeatedly associated with perfectionistic concerns, especially the Discrepancy dimension. High-discrepancy students often perceive a persistent discrepancy between their ideal and actual performance, leading to feelings of inadequacy and chronic stress (Rajapakse,

2024). Therefore, understanding the causes of these mental health issues is essential since university students, particularly those with perfectionistic tendencies, frequently experience anxiety and burnout. This study aims to advance knowledge of how perfectionism affects mental health outcomes by investigating the relationships among perfectionism (strivings and concerns), academic performance, anxiety, and burnout, and how gender plays a role in moderating the relationship between them.

1.2 Problem Statement

In both developing and developed countries, poor mental health is a complicated and widespread psychological issue among undergraduate university students (Mofatteh, 2021). The current undergraduate students are under a lot of social and academic pressure, which makes mental health conditions like anxiety and burnout increasingly prevalent. The pressure to succeed academically frequently coexists with these mental health issues. This pressure may be caused by perfectionistic tendencies, a complicated personality trait defined by an individual's pursuit of high standards and self-critical tendencies.

Although perfectionism and mental health have been studied extensively, little has been discovered about how these dynamics manifest in East Malaysia, where unique academic and cultural expectations, social pressures, and cultural norms may influence students' perfectionist tendencies and mental health. Much of the literature on perfectionism has been conducted in Western countries (Rassaby et al., 2021; Kawamoto et al., 2022), focusing on cultural contexts that may not apply to East Malaysian students. This underrepresentation highlights the need for localised research that captures the lived experiences of East Malaysian undergraduate students and provides culturally relevant insights. This study aims to fill the geographic gap in the literature caused by the paucity of research focusing on the interactions between these characteristics and perfectionistic tendencies.

Additionally, many studies have explored the multidimensional aspects of perfectionism, as proposed by Hewitt and Flett (1991) and Frost et al. (1990), including self-oriented perfectionism, socially prescribed perfectionism, other-oriented perfectionism, personal standards, concerns over mistakes, and doubts about actions. Although perfectionism has been extensively researched, few explore its complex nature. Certain aspects of perfectionism, particularly those assessed by the Almost Perfect Scale-Revised (APS-R), have subtle consequences that are frequently overlooked in empirical research. There is limited empirical information on how perfectionistic strivings and concerns impact academic achievement and mental health outcomes. Consequently, this lack of knowledge about the exact roles of the many dimensions of perfectionism and how to distinguish between them leaves a significant area unexplored.

Current theoretical frameworks that offer valuable insights into the dynamics between perfectionism, academic performance, anxiety, and burnout include Self-Determination Theory (SDT) and Cognitive Behavioural Therapy (CBT). However, these theories are frequently used in a general sense without being adequately integrated with perfectionism in other multidimensional models, such as the Almost Perfect Scale-Revised (APS-R). Although the APS-R provides an advanced approach for dividing perfectionism into perfectionistic concerns (Discrepancy) and strivings (high Standards) dimensions, little is known about how well it might fit into existing psychological theories. Due to this lack of integration, a knowledge gap exists regarding how theoretical frameworks can clarify the specific processes by which perfectionism affects academic performance and mental health.

This study aims to fill in these existing gaps by examining the relationship between gender, academic achievement, perfectionism, and mental health outcomes such as burnout and anxiety among UNIMAS undergraduate students. It aims to offer insights that may guide successful interventions to promote students' mental health and academic success in this environment.

1.3 Purpose of the Study

The purpose of this research is to gain further insight into how perfectionism affects undergraduate students' academic performance and mental health outcomes in UNIMAS, specifically when related to anxiety and burnout. This study aims to investigate the complex ways in which perfectionist tendencies impact students' psychological well-being by examining the dimensions of perfectionism using the APS-R (Slaney et al., 2001). In addition to understanding these relationships, this study aims to investigate gender differences in perfectionistic tendencies, thereby deepening existing discussions about how perfectionism manifests in various student demographics.

This study aims to raise awareness and broaden knowledge of the potential risks associated with perfectionism and its impact on students' academic performance and mental health within higher education institutions. By shedding light on the prevalence and consequences of perfectionistic tendencies, this study aims to offer empirical data to guide the development of student-specific mental health interventions. This includes creating intervention plans, providing therapy, and fostering a campus culture that balances academic success with mental health to help students better manage their perfectionistic impulses.

Additionally, by addressing important gaps in the literature, particularly concerning the cultural and demographic characteristics of UNIMAS undergraduate students, this study aims to contribute to the existing body of knowledge. The results will provide a more comprehensive understanding of how perfectionism affects academic performance and mental health in various cultural contexts, as research on this region-specific subject is scarce. By highlighting the relationship between perfectionism, academic performance, and mental health, the study aims to foster a more supportive learning environment that enables students to develop more effective coping mechanisms, become more adaptable, and experience reduced stress.

1.4 Research Objectives

The objectives of this study are:

- 1.4.1** To identify the levels of perfectionism (strivings and concerns), anxiety, and burnout among undergraduate students.
- 1.4.2** To identify gender differences in perfectionism (strivings and concerns), academic performance, anxiety, and burnout among undergraduate students.
- 1.4.3** To investigate the relationship between perfectionism (strivings and concerns) and academic performance among undergraduate students.
- 1.4.4** To investigate the relationship between perfectionism (strivings and concerns) and anxiety among undergraduate students.
- 1.4.5** To investigate the relationship between perfectionism (strivings and concerns) and burnout among undergraduate students.
- 1.4.6** To determine which dimensions of perfectionism (strivings or concerns) significantly predict academic performance, anxiety, and burnout.
- 1.4.7** To investigate the moderating effect of gender on the relationship between perfectionism (strivings and concerns) and academic performance.
- 1.4.8** To investigate the moderating effect of gender on the relationship between perfectionism (strivings and concerns) and anxiety.
- 1.4.9** To investigate the moderating effect of gender on the relationship between perfectionism (strivings and concerns) and burnout.

1.5 Research Questions

The research questions of this study are:

- 1.5.1** What are the levels of perfectionism (strivings and concerns), anxiety, and burnout among undergraduate students?
- 1.5.2** Are there gender differences in perfectionism (strivings and concerns), academic performance, anxiety, and burnout among undergraduate students?
- 1.5.3** What is the relationship between perfectionism (strivings and concerns) and academic performance among undergraduate students?
- 1.5.4** What is the relationship between perfectionism (strivings and concerns) and anxiety among undergraduate students?
- 1.5.5** What is the relationship between perfectionism (strivings and concerns) and burnout among undergraduate students?
- 1.5.6** To what extent do perfectionism (strivings and concerns) predict academic performance, anxiety, and burnout among undergraduate students?
- 1.5.7** Does gender moderate the relationship between perfectionism (strivings and concerns) and academic performance?
- 1.5.8** Does gender moderate the relationship between perfectionism (strivings and concerns) and anxiety?
- 1.5.9** Does gender moderate the relationship between perfectionism (strivings and concerns) and burnout?

1.6 Research Hypothesis

Hypothesis 1: There is a significant gender difference in perfectionistic strivings among undergraduate students.

Hypothesis 2: There is a significant gender difference in perfectionistic concerns among undergraduate students.

Hypothesis 3: There is a significant gender difference in academic performance among undergraduate students.

Hypothesis 4: There is a significant gender difference in anxiety among undergraduate students.

Hypothesis 5: There is a significant gender difference in burnout among undergraduate students.

Hypothesis 6: There is a significant relationship between perfectionistic strivings and academic performance among undergraduate students.

Hypothesis 7: There is a significant relationship between perfectionistic concerns and academic performance among undergraduate students.

Hypothesis 8: There is a significant relationship between perfectionistic strivings and anxiety among undergraduate students.

Hypothesis 9: There is a significant relationship between perfectionistic concerns and anxiety among undergraduate students.

Hypothesis 10: There is a significant relationship between perfectionistic strivings and burnout among undergraduate students.

Hypothesis 11: There is a significant relationship between perfectionistic concerns and burnout among undergraduate students.

Hypothesis 12: Perfectionistic strivings significantly predict academic performance among undergraduate students.

Hypothesis 13: Perfectionistic concerns significantly predict academic performance among undergraduate students.

Hypothesis 14: Perfectionistic strivings significantly predict anxiety among undergraduate students.

Hypothesis 15: Perfectionistic concerns significantly predict anxiety among undergraduate students.

Hypothesis 16: Perfectionistic strivings significantly predict burnout core symptoms among undergraduate students.

Hypothesis 17: Perfectionistic concerns significantly predict burnout core symptoms among undergraduate students.

Hypothesis 18: Perfectionistic strivings significantly predict burnout secondary complaints among undergraduate students.

Hypothesis 19: Perfectionistic concerns significantly predict burnout secondary complaints among undergraduate students.

Hypothesis 20: Gender significantly moderates the relationship between perfectionistic strivings and academic performance.

Hypothesis 21: Gender significantly moderates the relationship between perfectionistic concerns and academic performance.

Hypothesis 22: Gender significantly moderates the relationship between perfectionistic strivings and anxiety.

Hypothesis 23: Gender significantly moderates the relationship between perfectionistic concerns and anxiety.

Hypothesis 24: Gender significantly moderates the relationship between perfectionistic strivings and burnout core symptoms.

Hypothesis 25: Gender significantly moderates the relationship between perfectionistic concerns and burnout core symptoms

Hypothesis 26: Gender significantly moderates the relationship between perfectionistic strivings and burnout secondary complaints.

Hypothesis 27: Gender significantly moderates the relationship between perfectionistic concerns and burnout secondary complaints.

1.7 Theoretical Framework

The current study is grounded in several interconnected theories that offer a comprehensive understanding of the relationship between perfectionism, academic performance, and mental health consequences, particularly anxiety and burnout, as well as gender as a moderating variable. The framework examines how perfectionism affects the mental health of undergraduate students by integrating theories related to anxiety and burnout, including Self-Determination Theory (SDT), Multidimensional Perfectionism Theory (MPT), and Cognitive Behavioural Therapy (CBT).

1.7.1 Multidimensional Perfectionism Theory (MPT)

The concept of perfectionism is complex, encompassing both the positive and negative aspects of striving for excellence. This study adopts the Multidimensional Perfectionism

Theory (Hewitt & Flett, 1991) as the foundational framework while incorporating the conceptual distinctions made by Slaney et al. (2001) in the development of the Almost Perfect Scale-Revised (APS-R). It provides a comprehensive framework for understanding perfectionism as a complex concept beyond setting high standards or aiming for perfection. The APS-R offers a nuanced perspective on perfectionism, focusing on two main dimensions: perfectionistic strivings (High Standards) and perfectionistic concerns (Discrepancy). High standards, a characteristic of perfectionistic strivings, indicate an effective pursuit of excellence. Individuals with high standards will aim for success, set ambitious yet achievable objectives, and derive satisfaction from their accomplishments.

Individuals who exhibit perfectionistic strivings typically have excellent self-esteem and are mostly resilient to the negative long-term consequences of perceived failures (Melrose, 2011). High standards encourage individuals to grow personally and succeed academically without causing inappropriate distress or self-criticism. On the other hand, discrepancy, the perceived difference between one's expectations and performance, is a defining characteristic of perfectionistic concerns. This component encapsulates the negative and self-defeating aspects of perfectionism when people are dissatisfied with their accomplishments. Adverse psychological effects like anxiety, burnout, and emotional exhaustion are strongly associated with perfectionistic concerns. The inability of individuals with high discrepancy to live up to their expectations frequently overwhelms them, leading to ongoing stress and deteriorating mental health. Therefore, understanding the differences between perfectionistic strivings and concerns is essential to comprehending how each affects mental health. By focusing on these aspects, the study aims to investigate the relationships between perfectionism, academic performance, anxiety, and burnout among undergraduate students, with an emphasis on how different dimensions of perfectionism affect mental health outcomes across different genders.

1.7.2 Self-Determination Theory (SDT)

Self-Determination Theory (SDT), developed by Ryan and Deci (2000), provides a framework for understanding the relationship between perfectionism, academic performance, anxiety, and burnout among undergraduate students. SDT emphasizes that effective functioning and well-being require satisfying three core psychological needs, including autonomy, competence, and relatedness. Individuals who meet these needs are more likely to experience intrinsic motivation, emotional resilience, and overall well-being. Perfectionistic strivings, characterized by high yet realistic standards, are compatible with intrinsic motivation, in which students strive for personal mastery and fulfillment. These students frequently feel competent and in control of their academic objectives, which helps them manage stress and protects against mental health issues like anxiety and burnout. In contrast, extrinsic motivations, such as the fear of failure, the need for praise, or cultural standards, are often the driving forces behind perfectionistic concerns, characterized by excessive self-criticism and unrealistic expectations. This approach erodes students' sense of competence and autonomy, trapping them in an ongoing cycle of anxiety, dissatisfaction, and fatigue. Anxiety is increased by the ongoing discrepancy between unrealistic expectations and actual outcomes, and emotional fatigue and burnout result from the persistent desire for perfection. Therefore, SDT provides a comprehensive framework for understanding how the satisfaction or unfulfillment of psychological needs impacts mental health outcomes by linking perfectionism to intrinsic and extrinsic motivational orientations. This highlights the importance of promoting needs satisfaction to mitigate the adverse effects of perfectionistic concerns and enhance the well-being of students.

1.7.3 Cognitive Behavioural Theory (CBT)

Cognitive behavioural theory (CBT) serves as the foundation for comprehending the relationship between perfectionism, academic performance, and mental health outcomes such as anxiety and burnout. CBT highlights the complex interactions between thoughts, feelings, and behaviours, with negative cognitive distortions frequently leading to emotional distress and dysfunctional behaviours (Ryum & Kazantzis, 2024). Perfectionism, particularly in its discrepancy dimensions, is a perfect example of how cognitive distortions may influence emotions and behaviour, leading to detrimental outcomes like anxiety and burnout. CBT also emphasizes how certain behaviours fuel the anxiety caused by perfectionism. Persistent anxiety is brought on by these cognitive distortions, which also cause extreme performance dissatisfaction and fear of failure. As individuals strive to fulfill impossible standards, perfectionistic concerns frequently find themselves caught in an endless cycle of stress and anxiety, which only serves to increase their feelings of failure. Their psychological resources are gradually exhausted by the ongoing emotional and mental pressure, leading to burnout, which is represented by isolation, decreased academic efficacy, and emotional exhaustion. Moreover, maladaptive behaviours that reinforce these negative thought patterns and prolong the stress cycle include procrastination and overexertion. On the other hand, perfectionistic strivings are associated with healthier thought processes, enabling individuals to maintain high but attainable objectives and accept failures as opportunities for improvement, which in turn lowers their risk of anxiety and burnout. Using CBT, this study examines the impact of perfectionism-related cognitive distortions and behaviours on the mental health outcomes of undergraduate students.

1.8 Conceptual Framework

The conceptual framework for this research investigates the relationship between perfectionism, academic performance, and mental health, particularly anxiety and burnout, among undergraduate students at UNIMAS. This framework provides a structured approach to understanding how perfectionism, its strivings and concerns dimensions, impact academic performance and mental health outcomes, such as anxiety and burnout, in higher education, where students face higher expectations and challenging workloads.

1.8.1 Key Concepts

Perfectionism is a multidimensional personality trait characterized by a relentless pursuit of perfection, high standards of self, and an overly critical attitude towards one's work. Perfectionism is commonly classified into two dimensions, including its strivings and concerns dimensions. Perfectionistic strivings include setting challenging yet achievable goals, boosting motivation and performance, and encouraging personal fulfilment. On the other hand, perfectionistic concerns are characterized by unattainable goals, a fear of failure, and an inability to be content with one's accomplishments. These characteristics often have negative psychological impacts. The primary goal of this study is to investigate how these dimensions of perfectionism affect undergraduate students' academic performance and mental health, particularly in terms of anxiety and burnout.

Academic performance, measured by grades, test scores, and other academic accomplishments, is how students have reached their learning objectives. For undergraduate students, it is a possible consequence and a cause of stress. Perfectionistic concerns may hinder academic success by encouraging procrastination, fear of failure, and emotional tiredness. However, perfectionistic strivings are frequently linked to improved academic performance because they promote goal-oriented behaviours and drive. Therefore, it is essential to

understand how perfectionism and academic achievement interact to develop effective strategies for improving students' academic and mental health.

Anxiety is a psychological condition that is characterized by excessive fear, worry, and physiological arousal. Anxiety in academic contexts is frequently caused by high expectations and the fear of failing, and these factors are closely associated with perfectionism. Perfectionistic concerns cause students to overestimate the consequences of their perceived mistakes, which exacerbates anxiety through cognitive distortions like self-criticism and catastrophizing. Undergraduate students' anxiety has a significant impact on their learning, decision-making, and general well-being, making it a critical component in assessing their mental health.

Burnout can result from prolonged stress, particularly in challenging educational environments. Its characteristics include emotional exhaustion, isolation, and a decline in personal achievement. Since perfectionistic concerns create continual pressure to meet unreasonable goals, it frequently leads to burnout, excessive workload, psychological stress, and a lack of fulfilment. Therefore, investigating perfectionism-related burnout can help understand how academic experiences and expectations impact students' mental health.

A moderating factor in the relationship between perfectionism and mental health is gender. Men and women are often subjected to different societal and cultural expectations, which can influence how they perceive and respond to perfectionism. Women could experience more pressure from society to achieve academic excellence and perfection, which could exacerbate anxiety and burnout. However, men may accept perfectionistic tendencies in a different way, which could result in differing effects on mental health. Therefore, examining gender differences in this context provides significant insights for developing targeted mental health interventions.

The five main ideas underlying this study, including perfectionism, academic performance, anxiety, burnout, and gender, are investigated in relation to one another among undergraduate students. By examining how perfectionism, as a complex construct, relates to academic performance, anxiety, and burnout, this study aims to investigate the consequences of perfectionism demands on mental health.

1.8.2 Relationship between Concepts

This study investigates the relationship between undergraduate students' anxiety, burnout, academic performance, perfectionism, and the moderating effect of gender differences. Perfectionism, a multidimensional personality trait, acts as an independent variable impacting mental health outcomes. Anxiety and burnout are closely linked to perfectionistic concerns, which are demonstrated by excessive self-criticism, unreasonable expectations, and a fear of failure. Cognitive distortions such as catastrophizing and distorted thinking, which intensify the fear of falling below their own goals, are common causes of elevated anxiety among perfectionistic individuals. This ongoing worry may eventually deplete their mental and emotional reserves, leading to burnout, emotional fatigue, disengagement, and a decline in academic performance.

On the other hand, anxiety and burnout are less likely to arise from perfectionistic strivings, which are characterized by high but reasonable standards and a positive self-evaluation. Individuals who exhibit perfectionistic strivings decrease the detrimental psychological impacts of stress by employing healthy coping mechanisms, maintaining a sense of accomplishment, and demonstrating academic resilience. Although the primary dependent variable in this study is anxiety and burnout, academic performance is also investigated as a potential consequence of the long-term effects of perfectionistic concerns.

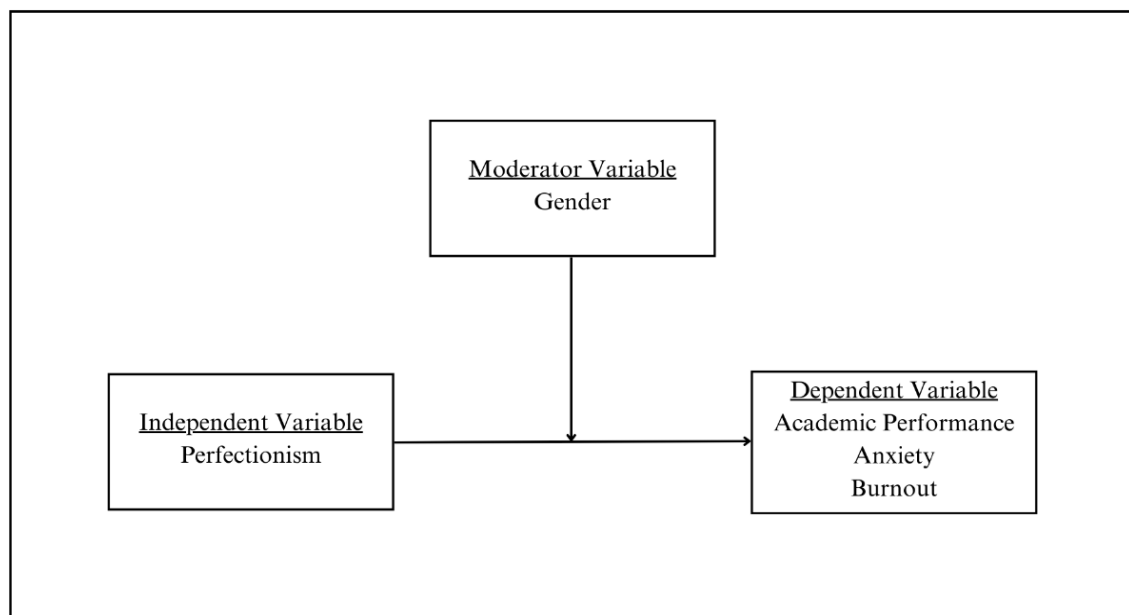
Another significant variable in this study is academic performance, which could be impacted by perfectionism. With its emphasis on aspirational yet achievable objectives, perfectionistic strivings can enhance academic achievement by fostering drive and promoting productive study techniques. On the other hand, perfectionistic concerns can negatively impact academic achievement by erecting mental and emotional obstacles that prevent students from achieving their goals.

Since prior research by Musumeci et al. (2022) indicates that men and women may experience and display perfectionism, anxiety, and burnout differently, gender plays a moderating role in these interactions. For instance, it is frequently noted that women have higher levels of anxiety and maladaptive perfectionism. In contrast, men were more likely to fulfil the description of adaptive perfectionism.

1.8.3 Conceptual Framework Diagram

Figure 1

Conceptual Framework Diagram



The conceptual framework focuses on how perfectionism, academic performance, anxiety, burnout, and gender are interrelated. Perfectionism is the independent variable in this framework, and it directly impacts the dependent variables, such as burnout, anxiety, and academic achievement. These results can be positively or negatively affected by perfectionism, which is commonly categorized into perfectionistic strivings and concerns. For instance, whereas perfectionistic concerns can lead to increased worry and burnout, characterized by psychological suffering, emotional exhaustion, and cognitive impairment, perfectionistic strivings may encourage students to strive for academic excellence.

The framework introduces gender as a moderating variable, meaning it influences the direction or strength of the relationships between the dependent variables and perfectionism. For example, perfectionism may manifest differently in men and women, resulting in differing levels of anxiety, burnout, or academic performance. According to research by Musumeci et al. (2022), men may have distinct coping strategies that affect their levels of burnout and performance. In contrast, women are frequently more prone to perfectionistic concerns, which heightens their susceptibility to anxiety and burnout. Therefore, gender is essential to a more thorough understanding of these relationships.

Three important outcomes that are impacted by perfectionism are academic performance, anxiety, and burnout. Anxiety represents the psychological stress brought on by perfectionistic impulses, whereas academic performance measures how perfectionism affects students' ability to meet learning objectives. Long-term perfectionistic concerns can lead to burnout, a serious psychological consequence that manifests as emotional impairment, mental distance, exhaustion, and cognitive impairment. This framework emphasizes the need to investigate individual differences in how perfectionism affects mental health and academic performance by incorporating gender as a moderating variable, thereby offering a more comprehensive understanding of these relationships.

1.9 Definitions of Terms

1.9.1 Perfectionism

Conceptual Definition

Perfectionism is a multidimensional personality trait defined by the pursuit of perfection and extremely high-performance standards, coupled with a tendency for excessively critical evaluations of one's actions (Stoeber, 2020). Perfectionistic concerns, which include excessive worry about making mistakes, fear of failure, and persistent dissatisfaction with one's performance, frequently contribute to adverse psychological outcomes like stress, anxiety, and depression. On the other hand, perfectionistic strivings involve striving for excellence, maintaining order, and pursuing high personal goals, which frequently result in positive outcomes, such as achievement and satisfaction. The distinction between perfectionistic strivings and concerns underlines its complexity, as the trait can inspire individuals toward accomplishment while simultaneously posing challenges to mental well-being when it becomes excessive or unreachable.

Operational Definition

According to Slaney et al. (2001), Standards, Discrepancy, and Order are the primary components of perfectionism that can be measured using the Almost Perfect Scale-Revised (APS-R). Perfectionistic strivings are represented by the Standards dimension, which reflects an individual's ability to establish and pursue ambitious goals and standards. On the other hand, perfectionistic concerns are measured by the Discrepancy dimension, which focuses on how much individuals believe their performance falls short of their expectations. The Order dimension evaluates the need for structure, neatness, and organization in day-to-day living. Higher results on the Discrepancy scale indicate perfectionistic concerns, whereas higher scores on the Standards scale indicate perfectionistic strivings.

1.9.2 Mental Health

Conceptual Definition

According to the World Health Organization (WHO, 2022), mental health is a multifaceted state of well-being that includes emotional, psychological, and social well-being and is significantly influenced by biological, psychological, and environmental factors. It includes the absence of mental disorders and the presence of positive attributes, such as resilience, which are necessary for both individual and societal functioning. Mental health is defined as a dynamic state of well-being in which people can manage the everyday stresses of life, work productively, and contribute to their communities.

Operational Definition

Anxiety and burnout are two different mental conditions that will be used to evaluate undergraduate students' mental health in this study. According to Spitzer and Endicott (2018), a mental disorder is a relatively uncommon state that arises from an organic failure that is inherently and directly linked to dissatisfaction, disability, or other forms of disadvantage in its fully developed or extreme form. The disadvantage could be interpersonal, sexual, perceptual, or physical. By balancing negative aspects of mental health, like burnout, with positive aspects, like engagement, Schaufeli et al. (2007) define mental health as a state of well-being where people can manage job demands effectively, maintain motivation and resilience, and experience positive emotional, psychological, and social functioning within their work environment.

1.9.3 Anxiety

Conceptual Definition

Anxiety is defined as a high level of worry, fear, or anxiety caused by perceived stress, uncertainty, or challenges. According to the World Health Organisation (2022), it is conceptually typified by excessive concern, fear, and associated behavioural abnormalities. The severity of the symptoms is high enough to cause significant distress or functional impairment. Anxiety in this study refers mainly to the psychological distress and emotional stress brought on by perfectionistic concerns, especially when individuals see an inconsistency between their expectations and their actual accomplishments. Specifically for undergraduate students managing personal and academic demands, this ongoing anxiety and self-doubt can show up in the form of fear of failing, increased sensitivity to mistakes, and poor performance.

Operational Definition

The Generalized Anxiety Disorder 7-item (GAD-7) scale, created by Spitzer et al. (2006), is used for measuring anxiety. According to Kroenke et al. (2007), although being as prevalent as depression, anxiety receives less attention and is frequently undiagnosed and inadequately treated. Anxiety is characterized by symptoms like nervousness, restlessness, difficulty relaxing, and physical symptoms like tension or exhaustion. It is characterized by excessive concern and fear that interfere with day-to-day functioning. Using a seven-item self-report questionnaire, the GAD-7 assesses the degree of anxiety experienced over the previous two weeks (Spitzer et al., 2006). Responses range from "not at all" to "nearly every day." The severity and effect of anxiety are reflected in the scores, which are divided into minimal (0–4), mild (5–9), moderate (10–14), and severe (15–21) levels, reflecting the intensity and impact of anxiety on an individual's mental health and social functioning.

1.9.4 Burnout

Conceptual Definition

Burnout is characterized as a condition of extreme physical, mental, and emotional tiredness brought on by extended periods of high stress, especially when people feel overburdened and unable to keep up with commitments. Conceptually, burnout is characterized by three key dimensions, including exhaustion (feeling drained and fatigued), mental distance (detachment or indifference toward tasks), and cognitive and emotional impairment (reduced ability to think clearly and manage emotions effectively) (World Health Organization [WHO], 2019). Burnout symptoms, such as psychological distress, psychosomatic symptoms, and chronic fatigue, can arise from the constant pursuit of perfection and dissatisfaction when expectations are not met, especially for undergraduate students with demanding academic commitments.

Operational Definition

Burnout is measured using the Burnout Assessment Tool - Student Edition (BAT-S) (Schaufeli et al., 2020), a validated instrument designed to assess student burnout. According to Schaufeli et al. (2020), burnout is a condition characterized by physical, emotional, and mental exhaustion resulting from prolonged exposure to emotionally demanding work environments. Burnout can be evaluated in four core dimensions, such as exhaustion (severe physical and mental fatigue), mental distance (disengagement and detachment from academic work), cognitive impairment (difficulty concentrating and reduced mental clarity), and emotional impairment (difficulty managing emotions). By using a short 12-item self-reported questionnaire with responses evaluated on a 5-point Likert scale from "Never" (1) to "Always" (5), the BAT-S evaluates the degree of burnout. Greater burnout is indicated by higher ratings, which also demonstrate its impact on an individual's emotional, mental, and physical health.

1.9.5 Undergraduate Students

Conceptual Definition

Undergraduate students are individuals pursuing higher education at the bachelor's degree level, marking a transitional period between adolescence and adulthood. As they work to fulfil their educational objectives and prepare for professional employment, students face a variety of academic, social, and psychological difficulties. Undergraduate students are a crucial demographic for researching perfectionism and mental health because they frequently experience intense pressure to perform well academically while balancing social connections and personal development.

Operational Definition

In this study, undergraduate students are individuals enrolling in full-time bachelor's degree programs at the Universiti Malaysia Sarawak (UNIMAS). These students pursue a variety of academic fields and typically fall within the age range of 18 to 26. Respondents will be chosen from this group of students to investigate the relationship between perfectionism, academic performance, anxiety, and burnout.

1.10 Significance of Study

This study bridges the gap between theoretical knowledge and real-world implementation, benefiting various parties involved by encouraging improved academic and psychological outcomes. The study's conclusions have the potential to promote constructive changes in academic research, universities, and society, ultimately advancing students' overall growth.

1.10.1 Counselling Students

Counselling students are gaining a better knowledge of how perfectionism affects both academic performance and mental health based on this research. Counselling students can

create specialized interventions to address these issues by recognizing the strivings and concerns dimensions of perfectionism that lead to anxiety and burnout. The results also lay the groundwork for the practical application of psychological and counselling theories, such as Self-Determination Theory (SDT) and Cognitive Behavioural Therapy (CBT), to help people develop healthier perspectives on self-evaluation and goal setting.

1.10.2 University Institutions

Universities will significantly influence students' academic and mental health. Universities can utilize the practical implications of this study to develop programs and initiatives that address students' mental health needs. The findings of this study can direct the development of academic counselling services, peer support groups, and workshops aimed at controlling perfectionistic tendencies and lowering the level of anxiety and burnout. The study also highlights the importance of creating an environment that fosters perfectionistic strivings, which motivates students to strive for excellence without compromising their mental well-being.

1.10.3 Academic Researchers

This study contributes to the growing body of research on perfectionism and its effects on the academic performance and mental health of undergraduate students. It provides a more thorough understanding of the differences between perfectionistic strivings and concerns, and how they impact well-being and academic achievement in East Malaysia. Academic researchers can use the results to investigate associated variables, replicate the study in other cultural or demographic contexts, or create new initiatives and approaches to lessen the adverse effects of perfectionism. A solid foundation for further study is provided by incorporating validated instruments such as the APS-R, GAD-7, and BAT-S.

1.10.4 Society

This study investigates the cultural norms and societal expectations that often perpetuate perfectionistic concerns on a broader scale. The findings can impact public awareness efforts and cultural attitudes toward success and achievement by highlighting the negative consequences of excessive self-criticism and unattainable standards. In addition, the study promotes the commonality of getting mental health treatment, which lessens stigma and fosters emotional wellness and resilience in all groups.

1.11 Limitations

1.11.1 Limited Generalizability

The study focuses only on undergraduate students from Universiti Malaysia Sarawak (UNIMAS), whose experiences may be influenced by distinct cultural, social, and academic circumstances. For example, Sarawak's students may have cultural expectations that differ from those of students in other Asian countries or regions, which could have a distinct impact on their mental health and perfectionistic tendencies. As a result, the results might not be generalizable to larger groups, including students from other regions of Malaysia or in foreign settings. Therefore, to facilitate cross-cultural comparisons, future studies could expand the sample to encompass a broader range of institutional and cultural contexts.

1.12 Summary

This study examines the relationship between perfectionism, academic performance, and mental health, specifically anxiety and burnout, and gender as a moderating variable among undergraduate students at Universiti Malaysia Sarawak (UNIMAS). It presents a distinction between perfectionistic concerns, which are associated with anxiety and burnout, and perfectionistic strivings, characterized by high standards and a sense of satisfaction with achievement. It also looks at how these perfectionistic traits, especially perfectionistic concerns,

affect academic performance and mental health, and how gender may moderate these relationships. The study draws on theories such as Multidimensional Perfectionism Theory, Self-Determination Theory, and Cognitive Behavioural Theory to frame its conceptual framework. Using instruments such as the APS-R, GAD-7, and BAT-S, the study examines the relationship between perfectionism, academic performance, anxiety, and burnout, with a focus on the moderating effect of gender.

The findings will be used to support university programs, inform mental health interventions, and expand knowledge of the impact of perfectionism on academic mental health, particularly in East Malaysia. The study's practical implications for counselling students, academic researchers, universities, and society at large are emphasized, as is the importance of addressing mental health issues associated with perfectionism. Recognizing limitations such as limited generalizability to other regions, the study recommends that future studies broaden their scope to improve their results.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter offers an in-depth overview of previous research on the relationship between undergraduate students' mental health, academic performance and perfectionism. It provides a foundation for comprehending significant concepts, theories, and frameworks that guide the direction of the present study. This chapter summarizes empirical data to contextualize the study, identify gaps in the literature, and emphasize the need to investigate how perfectionism, academic performance, anxiety, and burnout interact in an academic environment.

2.1 Perfectionism

Perfectionism is a complex personality trait characterized by the pursuit of flawlessness, the development of exceptionally high individual standards, and a tendency toward excessively critical self-evaluations (Frost et al., 1990). While early conceptualizations of perfectionism viewed it as a unidimensional personality characteristic and significant researchers in the field have historically associated perfectionism with maladjustment, as well as with psychological and physical disorders (Koutra et al., 2023), The present research highlights its multidimensional nature, differentiating between maladaptive (self-critical, dysfunctional) and adaptive (healthy, achievement-oriented) dimensions (Stoeber, 2020). This contrast is especially relevant in educational contexts, where, depending on its dimensions, perfectionism can promote both academic achievement and psychological well-being (Fernández-García et al., 2022). Therefore, undergraduate students, who frequently encounter severe academic and social expectations, are an essential demographic for investigating how perfectionism affects mental health outcomes such as anxiety and burnout.

2.1.1 Perfectionism Classification and Characteristics

Perfectionism is a multidimensional construct that has been conceptualized using various well-known theoretical frameworks, each providing a distinct perspective on its significance and structure. Hewitt and Flett's (1991) Tripartite Model, which categorizes perfectionism into three dimensions, including self-oriented, other-oriented, and socially prescribed perfectionism, is one of the most frequently used models. Self-oriented perfectionism involves having high expectations for oneself and closely analysing and criticizing one's actions. Although this is frequently linked to aiming for success, it can turn maladaptive when combined with severe self-criticism. On the other hand, other-oriented perfectionism is characterized by strict performance evaluations, excessive expectations for significant others, and a strong emphasis on others being flawless. Socially prescribed perfectionism consists of the views of individuals or the sense that significant others have unrealistic standards for them, judge them stringently, and exert pressure on them to be flawless.

Frost et al.'s (1990) Multidimensional Model further refines the understanding of perfectionism by identifying six interrelated components: Concern over Mistakes (CM), Personal Standards (PS), Parental Expectations (PE), Parental Criticism (PC), Doubts about Actions (D), and Organization (O). Personal Standards were defined as having very high expectations and placing too much importance on them for self-evaluation. The Concern over Mistakes component was defined as negative responses to mistakes, a tendency to interpret mistakes as failure, and a tendency to think that one will lose the respect of others after failing. The Parental Expectations component was characterized by the tendency to perceive one's parents as having very high expectations and being overly critical. The Doubting of Actions component was composed of the tendency to feel that one's actions are not completed to one's satisfaction, and the final component was a preference for order and organization.

A more contemporary framework, the 2x2 model of perfectionism by Gaudreau and Thompson (2010), combines evaluative concerns (ECP) and personal standards perfectionism (PSP) to produce four subtypes: pure personal standards perfectionism (high standards without self-criticism), pure evaluative concerns perfectionism (fear of failure without high standards), non-perfectionism, and mixed perfectionism (high standards with self-criticism). This model highlights the complex nature of perfectionism by demonstrating that its psychological impacts depend on both the existence of high standards and the emotional and cognitive reactions they evoke. When combined, these theories highlight the various forms of perfectionism and offer a basis for comprehending its dual function as a motivator for success and a risk factor for mental health issues.

2.1.2 Perfectionistic Strivings and Concerns

The distinction between perfectionistic strivings and concerns is crucial for understanding their distinct psychological effects, particularly in high-stress environments like universities. Perfectionistic strivings, also known as adaptive perfectionism, are characterized by having high personal standards while remaining flexible and self-compassionate. Individuals with adaptive tendencies find fulfilment in effort and advancement rather than obsessing over perfect results (Slaney et al., 2001). This type of perfectionism is rooted in Self-Determination Theory (Ryan & Deci, 2000), and it is consistent with intrinsic motivation, where objectives are pursued independently and in alignment with personal values. According to Fernández-García et al. (2022), perfectionism can be adaptive and linked to improved academic integration in certain situations, a more positive emotional state, reduced anxiety, and higher self-esteem. For example, adaptive perfectionists appear to possess additional skills that enable them to manage their academic expectations more effectively and stay motivated to pursue their goals, resulting in a more profound sense of purpose in life and greater environmental mastery (Kruger et al., 2023).

On the other hand, perfectionistic concerns, also known as maladaptive perfectionism, are characterized by an individual's feeling of self-worth strongly linked to their accomplishment of personal objectives and a lack of satisfaction upon reaching them (Dorevitch et al., 2020). Since maladaptive perfectionists engage in cognitive distortions, including catastrophizing errors as evidence of inadequacy, this results in cycles of worry, avoidance, and emotional exhaustion, which is strongly related to cognitive behavioural theory. For instance, Begum (2023) found that students will feel anxious or apprehensive when confronted with the prospect of falling short of their own or others' expectations. This anxiety may be triggered in an academic setting by worrying about getting a poor grade, disappointing oneself or others, or encountering a setback in one's goals. Therefore, academic procrastination is one example of an avoidance behaviour that people may use to shield themselves from failure when terrified of failing. Also, perfectionistic concerns are linked to increased stress, anxiety, avoidant coping, low academic self-efficacy and self-esteem, eating disorders, depression, and suicide (Benedetto et al., 2024).

While perfectionistic strivings and concerns were once considered mutually exclusive, contemporary models, such as Gaudreau and Thompson's (2010) 2x2 model of perfectionism, highlight their coexistence. For example, a study by Fuster et al. (2025) revealed that students with mixed perfectionism (high strivings combined with self-criticism) often scored the highest on school-related stress dimensions and were the most maladaptive dimensions, while non-perfectionism (low perfectionistic strivings and perfectionistic concerns) was the most adaptive in terms of stress sources and manifestations in educational settings.

2.2 Mental Health

Mental health has evolved as an essential topic of study, particularly in its impact on numerous aspects of an individual's personal and academic life. Mental health is an integral

component of overall well-being, characterized as a positive state of emotional, psychological, and social health marked by satisfaction, resilience, and the ability to cope with life's challenges effectively (Gautam et al., 2024). It encompasses a range of psychological, emotional, and social factors that interact to influence how individuals perceive the world, navigate challenges, and maintain connections with others. The importance of mental health extends beyond personal experiences, as it is essential for creating healthy communities and providing social support (Acoba, 2024).

In recent years, mental health issues have become more common, and researchers have studied mental health extensively. It affects people of all ages, while young adults and students are especially at risk (Westberg et al., 2022). This is because social, personal, and academic demands put students in a difficult situation and increase their risk of psychological distress (Kristensen et al., 2023). These challenges often manifest in ways that directly impact students' academic performance, self-esteem, and relationships with peers and family members. Poor mental health can lead to a chain of detrimental outcomes, including trouble maintaining relationships (Simning et al., 2016), lower life satisfaction (Yildirim, 2023), and a decreased ability to manage daily routines (Li et al., 2022).

The importance of mental health is becoming more prevalent in academic settings, as students constantly encounter pressures that might harm their psychological health. Although the form and severity of mental health issues can vary, their effects are universal, and if left untreated, they may hinder students' academic abilities (Agnafors et al., 2020). According to research by Yang et al. (2022), mental health disorders such as anxiety and academic burnout are prevalent in academic environments. These issues are primarily driven by the competitive nature of educational institutions (Eleftheriades et al., 2020), the pressure to meet high academic standards (Kabir et al., 2024), and the need to strike a balance between personal and academic obligations (Munusamy et al., 2024).

2.2.1 Anxiety

Anxiety is one of the most thoroughly studied mental health issues due to its widespread impact on individuals' psychological and emotional well-being. Anxiety is a feeling an individual experiences when they anticipate danger, failure, or adverse fate and is typified by nervousness and physical signs of tension (American Psychological Association [APA], 2018). While occasional anxiety is normal, severe, ongoing, and overwhelming concern and fear can worsen and result in anxiety disorders (Mohamad et al., 2021). In the field of mental health, anxiety research is important, particularly for undergraduate student populations that are more vulnerable to mental health problems and elevated stress levels. According to Jiang et al. (2022), adolescents who perform poorly academically are vulnerable to peer pressure on campus and are more likely to experience feelings of inadequacy, anxiety, and fear in their studies. However, their academic shortcomings also expose them to criticism and rejection from their peers. This results in psychological disorders, exhibiting problematic behaviours including hyperactivity and anger, and even criminal conduct.

Mohamad et al. (2021) stated that for Malaysian university students, the academic year had the largest correlation with anxiety risk. Several factors, including variations in each course's evaluation and grading system, distinct teaching strategies employed in different academic years, and the diverse approaches adopted by each course, can contribute to the strong correlation between anxiety and the academic year. Additionally, demographics have a significant impact on how students express their anxiety. According to a study by Marzo et al. (2021) on 1544 Malaysians, 454 (80.7%) of the participants had mild to moderate anxiety symptoms. 320 (34.6%) of the individuals had an anxiety issue, while 289 (31.6%) of the students in tertiary education had mild to moderate anxiety. These findings highlight how crucial it is to take demographic variations into account when creating focused therapies to deal with anxiety in educational settings.

2.2.2 Burnout

Burnout syndrome, also known as burnout, is a condition characterized by emotional exhaustion, physical exhaustion, and psychological fatigue brought on by ongoing, unmanaged, and unresolved work-related stressors. It may also be triggered by other ongoing environmental and personal stressors, such as serious illness, family issues, or other persistent adversity (Khammissa et al., 2022). It is characterized by a feeling of weariness, frustration, and exhaustion resulting from a professional attempt that falls short of expectations (Edú-Valsania et al., 2022). Burnout in academic contexts refers to emotions of exhaustion brought on by the demands of studying, negative opinions regarding one's studies, and feelings of inadequacy as a student. In addition to impairing academic performance, burnout has a detrimental impact on students' overall mental health, leading to decreased motivation, dissatisfaction, interpersonal problems, and reduced efficacy (Uludag & Yaratana, 2010). Burnout is a significant issue for student populations due to the highly competitive and high-pressure environment that characterizes many educational institutions.

Recent research has demonstrated a substantial connection between burnout and various stressors in the academic setting. According to Gao (2023), academic stress directly affects the behavioural, emotional, and cognitive components of academic burnout, which may increase the severity of academic burnout among adolescents. Both directly and indirectly, through academic anxiety, academic stress can affect academic burnout. Learning anxiety serves as a link between academic stress and burnout since adolescents who experience higher levels of learning stress are more likely to acquire learning anxiety, which in turn causes higher levels of academic burnout. This study suggests that structural and environmental factors present in academic institutions contribute to burnout, in addition to individual predispositions.

Gender differences also have significant effects on how student manifests burnout. According to research by Javed et al. (2024), gender was a significant predictor. Female students reported lower burnout levels than male students ($B = -5.633, p = .012$), which could be attributed to improved family support. However, in a separate study conducted by Tee et al. (2022) among 378 Malaysian clinical year medical undergraduate students, female students exhibited higher levels of anxiety and burnout than male students. Additionally, it was found that men and women used different coping strategies. It has been demonstrated that women are more likely than men to employ emotion-focused coping. Women's anxiety has been positively correlated with coping mechanisms such as excessive self-blame and less positive reframing, while men did not experience this correlation. This gender difference highlights the need to address burnout in a manner that considers the distinct challenges and experiences faced by male and female students.

2.3 Previous Findings

The relationship between perfectionism, anxiety, burnout, academic performance, and gender differences has been the focus of an increasing number of studies in recent years. This section aims to summarize key findings and provide a framework for future research by examining how perfectionism impacts academic achievement and mental health outcomes, including anxiety and burnout, as well as the role that gender differences play in these relationships. The subsequent subsections critically analyse existing research to develop a thorough comprehension of these interconnected concepts.

2.3.1 Studies Related to Gender Differences in Perfectionism

Numerous studies have examined how different dimensions of perfectionism differ by gender, identifying subtle differences between male and female populations. According to a study by Musumeci et al. (2022), women exhibited higher levels of perfectionism than males.

Perfectionists were more likely to be women (72% of women compared to 65% of men). Additionally, among those identified as perfectionists, women were more likely to fall into the category of perfectionistic concerns (63% of women in this group). In contrast, males were more likely to fit the characterization of perfectionistic strivings (62% of men were perfectionists). The greater prevalence of perfectionistic concerns suggests that women have higher expectations than men and are more likely to feel as if they have failed to meet these standards.

Perfectionistic strivings are more prevalent among men because they seek to associate perfectionistic tendencies with both personal and professional development. On the other hand, perfectionistic concerns, which are often motivated by cultural and societal norms and involve excessive worry about mistakes and a fear of undesirable outcomes, are more common among women. Another study by Sand et al. (2021) found that, among a sample of young adults, perfectionism, as manifested in maladaptive evaluative concerns, but not personal standards, was considerably greater among females than males. Compared to their male counterparts, female young adults reported higher levels of self-critical tendencies, which led to increased stress and lower academic satisfaction.

Further research suggests these differences are made worse by the pressures connected to traditional gender roles. For example, according to research by Fernández et al. (2023), female students identified obstacles and challenges they believed would hinder their success, including gender stereotypes, work-life balance issues faced by women, family expectations, and the perception that they would not fit in at institutions. These external factors contribute to perfectionistic concerns, characterized by self-doubt and an excessive focus on perceived weaknesses. On the other hand, a study by Bailon (2019) suggested that men are often expected to conform to gender roles and norms in society to avoid being labelled weak or feminine. Men are always expected to be strong and to exhibit no signs of weakness. Due to social pressure

and norms that they were taught from an early age, men may have been less prone than women to have issues with their mental health, which aligns more closely with perfectionistic strivings, leading to fewer psychological repercussions.

2.3.2 Studies Related to Perfectionism and Academic Performance

Academic achievement and perfectionism are closely related, and both perfectionistic strivings and perfectionistic concerns, as well as non-perfectionism, influence students' experiences in educational settings. The connection between academic achievement and perfectionism has been examined in the past from both striving and concern dimensions. Fernández-García et al. (2022) found that students who reported high levels of perfectionism outperformed their non-perfectionist peers in academic performance. Academic perfectionism is positively correlated with academic performance and adversely correlated with several aspects of psychological well-being in both men and women.

It was discovered that perfectionistic strivings exhibit traits, including reduced academic procrastination, academic efficacy, and academic accomplishments, which contribute to excellent academic performance (Karatzanos & Zbainos, 2020). These individuals typically establish realistic objectives, adhere to routines, and confront difficulties directly, all of which can contribute to their academic success. According to a study by Endleman et al. (2021), academic success and perfectionistic strivings, the pursuit of perfection, have a positive relationship. The study presented a novel perspective by demonstrating that self-oriented perfectionism (SOP), also referred to as perfectionistic strivings, was positively predicted by grade point average (GPA) at all subsequent periods. As a result, both within and across time, increases in SOP were linked to scholastic achievement. This indicates a distinct relationship between SOP and GPA because these pathways show a consistently significant relationship even after adjusting for all other associations, including socially

prescribed perfectionism (SPP), also known as perfectionistic concerns. This supports the idea that academically successful people are more prone to develop perfectionistic strivings.

Perfectionistic concerns have been consistently linked to poorer academic outcomes. It is characterized by an overwhelming fear of failing and an excessive concern with making mistakes. According to a study by Sepiadou (2024), academic accomplishment has an adverse relationship with the maladaptive form of perfectionism, known as discrepancy-based perfectionism. Students with high degrees of perfectionistic concerns (maladaptive perfectionism) would spend less time on academic tasks to prevent errors, failure, and criticism. As a result, student achievement is negatively correlated with perfectionistic concerns. Perfectionistic concerns were acquired to avoid failure and a tendency to delay doing their work (Lubis et al., 2021). A study by Huang et al. (2023) revealed that maladaptive perfectionism significantly positively predicted academic procrastination after controlling for gender, age, home location, grade, and family structure ($c = 0.124$, $t = 3.004$, $p < 0.05$). This suggests that perfectionistic concerns were directly associated with academic procrastination.

2.3.3 Studies Related to Perfectionism and Anxiety

Studies have consistently shown that anxiety and perfectionism are significantly correlated, with different results depending on whether perfectionism is maladaptive or adaptive. This can be proven by a meta-analysis carried out by Egan et al. (2021), where perfectionism was found to be linked to anxiety and depression in the qualitative studies, and a number of these studies specifically involved young people, such as adolescents, first-year university students, and university students with a mean age of 18. These results are consistent with quantitative research among adolescents and a meta-analysis that showed a significant connection between perfectionism and anxiety or depression, but failed to narrow it down by age.

Although perfectionistic strivings have long been connected to reduced anxiety levels, a meta-analysis by Lunn et al. (2023) revealed that youth are consistent with findings in adults that correlate perfectionistic desires to symptoms of psychopathology. Anxiety symptoms showed substantial, moderate pooled relationships with perfectionistic concerns (maladaptive perfectionism) ($r = .37-.41$). On the other hand, there were significant, small correlations between anxiety symptoms and perfectionistic strivings (adaptive perfectionism) ($r = .05$). The results demonstrate the strong correlation between young people's psychopathology and perfectionistic concerns and to a lesser degree, perfectionistic strivings, anxiety, and OCD. Nevertheless, the study found no link between perfectionistic strivings (adaptive perfectionism) and symptoms of depression or test anxiety, and the link between strivings and psychopathology was not as strong as that found for maladaptive perfectionism.

Conversely, there is a clear correlation between elevated anxiety levels and maladaptive perfectionism, which includes excessive self-criticism, fear of failure, and unrealistic expectations. According to a study by Xiong et al. (2024) that included 924 university students, anxiety can be considerably positively predicted by the maladaptive perfectionism of first-year undergraduate students. The severity of the anxiety increases with the level of perfectionistic concerns. This is because maladaptive perfectionists are frequently caught in a cycle of self-doubt and rumination, which intensifies feelings of inadequacy and produces long-term stress. Additionally, compared to middle and high school children, first-year undergraduates are at a more mature stage of cognitive development, are more driven to succeed, and tend to closely correlate achievement with self-worth. They believe that the only way to gain approval and recognition from others is to perform flawlessly, yet this actually makes them feel more anxious.

2.3.4 Studies Related to Perfectionism and Burnout

Perfectionism and burnout among undergraduate students are strongly correlated, according to recent research, with a focus on the impact that perfectionistic concerns play. Perfectionistic concerns are a powerful predictor of burnout, particularly in students and people working in high-pressure settings. For instance, Malik et al. (2022) discovered that perfectionism may be a major personality trait that contributes to burnout. Maladaptive perfectionism, a different term for perfectionistic concerns, has been strongly linked to depression symptoms and negative effects. Students with high levels of perfectionistic concern (high scores in Doubts about Action, Parental Criticism, Parental Expectation, and Concern over Mistakes) were characterized by a fear of not achieving their goals. Since students are more prone to view failure as a reflection of their abilities, they are under more pressure to satisfy high self-imposed criteria when their self-worth is tied to meeting these goals. Therefore, they might work excessively, and if they are unable to, they will be extremely motivated to make up for lost time, which could result in even more burnout.

However, the relationship between burnout and perfectionistic strivings is more complex. Although adaptive perfectionists have high expectations and are frequently very driven, their emphasis on attainable objectives and problem-solving techniques often serves as a protective barrier against burnout. For instance, Nanda et al. (2022) found that aspects such as organization ($\beta = .009, p > .05$) and personal standards ($\beta = -.112, p > .05$) were not associated and did not predict academic burnout. It was demonstrated that there was no correlation between academic burnout and personal standards or organizational factors. The influence was not evident, potentially because the respondents' academic perfectionism is not always reflected in their organization and self-standards. Their study makes a distinction between perfectionistic strivings and concerns, pointing out that whereas perfectionistic concerns

greatly raise the risk of burnout, perfectionistic strivings, which are demonstrated by establishing high but reachable goals, may not.

2.4 Theoretical Framework

The present study is based on numerous related theories that provide a comprehensive understanding of the relationship between perfectionism, academic performance, mental health outcomes, specifically, anxiety and burnout, and gender as a moderator variable. To thoroughly examine the relationship between perfectionism, mental health, and academic performance among undergraduate students, this study is based on three interconnected theoretical perspectives, which include Multidimensional Perfectionism Theory (MPT), Cognitive Behavioural Theory (CBT), and Self-Determination Theory (SDT).

2.4.1 Multidimensional Perfectionism Theory (MPT)

According to Hewitt and Flett's (1991) conceptualization of the Multidimensional Perfectionism Theory, perfectionism is a multifaceted, complex construct with multiple dimensions that have varying effects on an individual's behaviour and well-being. This viewpoint has been further strengthened by research by Slaney et al. (2001), which differentiates between the adaptive and maladaptive dimensions of perfectionism. It makes a distinction between maladaptive perfectionism, which involves excessive self-criticism, an overemphasis on mistakes, and the persistent perception of a discrepancy between one's expectations and actual performance, and adaptive perfectionism, which is characterized by setting high personal standards, a strong drive for achievement, and a commitment to excellence. Maladaptive perfectionism can lead to negative psychological effects, including anxiety and burnout.

MPT has been utilized in recent empirical research to examine the impact of various aspects of perfectionism on mental health and academic achievement. For instance, Shin et al.

(2023) found that students perform better academically when they exhibit lower perfectionism. In contrast to comparisons, AHA displayed a moderate degree of perfectionism, as indicated by lower scores in socially prescribed perfectionism, which may suggest a reduced concern with perfection. "Healthy perfectionists" are defined as those who strive for excellence and have little concern about it. The drive to meet high expectations for one's performance drives those who strive for excellence. They strive for flawless performance and are often quite well-organized in achieving their goals. A significant difference between gifted performers and underachievers was the presence of positive striving perfectionism. On the other hand, self-blame, venting, and behavioural disengagement are traits of perfectionists that can result in poor academic achievement. When combined, healthy perfectionism can be an advantage for achieving better academic results.

This theory is crucial for understanding how various dimensions of perfectionism impact psychological outcomes. In contrast to maladaptive perfectionism, which is consistently linked to increased anxiety and burnout, adaptive perfectionism may be associated with positive academic behaviors and motivation. In the context of this study, MPT provides a framework for distinguishing the distinct ways in which different aspects of perfectionism impact students' academic and mental health experiences at Universiti Malaysia Sarawak (UNIMAS).

2.4.2 Cognitive Behavioural Theory (CBT)

Cognitive Behavioural Theory (CBT) is a commonly used framework that investigates the relationship between cognitive processes and emotional and behavioural consequences. Fundamentally, CBT asserts that dysfunctional or distorted thought patterns, such as all-or-nothing thinking, overgeneralization, and catastrophizing, greatly influence maladaptive actions and unpleasant emotional states. In the context of perfectionism, CBT helps explain

how maladaptive perfectionistic tendencies, such as excessive self-criticism, fear of failing, and unreasonable expectations, can trigger serious psychological problems and functional difficulties (Rajapakse, 2024).

Therefore, to lessen the negative impacts of maladaptive perfectionism, CBT-based interventions frequently concentrate on recognizing and reorganizing these negative thought processes. By encouraging more adaptable and balanced thinking, cognitive behavioural therapy (CBT) offers effective methods for stress management and mental health improvement. Steele et al. (2012) investigated the efficacy of psychoeducation and group therapy for perfectionism using the same paradigm. According to Steele's findings, perfectionism, depression, and stress all exhibited statistically significant improvements at the end of the study and the three-month follow-up. Furthermore, an analysis of CBT-based therapies (web-based, group, individual, and guided self-help) revealed that perfectionism may be considerably reduced in people with clinical disorders and that these interventions are linked to reductions in anxiety, depression, eating disorders, and obsessive-compulsive symptoms.

2.4.3 Self-Determination Theory (SDT)

According to Ryan and Deci's (2000) Self-Determination Theory (SDT), human motivation is primarily fueled by the satisfaction of three essential psychological needs: relatedness, competence, and autonomy. SDT posits that people are more likely to experience intrinsic motivation, improved well-being, and optimal functioning when these needs are met. Since it describes how meeting these requirements can impact students' engagement, learning outcomes, and overall mental health, SDT is particularly relevant in academic contexts.

SDT has been used in recent research to investigate the relationship between students' motivation, perfectionism, and mental health. For example, a study by Liu et al. (2022) discovered a strong correlation between the early satisfaction of basic psychological needs and

the development of perfectionism. A person's basic psychological requirements will be met, and high autonomy motivation will be created in the early stages if they receive high autonomy support from their parents. This further encourages the establishment of perfectionistic strivings. The fundamental psychological requirements of people will be unsatisfied if parents use psychological control, though, and control motivation will grow stronger, which gives rise to perfectionistic concerns. Perfectionistic concerns are positively associated with high control motivation, rather than autonomous motivation.

2.5 Research Gaps

2.5.1 Geographical Gap

This study specifically targets undergraduate students in UNIMAS, which mainly focuses on students in Sarawak. Research on perfectionism and mental health, particularly anxiety and burnout, has predominantly been conducted in Western countries or Peninsular Malaysia. East Malaysia remains underrepresented in psychological and academic research, leaving a gap in understanding the unique sociocultural and academic challenges faced by students in this region. East Malaysia's diverse cultural, ethnic, and linguistic composition may influence how perfectionism and mental health are experienced and expressed. The existing literature often overlooks how cultural values, such as collectivism or societal expectations unique to East Malaysia, impact perfectionism, academic performance, anxiety, and burnout.

2.6 Summary

This literature review thoroughly synthesizes research on perfectionism, mental health, previous empirical findings, and the theoretical framework supporting the study. It began by examining perfectionism as a multifaceted concept and differentiating between perfectionistic concerns (characterized by excessive self-criticism and an unending fear of failure) and strivings (defined by high personal standards and goal-directed behavior) aspects. This

sophisticated view of perfectionism lays the groundwork for investigating its intricate effects on students' mental health.

The review then turned to mental health, highlighting its importance for both academic and personal achievement. It emphasized that a range of academic, social, and personal stressors contribute to the prevalence of mental health problems, especially anxiety and burnout, among undergraduate students. It focused on how anxiety and burnout are made worse by perfectionism, particularly maladaptive ones, which have a negative impact on both academic achievement and general quality of life.

The review then took into account previous findings and current empirical research, which consistently show a strong correlation between academic performance, mental health outcomes, and perfectionism. According to these studies, perfectionistic strivings are associated with more positive academic behaviours and improved general well-being, whereas perfectionistic concerns are strongly linked to elevated levels of anxiety and burnout. Additionally, gender differences have been noted, with female students frequently reporting higher levels of worry and burnout than their male counterparts.

The three main theories, Multidimensional Perfectionism Theory (MPT), Cognitive Behavioural Theory (CBT), and Self-Determination Theory (SDT), were ultimately integrated to present the theoretical framework. While CBT sheds light on the cognitive processes that regulate the detrimental effects of perfectionism, MPT serves as the foundation for understanding the dual nature of perfectionism. SDT goes on to discuss how intrinsic drive and meeting fundamental psychological needs can operate as a buffer against the negative effects of perfectionistic concerns. When taken as a whole, these theories provide a strong framework for investigating the relationship between perfectionism and academic performance and mental health outcomes, especially for undergraduate students from UNIMAS.

CHAPTER 3

METHODOLOGY

3.0 Introduction

This chapter provides an overview of the research methodology followed in this study. It outlines the method used to study the relationship between perfectionism and mental health, particularly anxiety and burnout, as well as academic performance among undergraduate students at Universiti Malaysia Sarawak (UNIMAS). It outlines the study's research design, population, sample size, and sampling techniques. The chapter also discusses the instrumentation used to gather data, the pilot study conducted to ensure validity and reliability, the data collection procedures, and the data analysis techniques employed to address the research objectives and hypotheses.

3.1 Research Design

This study employed a quantitative research approach to investigate the relationship between perfectionism, academic performance, and mental health, with a focus on anxiety and burnout, as well as the moderating effect of gender in the relationship among undergraduate students at UNIMAS. A quantitative approach is best suited for this research, as it enables the systematic collection and analysis of numerical data to test hypotheses and determine relationships between variables. Using this method, the study aims to measure the dimension of perfectionism, evaluate mental health and academic performance outcomes, and explore the moderating role of gender in these relationships.

The study employed a survey approach, a method widely used to investigate characteristics, opinions, and behaviours in large populations. Using surveys, researchers can effectively and systematically collect data from a large number of participants. Standardized questionnaires were used in this study, namely the Burnout Assessment Tool-Student Edition (BAT-S) for

burnout, the Generalized Anxiety Disorder 7-item (GAD-7) scale for anxiety, and the Almost Perfect Scale-Revised (APS-R) for perfectionism. These assessments were chosen because of their established validity and reliability in assessing the relevant constructs, which guarantees the accuracy of the data gathered.

The respondents' self-reported responses served as a single method for data collection. This approach is suitable since it enables the researcher to gain a comprehensive understanding of the participants' mental health and perfectionist tendencies. The study employed a cross-sectional design, allowing for the simultaneous collection of information. Without the need for long-term participant tracking, this methodology was practical and allowed for investigating the status of perfectionism and its relationship with academic performance and mental health outcomes.

An organized and methodical study of the relationships among the independent variable (perfectionism), dependent variables (academic performance, anxiety, and burnout), and the moderating variable (gender) is made possible by the quantitative design and survey approach, which aligned with the study's objectives and research questions. In an academic context, this research approach guaranteed that the data gathered is appropriate for statistical analysis, enabling the researcher to make significant inferences and advance knowledge of perfectionism and its effects on mental health.

3.2 Population, Sample Size, and Sampling Technique

The population of this study consisted of undergraduate students currently enrolled at Universiti Malaysia Sarawak (UNIMAS). According to UNIMAS (2024), records from the institution indicated that there are 13,293 undergraduate students in this population. These students represented an excellent demographic for studying the relationship between perfectionism, academic performance, and mental health outcomes, including anxiety and

burnout, as they represented diverse backgrounds in an academic setting. The study emphasised academic performance and mental health issues, which are frequently prevalent among undergraduate students, leading to the selection of this population. Their struggles and experiences provided a valuable framework for understanding how perfectionism manifests and impacts their academic performance and mental health in educational settings.

To determine an appropriate sample size, a priori power analyses were conducted using G*Power 3.1.9.7 software for the primary statistical tests planned in this study, including t-tests, correlation analyses, multiple linear regression, and moderation analyses. The analyses aimed to identify the minimum number of participants required to detect a medium effect size (Cohen's $d = 0.5$ for t-tests, $r = 0.3$ for correlations, $f^2 = 0.15$ for regression) with a statistical power of 0.80 and an alpha level of 0.05.

For the independent samples t-test, which aimed to compare dimensions of perfectionism, anxiety, burnout, and academic performance scores between male and female students, the G*Power analysis indicated that a total sample size of 128 participants (64 per group) was required. This calculation was based on detecting a medium effect size ($d = 0.5$) with 80% power at a 5% significance level.

In examining the relationships between dimensions of perfectionism, anxiety, burnout, and academic performance through Pearson correlation analysis, the G*Power analysis determined that a total sample size of 84 participants is necessary to detect a medium effect size ($r = 0.3$) with 80% power at a 5% significance level.

The minimum sample size required for multiple regression analysis was established using G*Power's a priori power analysis. The study employed two predictors (perfectionistic strivings and perfectionistic concerns) to predict each of the dependent variables (academic performance, anxiety, and burnout), aiming to achieve a medium effect size ($f^2 = 0.15$) with a

5% significance level and power of 0.80. According to the analysis, each regression model required a minimum of 68 participants. A sample size of at least 68 participants was enough because the same sample can be used to evaluate all three dependent variables.

A linear multiple regression model with a fixed model and an R^2 increase served as the basis for the analysis. It had a medium effect size ($f^2 = 0.15$), a power of 0.80, and a 5% significance level. Perfectionistic strivings and concerns were the independent factors in this study, and gender served as a moderator. To check for moderating effects, the interaction term was included, which is calculated by multiplying each perfectionism dimension by gender (perfectionistic strivings $\times$ gender). There were three predictors in total, consisting of two predictors (independent variable and moderator) and one interaction term. According to the G*Power study, the moderation model required a minimum of 77 participants to identify a significant interaction effect.

Considering the highest sample size requirement among these analyses was 128 participants (for the independent samples t-test), and to account for potential data loss due to incomplete responses, the study aimed to recruit a minimum of 65 respondents from each gender group. They enabled a more accurate examination of the potential moderating effects of gender on the relationship between perfectionism, academic performance, and mental health outcomes among undergraduate students.

Participants in the study were chosen from the population using a stratified random sampling technique. This approach involved randomly selecting participants from each stratum after splitting the population into subgroups or strata based on specific traits, in this case, gender. Stratified sampling is highly effective in studies where it is crucial to ensure that subgroups are accurately represented. This study ensured a proportional representation of at least 65 male and 65 female students, thereby facilitating an in-depth examination of the

relationship between perfectionism, academic performance, and mental health outcomes, with a focus on the moderating effect of gender. Stratified sampling was chosen because it reduces sampling bias and guarantees that the sample fairly represents the population's characteristics. Additionally, this approach supported the study's objectives, particularly the need to investigate how gender differences moderate perfectionism, academic performance, and the mental health of undergraduate students.

3.3 Instrumentation

3.3.1 Instrumentation Structure

Multiple assessments comprised the instrumentation for this study, which is designed to collect relevant information that meets the study's objectives. Firstly, the informed consent form assured ethical compliance by obtaining the participants' voluntary authorization to participate in the study. A demographics form is used to gather basic information about participants, such as age, gender, academic background, and other relevant details. The Burnout Assessment Tool – Student Edition (BAT-S) measured student burnout, while the Almost Perfect Scale-Revised (APS-R) evaluated dimensions of perfectionism. Anxiety levels are also measured by the Generalized Anxiety Disorder 7-item (GAD-7) scale. Every instrument was chosen based on its validity and reliability in measuring the relevant constructs and compatibility with the study's objectives.

3.3.2 Informed Consent Form

The survey's Informed Consent Form Section is the initial step in confirming that respondents understand and agree to participate in the study. This section, displayed in the Google Form, clearly describes the research's objectives, purpose, and voluntary nature. Respondents are informed of their rights to withdraw from the study without facing any negative consequences. Additionally, the section provided guarantees of anonymity and confidentiality for the data

gathered. Before moving on to the next phase of the survey, participants must choose a response at the end of this section, such as "Yes, I agree to participate," to indicate their consent to participate.

3.3.3 Demographics

The survey's Demographics Section gathered important background information about participants. It began by asking participants about their gender, age, and race or ethnicity to ensure a diverse representation that reflects the population of UNIMAS. Participants were then asked academic-related questions to learn more about their academic performance and progress, including their faculty, year of study, latest Grade Point Average (GPA), and current Cumulative Grade Point Average (CGPA). This section provided an overview of the academic and demographic characteristics of the participants.

3.3.4 Instrumentations

Table 1

Detailed information on the Instrumentation used (APS-R, GAD-7 and BAT-S)

Instrumentation	Author and Year	Objectives	Items and Sections	Validity and Reliability
Almost Perfect Scale-Revised (APS-R)	Slaney et al. (2001)	Three distinct sections, Standards, Discrepancy, and Order, assessed several aspects of perfectionism, including perfectionistic strivings and perfectionistic concerns.	23 items in 3 different sections (Standards, Discrepancy, and Order)	High internal consistency with Cronbach's alpha values of subscale scores ranging from 0.82 to 0.92. (Slaney et al., 2001)
Burnout Assessment Tool-Student Edition (BAT-S)	Schaufeli et al. (2020)	To measure burnout levels among students by evaluating core symptoms, including exhaustion, mental distance, emotional impairment, and cognitive impairment, and focusing on the secondary complaints.	12 items for core symptoms and 10 items for secondary complaints	High internal consistency with Cronbach's alpha exceeding 0.80. (Schaufeli et al., 2020)

Generalized Anxiety Disorder 7-item (GAD-7) scale	Spitzer et al. (2006)	To assess the severity of generalized anxiety disorder symptoms.	7 items	Excellent internal consistency with Cronbach's alpha of 0.92 (Spitzer, 2006)
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3.4 Pilot Study

A pilot test was conducted to evaluate the reliability and clarity of the research instruments before the actual data collection. The pilot study aimed to ensure that the items in the questionnaire were comprehensible to the participants and that the instruments demonstrated acceptable internal consistency. This pilot testing phase was essential for identifying any ambiguity, bias, or issues in formatting or wording that could affect the quality of the data collected.

The pilot test involved a sample of 30 undergraduate students from the Year 3 Counselling program at UNIMAS who were not included in the main study. These participants completed a questionnaire that comprised demographic information and three validated instruments, such as the Almost Perfect Scale-Revised (APS-R), the Generalized Anxiety Disorder-7 (GAD-7), and the Burnout Assessment Tool – Student Version (BAT-S). The feedback from participants was also gathered to assess the ease of understanding how to complete the questionnaire.

To determine the reliability of the instruments, Cronbach's alpha coefficients were computed using SPSS Version 26. The results demonstrated high internal consistency for all scales.

Table 2*Reliability Statistics of Almost Perfect Scale – Revised (APS-R)*

<i>Reliability Statistics</i>	
Cronbach's Alpha	N of Items
.934	23

The internal consistency reliability of the Almost Perfect Scale–Revised (APS-R) was assessed using Cronbach's alpha. The 23 items of the APS-R demonstrated a high level of internal consistency, with a Cronbach's alpha value of 0.934. Therefore, the APS-R proved to be highly reliable for use in the main study.

Table 3*Reliability Statistics of Generalized Anxiety Disorder 7-item (GAD-7) scale*

<i>Reliability Statistics</i>	
Cronbach's Alpha	N of Items
.929	7

The internal consistency reliability of the Generalised Anxiety Disorder 7-item (GAD-7) scale was assessed using Cronbach's alpha. The seven items of the GAD-7 demonstrated a high level of internal consistency, with a Cronbach's alpha value of 0.929. Therefore, the GAD-7 was highly reliable for use in the main study.

Table 4*Reliability Statistics of Burnout Assessment Tool – Student Edition (BAT-S) Core Symptoms*

<i>Reliability Statistics</i>	
Cronbach's Alpha	N of Items
.905	12

Table 5

Reliability Statistics of Burnout Assessment Tool – Student Edition (BAT-S) Secondary Complaints

<i>Reliability Statistics</i>	
Cronbach's Alpha	N of Items
.875	10

The internal consistency reliability of the Burnout Assessment Tool – Student Edition was assessed using Cronbach’s alpha. Twelve items of Core Symptoms and 10 items of Secondary Complaints demonstrated a high level of internal consistency, with a Cronbach’s alpha value of 0.905 and 0.875, respectively. Therefore, the BAT-S was deemed reliable for use in the main study.

These values exceed the acceptable threshold of 0.70, indicating that the instruments used in this study are reliable and appropriate for the target population. Although it exceeds 0.90, which may indicate redundancy of the items, since the instruments used are well-developed, no item needs to be deleted. Based on the pilot results, no major revisions were necessary, and the questionnaire was suitable for large-scale use.

3.5 Data Collection Procedures

The study's data collection methods were designed to ensure the methodical and ethical collection of relevant information, thereby meeting the study's objectives. Several crucial steps were involved in the data collection process.

Firstly, an online consent form was inserted within the Google Form survey to obtain informed consent from each participant. The consent form stated the study's objectives, participants' rights, and the confidentiality of their responses. The survey could only proceed with participants who gave their prior permission.

Demographic information was then gathered to accurately understand the individuals' backgrounds. Age, gender, race, ethnicity, faculty, year of study, latest GPA, CGPA, and university entry-level were among the data collected to contextualise the analysis and consider possible differences across subgroups.

Three reliable instruments, the Generalized Anxiety Disorder 7-item (GAD-7) scale, the Burnout Assessment Tool-Student Edition (BAT-S), and the Almost Perfect Scale-Revised (APS-R), were used for the primary data collection. To ensure that participants could efficiently complete the survey online, these assessments were inserted into the Google Form, and clear instructions were given for each instrument, which was displayed in its assigned section.

The survey was made available electronically using social media and university networks to reach the targeted demographic of Universiti Malaysia Sarawak (UNIMAS) undergraduate students. The study employed a stratified random sample technique to ensure representation across relevant subgroups, specifically gender. Additionally, follow-up reminders were sent regularly to promote participation and achieve the necessary sample size.

Lastly, the survey's data were arranged for analysis and safely stored. Anonymization of responses was one of the steps used to ensure data security and integrity. These methods established the foundation for precise and ethical assessment in subsequent stages of the study.

3.6 Data Analysis Procedures

The study's data analysis methods were designed to address the objectives and hypotheses of the study systematically. The gathered data was first prepared and cleansed to ensure accuracy and completeness. Before starting the analysis, data cleaning was performed to ensure the accuracy and consistency of the data collection. To preserve data integrity, the procedure began by identifying incomplete responses, such as missing values in key questionnaire sections, and excluding cases with significant errors. Also, responses that displayed

inconsistent patterns, like repeating or straight-lining, were thoroughly examined and eliminated if they were unreliable.

The data analysis procedures for this study utilized Statistical Package of Social Sciences (SPSS) Version 26 to perform descriptive and inferential statistical analyses in line with the research objectives and hypotheses. Descriptive statistics such as means, standard deviations, and frequencies were computed for all variables to summarize and provide an overview of the demographic data, including dimensions of perfectionism, anxiety, burnout, age, gender, race, faculty, year of study and CGPA. These statistics offered insights into the characteristics of the sample population and ensured a comprehensive understanding of the respondents' profiles.

Internal consistency was evaluated using Cronbach's alpha for the Generalized Anxiety Disorder 7-item (GAD-7) scale, Burnout Assessment Tool-Student Edition (BAT-S), and Almost Perfect Scale-Revised (APS-R) to guarantee the reliability of the instruments utilized. This stage verified the measures' accuracy and dependability in assessing respondents' anxiety, burnout, and perfectionism.

Specific data analysis techniques were used to test the study's hypotheses, ensuring a thorough understanding of the objectives. The gender differences between male and female undergraduate students regarding perfectionism dimensions, anxiety, and burnout were analysed using an independent samples t-test. To explore gender as a potential moderating variable in this study, this analysis determined whether gender significantly impacts different dimensions of perfectionism, academic performance, and mental health outcomes.

Correlation analysis was then conducted to determine the strength and direction of relationships between perfectionism dimensions (strivings and concerns), anxiety, burnout, and academic performance. It offered information on whether these variables positively or negatively affect each other.

Next, regression analysis aimed to determine which dimensions of perfectionism significantly impact academic performance, anxiety, and burnout. By determining the dimensions of perfectionism that have the most significant impact on these levels, this analysis method determined how well the two dimensions predict outcomes linked to mental health and academic performance. It also provided valuable new insights into how perfectionism influenced mental health and academic performance.

Lastly, a moderation analysis was performed using SPSS with the PROCESS macro to determine whether gender moderates the relationships among dimensions of perfectionism, academic performance, and mental health outcomes. Interaction terms will be developed to investigate the moderating effect of gender differences in the relationship between perfectionism, academic performance, and mental health. These analyses would thoroughly understand the moderating effect of gender on the relationship between perfectionism, academic performance, and mental health outcomes, particularly anxiety and burnout.

3.7 Summary

This chapter thoroughly explained the research methodologies used to investigate the relationship between perfectionism, academic performance, and mental health outcomes, particularly anxiety and burnout among undergraduate students at Universiti Malaysia Sarawak (UNIMAS). A quantitative research approach was used in the study, which offered a concrete and methodical framework for analyzing numerical data and determining relationships between variables. The study employed a survey approach, utilizing validated and standardized tools such as the Generalized Anxiety Disorder-7 (GAD-7) to measure anxiety, the Burnout Assessment Tool-Student Edition (BAT-S) to measure burnout, and the Almost Perfect Scale-Revised (APS-R) to measure dimensions of perfectionism. These instruments were chosen because they were reliable and valid for the study's constructs.

The G*Power analysis was used to determine an appropriate sample size of minimum 128 participants, with the target population being undergraduate students enrolled at UNIMAS. The researcher investigated gender differences in perfectionism and its moderating effects on academic performance and mental health outcomes using a stratified random sampling technique to guarantee proportionate representation across genders. This approach reduced sample bias and guarantees that the study results may be applied to the larger UNIMAS undergraduate population.

The study's instruments included an informed consent form, a demographic section, and three standardized psychological assessments. The informed consent form guaranteed ethical compliance by giving participants complete details about the study's objectives, their rights, and data confidentiality. Important demographic information, including age, gender, race, faculty, year of study, GPA, and CGPA, are gathered in the demographics section to put the analysis in perspective and consider subgroup variations. Prior research has shown that the APS-R, BAT-S, and GAD-7 instruments have excellent internal consistency and were used to measure perfectionism, burnout, and anxiety.

Google Forms was used for the online data collection process, which made it easier to distribute the survey to the intended demographic through university networks and social media. The approach involved obtaining informed consent, gathering demographic information, and administering standardized instruments. Follow-up reminders were given to guarantee that the sample size requirements were fulfilled and to promote participation. The confidentiality and anonymity of participant responses were among the ethical principles strictly adhered to during the data collection process.

The pilot study functioned as an initial stage to verify the instruments used for surveys and detect potential issues in the data-gathering process. A small sample of undergraduate students

was employed to improve the methodology and guarantee the validity and reliability of the instruments in the study context. Incomplete or dishonest responses were eliminated to preserve data integrity, and the data gathered from the primary study was cleaned and ready for analysis to guarantee accuracy and consistency.

The data analysis methods used for analyzing the research objectives and hypotheses are also described in this chapter. Demographics and variables, including burnout, anxiety, and perfectionism, have been computed using descriptive statistics. Regression analysis, independent t-tests, correlation analysis, and moderation analysis, using SPSS's PROCESS macro, were among the inferential statistical methods employed to investigate the relationships between the variables. The studies aimed to determine the direction and level of these relationships, look at gender differences, and identify the moderating effect of gender on outcomes related to perfectionism, mental health, and academic performance.

This chapter offered a thorough summary of the research methodologies, highlighting its methodical and ethical approach to collecting and analyzing data. The study intended to provide reliable and significant insights into how perfectionism affects academic performance and mental health among UNIMAS undergraduate students while highlighting the moderating role of gender using a solid quantitative design, validated instruments, and suitable sampling techniques. This methodology guaranteed the reliability and integrity of the results, advancing knowledge of perfectionism and its effects on students' mental and academic health.

CHAPTER 4

FINDINGS AND DISCUSSION

4.0 Introduction

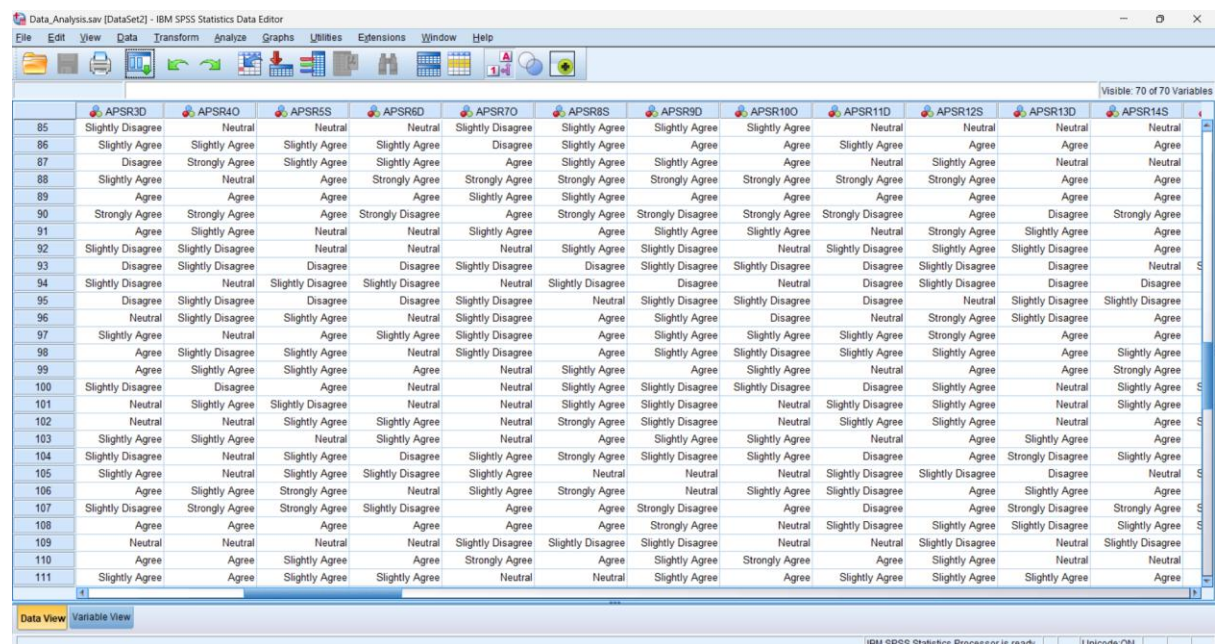
This chapter presents the findings from data analysis collected from 137 undergraduate students ($N=137$). The study utilized three standardized instruments, including the Almost Perfect Scale–Revised (APS-R) to assess perfectionism, the Generalized Anxiety Disorder 7-item (GAD-7) scale to measure anxiety, and the Burnout Assessment Tool – Student Version (BAT-S) to evaluate burnout. Descriptive statistics are first reported to summarize participants' demographic characteristics and overall scores on the measured variables. Inferential statistics, including correlation analysis, independent samples t-tests, regression, and moderation analysis, are then used to examine the relationships between perfectionism and mental health outcomes, as well as the moderating role of gender.

4.1 Reliability after Refinement

4.1.1 Data Screening and Cleaning

The dataset was carefully reviewed to ensure accuracy and reliability prior to data analysis. Responses were checked for inconsistencies and duplication during the data cleaning process. Figure 2 indicates that one repetitive response, number 85, was found and considered invalid since all the answers were the same for all variables and exhibited no variation. The respondent provided consistent answers, selecting "Strongly Agree" for every item in the APS-R, "Never" for the BAT-S, and "Not at All" for the GAD-7. Since this pattern does not represent a realistic variation in perfectionism, anxiety, or burnout, it indicates a lack of engagement. To preserve the data's integrity and avoid bias in statistical studies, this duplicate data was removed from the dataset. Following removal, 137 responses made up the final sample.

Data before Data Cleaning



4.1.2 Reliability Statistics

A reliability analysis was conducted after the data were cleaned to evaluate the internal consistency of the instruments used in this study. All the instruments Cronbach's alpha coefficients, including APS-R, GAD-7, and BAT-S, were found to be above the acceptable cutoff of 0.70, indicating strong internal consistency. This demonstrates the consistency and dependability of the instrumentation utilized for the statistical analysis.

Table 6

Reliability Statistics of Almost Perfect Scale – Revised (APS-R)

<i>Reliability Statistics</i>	
Cronbach's Alpha	N of Items
.946	23

The internal consistency reliability of the Almost Perfect Scale–Revised (APS-R) was assessed using Cronbach's alpha. The 23 items of the APS-R demonstrated a high level of internal consistency, with a Cronbach's alpha value of 0.946. Therefore, the APS-R proved to be highly reliable for use in the main study.

Table 7

Reliability Statistics of Generalized Anxiety Disorder 7-item (GAD-7) scale

<i>Reliability Statistics</i>	
Cronbach's Alpha	N of Items
.880	7

The internal consistency reliability of the Generalized Anxiety Disorder 7-item (GAD-7) scale was assessed using Cronbach's alpha. The seven items of the GAD-7 demonstrated a high level

of internal consistency, with a Cronbach's alpha value of 0.880. Therefore, the GAD-7 proved to be highly reliable for use in the main study.

Table 8

Reliability Statistics of Burnout Assessment Tool – Student Edition (BAT-S) Core Symptoms.

<i>Reliability Statistics</i>	
Cronbach's Alpha	N of Items
.932	12

Table 9

Reliability Statistics of Burnout Assessment Tool – Student Edition (BAT-S) Secondary Complaints

<i>Reliability Statistics</i>	
Cronbach's Alpha	N of Items
.886	10

The internal consistency reliability of the Burnout Assessment Tool – Student Edition (BAT-S) was assessed using Cronbach's alpha. Twelve items of Core Symptoms and 10 items of Secondary Complaints demonstrated a high level of internal consistency, with a Cronbach's alpha value of 0.932 and 0.886, respectively. Therefore, the BAT-S was deemed reliable for use in the main study.

In summary, both the APS-R, GAD-7, and BAT-S demonstrate excellent internal consistency and reliability, confirming their suitability for use in research and practical applications following refinement.

4.2 Demographics

The demographic information for undergraduate students is presented in this section. Gender, race, age, year of study, faculty, and CGPA are among the demographic variables that are reported. These variables enhance the analysis of the study's findings and offer context for comprehending the respondents' backgrounds. Each demographic variable is reported in detail in the subsections below.

4.2.1 Gender

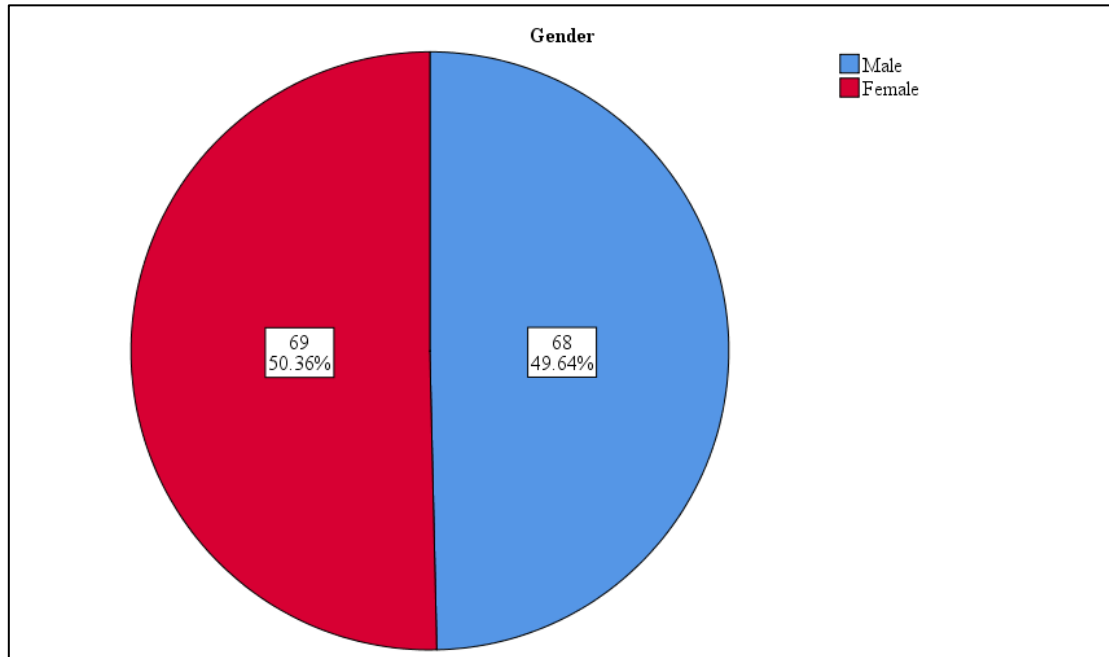
Table 10

Frequency and Percentage of Respondents' Gender

<i>Gender</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	68	49.6	49.6	49.6
	Female	69	50.4	50.4	100.0
	Total	137	100.0	100.0	

Figure 4

Pie Chart of Respondents' Gender



Note. Number of males = 68, Number of females = 69, total $N = 137$.

Out of the total 137 undergraduate students who participated in this study, 68 (49.6%) are males, while 69 (50.4%) are females. This nearly equal gender distribution provided a balanced perspective for examining gender differences and the relationship of perfectionism, academic performance, anxiety, and burnout. Moderation analysis and gender-based comparisons in the following sections are more reliable when both genders are represented in a balanced manner.

4.2.2 Race

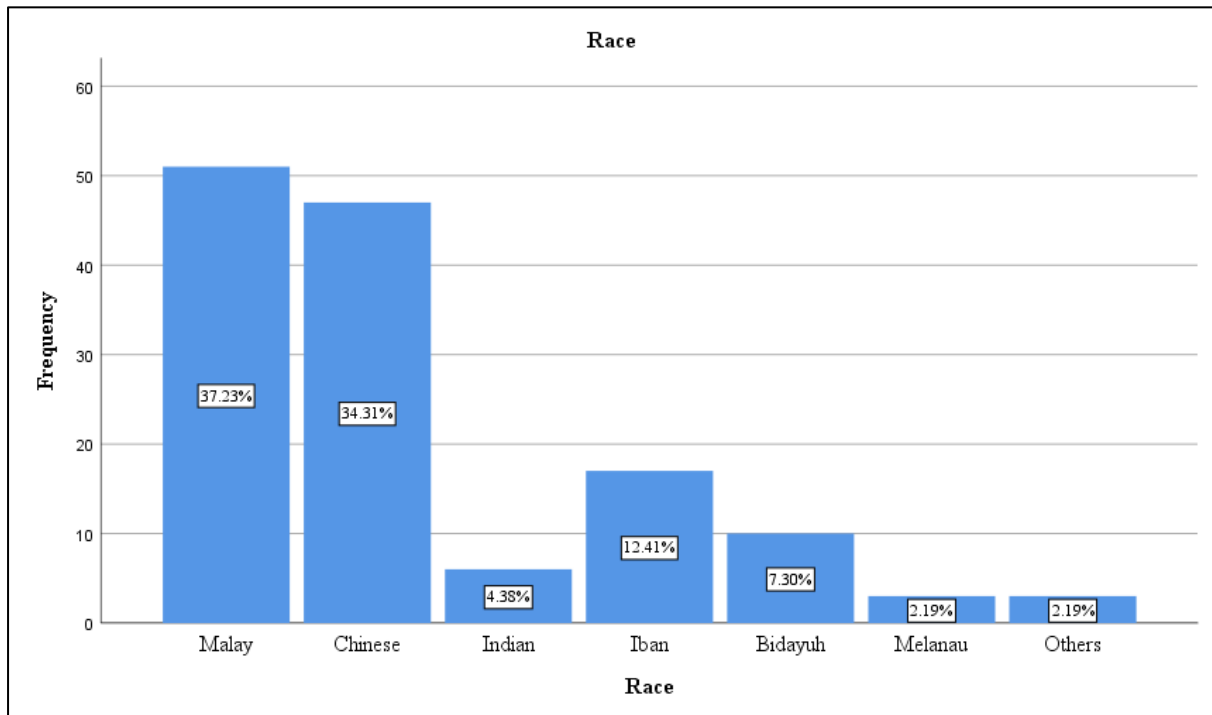
Table 11

Frequency and Percentage of Respondents' Race

<i>Race</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	51	37.2	37.2	37.2
	Chinese	47	34.3	34.3	71.5
	Indian	6	4.4	4.4	75.9
	Iban	17	12.4	12.4	88.3
	Bidayuh	10	7.3	7.3	95.6
	Melanau	3	2.2	2.2	97.8
	Others	3	2.2	2.2	100.0
	Total	137	100.0	100.0	

Figure 5

Bar chart of Respondents' Race



Note. Race distribution among respondents ($N = 137$).

In terms of racial background, the study sample consisted of a diverse group of undergraduate students. Out of 137 participants, 51 (37.2%) respondents are Malay, 47 (34.3%) are Chinese, 6 (4.4%) are Indian, 17 (12.4%) are Iban, 10 (7.3%) are Bidayuh, 3 (2.2%) are Melanau, and 3 (2.2%) are belonging to other ethnic groups, including Kadazan Dusun and Javanese. This diversity allows for a more comprehensive understanding of perfectionism and mental health variables across different cultural backgrounds in the Malaysian context.

4.2.3 Age

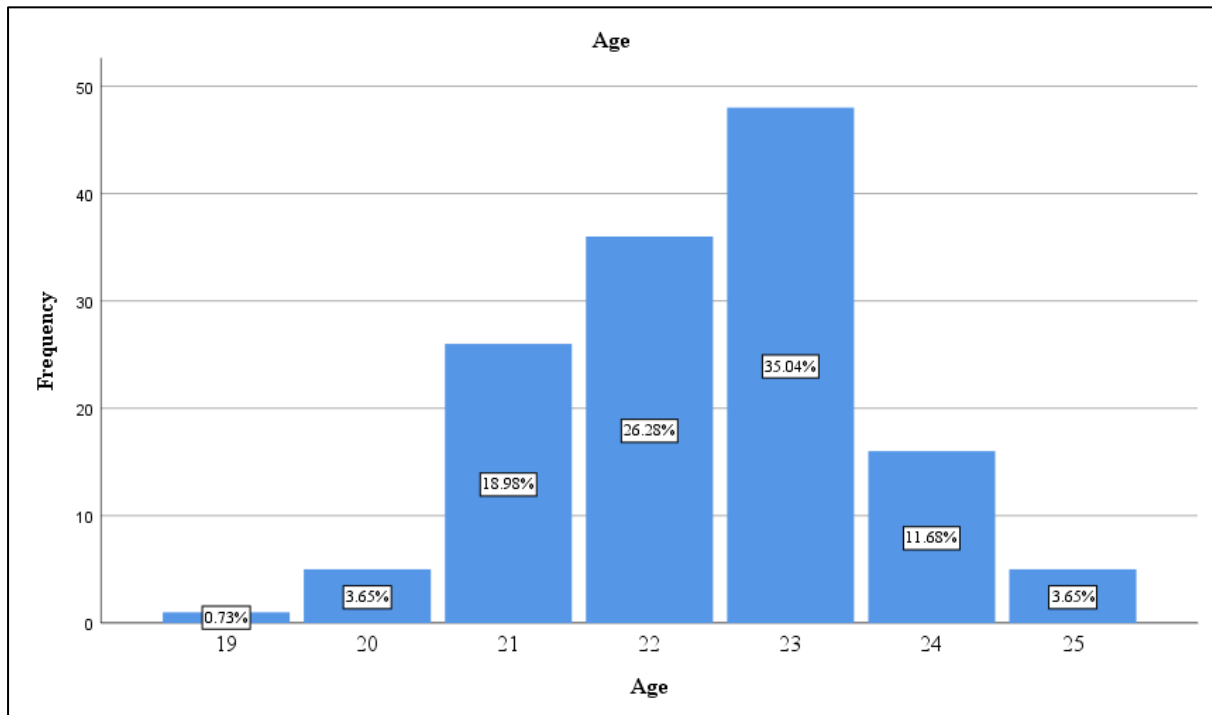
Table 12

Frequency and Percentage of Respondents' Age

<i>Age</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19	1	.7	.7	.7
	20	5	3.6	3.6	4.4
	21	26	19.0	19.0	23.4
	22	36	26.3	26.3	49.6
	23	48	35.0	35.0	84.7
	24	16	11.7	11.7	96.4
	25	5	3.6	3.6	100.0
	Total	137	100.0	100.0	

Figure 6

Bar chart of Respondents' Age



Note. Age distribution among respondents ($N = 137$).

The age of respondents ranged from 19 to 25 years old. Most respondents were 23 years old (35.0%), followed by those aged 22 (26.3%) and 21 (19.0%). Additionally, 16 respondents (11.7%) were 24 years old, 5 respondents each (3.6%) were aged 20 and 25, and only 1 respondent (0.7%) was 19 years old. This distribution exhibited a normal distribution, reflecting a typical undergraduate age range, which supports the study's focus on university students.

4.2.4 Faculty

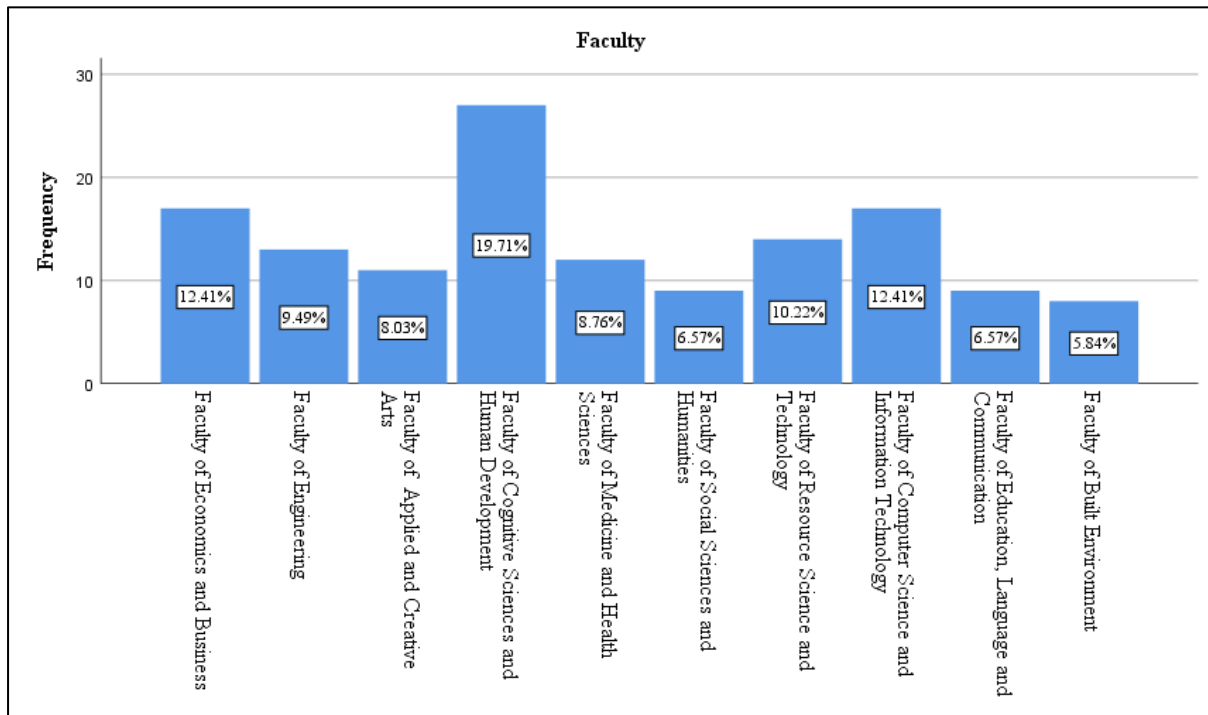
Table 13

Frequency and Percentage of Respondents' Faculty

<i>Faculty</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Faculty of Economics and Business	17	12.4	12.4	12.4
	Faculty of Engineering	13	9.5	9.5	21.9
	Faculty of Applied and Creative Arts	11	8.0	8.0	29.9
	Faculty of Cognitive Sciences and Human Development	27	19.7	19.7	49.6
	Faculty of Medicine and Health Sciences	12	8.8	8.8	58.4
	Faculty of Social Sciences and Humanities	9	6.6	6.6	65.0
	Faculty of Resource Science and Technology	14	10.2	10.2	75.2
	Faculty of Computer Science and Information Technology	17	12.4	12.4	87.6
	Faculty of Education, Language and Communication	9	6.6	6.6	94.2
	Faculty of Built Environment	8	5.8	5.8	100.0
	Total	137	100.0	100.0	

Figure 7

Bar chart of Respondents' Faculty



Note. Faculty distribution among respondents ($N = 137$).

A total of 137 undergraduate students from various faculties participated in this study. The highest number of respondents came from the Faculty of Cognitive Sciences and Human Development ($n = 27$), followed by the Faculty of Economics and Business and the Faculty of Computer Science and Information Technology, each with 17 respondents (12.4%). The Faculty of Resource Science and Technology contributed 14 respondents (10.2%), while the Faculty of Engineering had 13 respondents (9.5%), and the Faculty of Medicine and Health Sciences had 12 respondents (8.8%). The Faculty of Applied and Creative Arts had 11 respondents (8.0%). Fewer respondents were from the Faculty of Social Sciences and Humanities and the Faculty of Education, Language and Communication, each with 9

respondents (6.6%), and the Faculty of Built Environment with 8 respondents (5.8%). This distribution reflects a diverse representation of disciplines across the university.

4.2.5 Year of Study

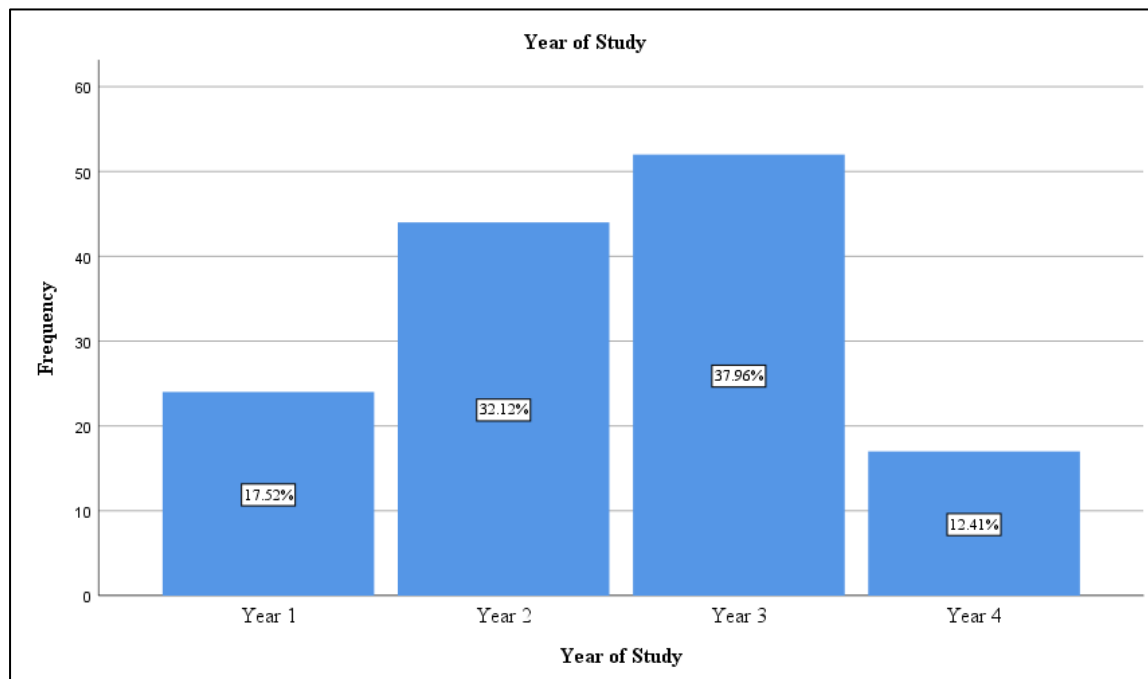
Table 14

Frequency and Percentage of Respondents' Year of Study

<i>Year of Study</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Year 1	24	17.5	17.5	17.5
	Year 2	44	32.1	32.1	49.6
	Year 3	52	38.0	38.0	87.6
	Year 4	17	12.4	12.4	100.0
	Total	137	100.0	100.0	

Figure 8

Bar chart of Respondents' Year of Study



Note. Year of Study distribution among respondents ($N = 137$).

Respondents in this study were undergraduate students from various years of study. The largest group of respondents was Year 3 students ($n = 52$), followed by Year 2 students ($n = 44$). Year 1 students comprised 17.5% of the sample ($n = 24$), while Year 4 students formed the smallest group at 12.4% ($n = 17$). This distribution reflects a higher representation of students in the middle years of their undergraduate programs.

4.2.6 CGPA

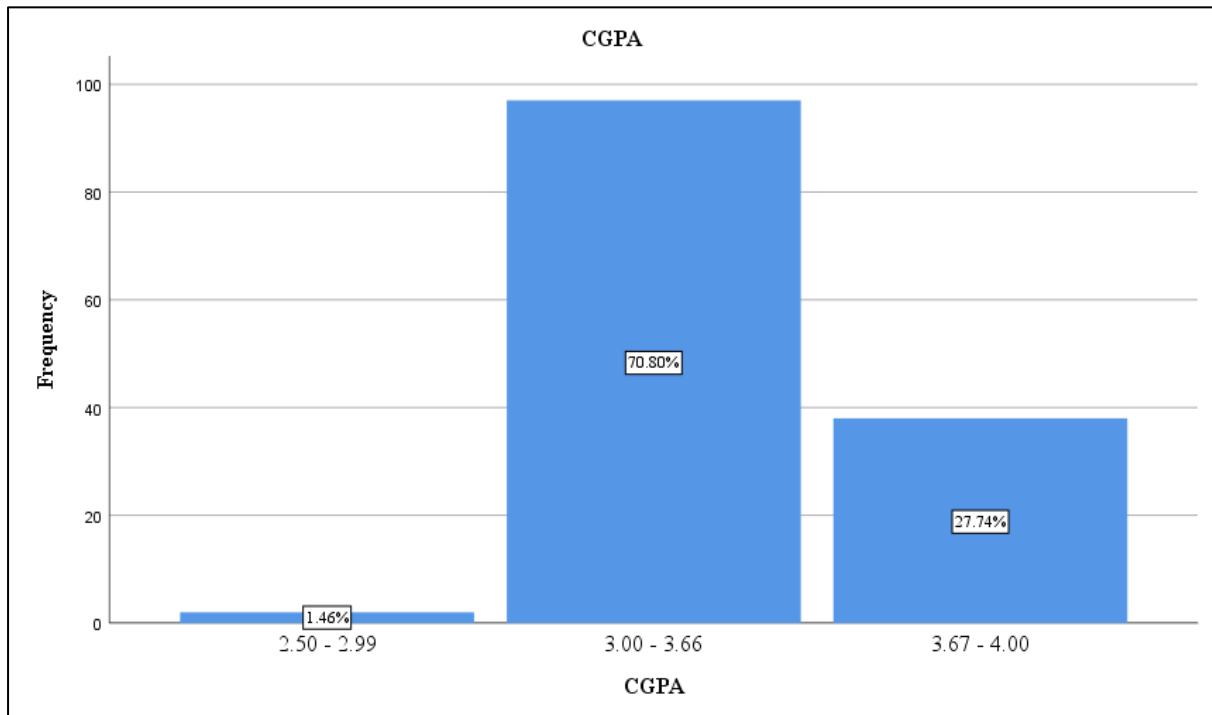
Table 15

Frequency and Percentage of Respondents' CGPAs

<i>CGPA</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.50 - 2.99	2	1.5	1.5	1.5
	3.00 - 3.66	97	70.8	70.8	72.3
	3.67 - 4.00	38	27.7	27.7	100.0
	Total	137	100.0	100.0	

Figure 9

Bar chart of Respondents' CGPA



Note. Distribution of respondents' CGPA (N = 137).

The cumulative grade point average (CGPA) of the respondents ranged from 2.50 to 4.00. 97 respondents (70.8%) reported a CGPA between 3.00 and 3.66, while 38 respondents (27.7%) had a CGPA in the 3.67 to 4.00 range. Only 2 respondents (1.5%) reported a CGPA between 2.50 and 2.99. This distribution indicates that most of the respondents achieved moderate to high academic performance.

4.2.7 Type of Perfectionism

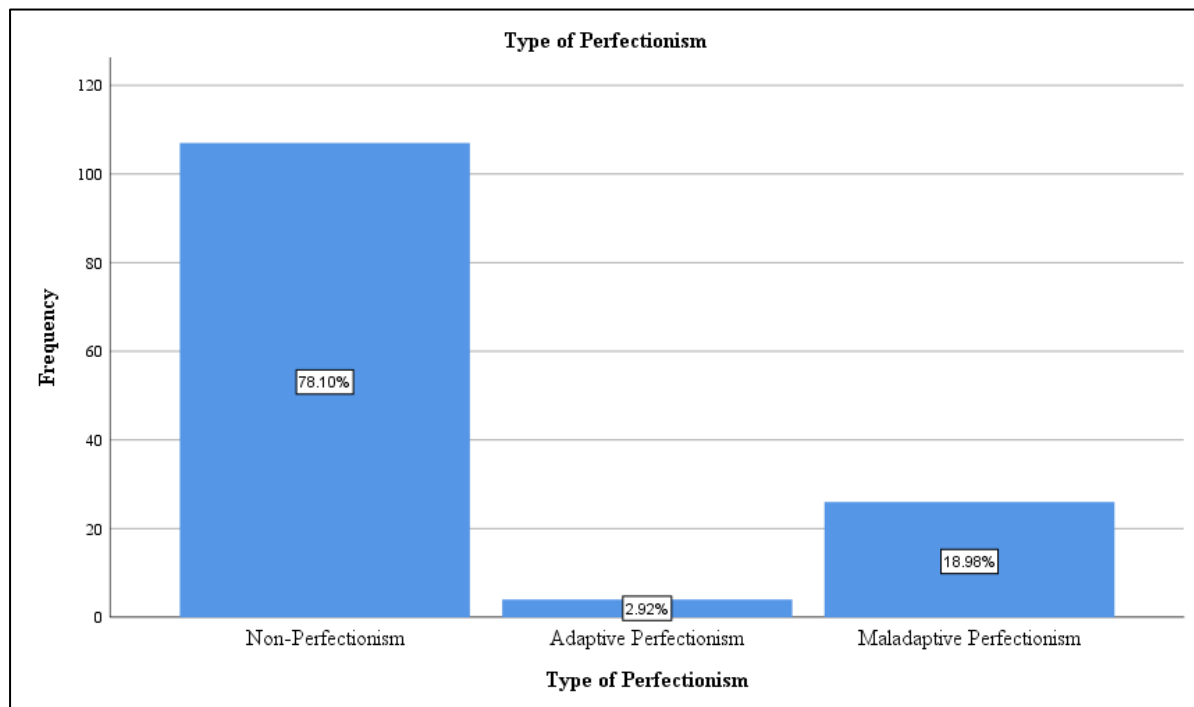
Table 16

Frequency and Percentage of Respondents' Type of Perfectionism

<i>Type of Perfectionism</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non-Perfectionism	107	78.1	78.1	78.1
	Adaptive Perfectionism	4	2.9	2.9	81.0
	Maladaptive Perfectionism	26	19.0	19.0	100.0
	Total	137	100.0	100.0	

Figure 10

Bar Chart of Respondents' Type of Perfectionism



Note. Year of Study distribution among respondents ($N = 137$).

The respondents ($N = 137$) were categorised into three types of perfectionism (non-perfectionism, adaptive perfectionism and maladaptive perfectionism) based on their scores on

Standards, Order and Discrepancy dimensions. Most students were classified as non-perfectionists ($n = 107$, 78.1%). 26 respondents (19.0%) exhibited maladaptive perfectionism, while only 4 respondents (2.9%) were identified as adaptive perfectionists. These results indicate that most participants in the sample did not demonstrate high levels of perfectionistic traits. The proportion of maladaptive perfectionists is much higher than that of adaptive perfectionists, indicating that among those who exhibit perfectionism, the maladaptive dimensions are more prevalent in the population.

4.3 Descriptive Statistics

The levels of the key variables in this study, including perfectionistic strivings, concerns, anxiety, and burnout, were studied with descriptive statistics. Measures of central tendency and dispersion, such as the mean and standard deviation, were used to analyze the levels of the respondents. These descriptive results present an overview of undergraduate students' scores on each variable.

4.3.1 Overall Mean and Standard Deviation

Research Objective 1: To identify the levels of perfectionism (strivings and concerns), anxiety, and burnout among undergraduate students.

Table 17

Descriptive Statistics for Perfectionism, Anxiety, and Burnout Among Undergraduate Students

<i>Descriptive Statistics</i>					
	N	Minimum	Maximum	Mean	Std. Deviation
Strivings	137	1.86	7.00	4.9729	1.08597
Concerns	137	1.92	6.92	4.1959	1.26060
Anxiety	137	.00	2.71	1.1689	.70097
Core Symptoms	137	1.00	4.83	2.6904	.85683
Secondary Complaints	137	1.00	4.30	2.3745	.76534
Valid N (listwise)	137				

Note. Perfectionistic Strivings and Perfectionistic Concerns were measured using APS-R. Anxiety was measured using the GAD-7, and Burnout was measured using the BAT-S. Higher scores indicate greater levels of the respective constructs.

Descriptive statistics were computed to investigate the levels of perfectionistic strivings, perfectionistic concerns, anxiety, and burnout among undergraduate students. The results showed that respondents reported a relatively high level of perfectionistic strivings ($M = 4.97$, $SD = 1.09$), suggesting that many students tend to set high personal standards and strive for excellence. However, the mean score for perfectionistic concerns was moderately high ($M = 4.20$, $SD = 1.26$), indicating that self-criticism and perceived failure to meet standards are other issues that undergraduate students face.

In terms of anxiety, the mean score was 1.17 ($SD = 0.70$), which reflects a generally low level of anxiety symptoms among respondents, based on the GAD-7 scale. For burnout, the mean score for core symptoms was 2.69 ($SD = 0.86$), while secondary complaints had a

slightly lower mean of 2.37 ($SD = 0.77$). These findings suggest that although the students do not exhibit high levels of anxiety, they may experience high levels of burnout-related symptoms such as fatigue, emotional exhaustion, and cognitive impairment. Overall, the descriptive statistics provide an initial overview of the psychological well-being and perfectionistic tendencies of the sample, serving as a foundation for further inferential analysis.

4.4 Inferential Statistics

Inferential statistics were employed to investigate the relationships among perfectionism, burnout, anxiety, and academic achievement. Gender differences were investigated using an independent samples t-test, and correlations between variables were found using Pearson correlation. The predictive ability of perfectionism for each dependent variable (academic performance, anxiety, and burnout) was evaluated using multiple regression analysis, and the potential influence of gender on these relationships was investigated through moderation analysis. These findings provide insight into the relationship between students' academic performance and mental health.

4.4.1 Test of Normality

Before conducting inferential analysis, it is essential to determine whether the data satisfies the assumption of normality. Regression analysis, t-tests, and Pearson correlation are examples of inferential statistical tests based on the assumption that the variables are normally distributed. Violations of this assumption can result in biased estimations, decreased statistical power, and incorrect outcomes. Therefore, to determine if the distribution of the study variables followed a normal distribution, a test of normality was carried out. The data's normality was assessed using both statistical (Shapiro-Wilk test) and graphical (Q-Q plots) techniques.

Table 18*Test of Normality for Perfectionism, Academic Performance, Anxiety, and Burnout*

Tests of Normality

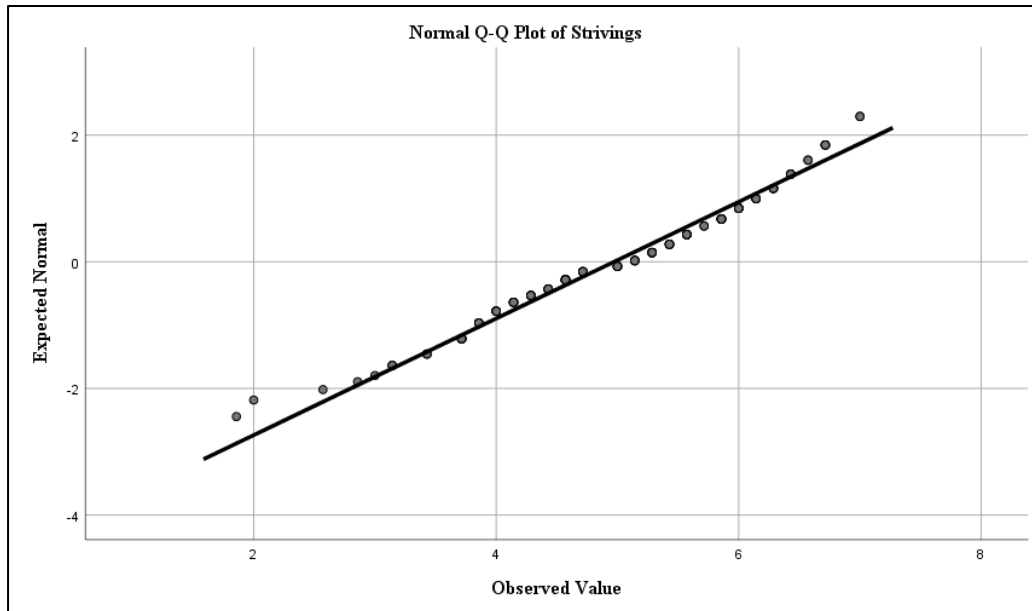
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Strivings	.088	137	.012	.975	137	.014
Concerns	.087	137	.012	.967	137	.002
CGPA	.078	137	.038	.982	137	.062
Anxiety	.106	137	.001	.961	137	.001
Core Symptoms	.082	137	.025	.978	137	.024
Secondary Complaints	.129	137	.000	.966	137	.002

a. Lilliefors Significance Correction

A Shapiro–Wilk test was conducted to examine the assumption of normality for each continuous variable. The results indicated that CGPA was normally distributed, $W(137) = .982$, $p = .062$. However, all other variables, including Strivings, Concerns, Anxiety, Core Symptoms, and Secondary Complaints deviated significantly from normality ($p < .05$), with Shapiro–Wilk statistics ranging from .961 to .978. These results suggest that, based on the statistical test alone, the assumption of normality may not have been fully satisfied for most variables. Therefore, Q-Q plots were computed to observe the normality of the variables.

Figure 11

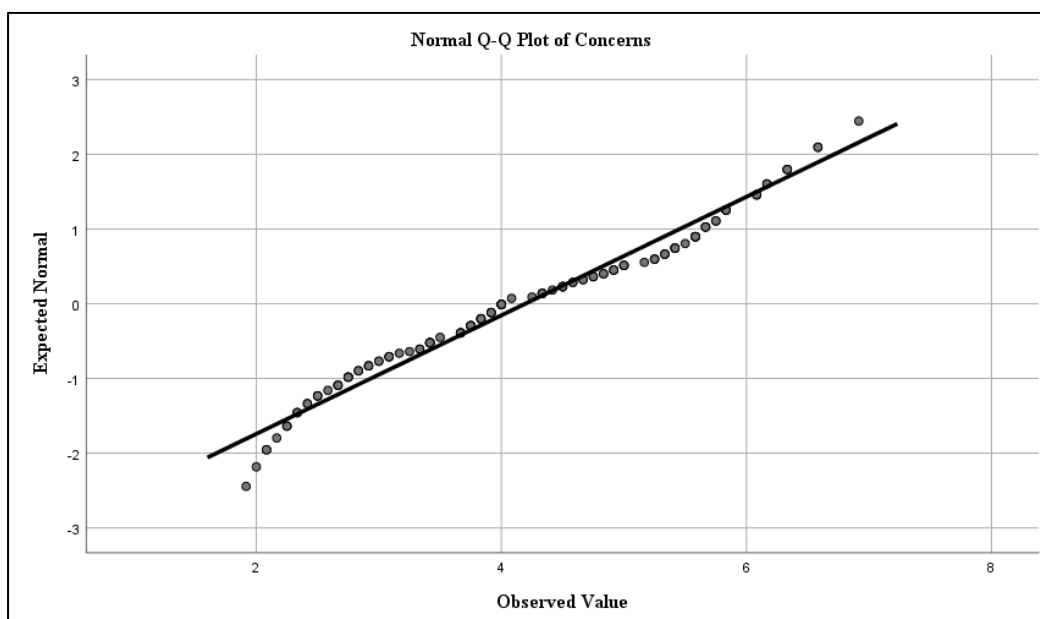
Normal Q-Q Plot for Perfectionistic Strivings



Visual inspection of the normal Q–Q plot for the Strivings variable suggests that the data are approximately normally distributed, with only minor deviations in the tails.

Figure 12

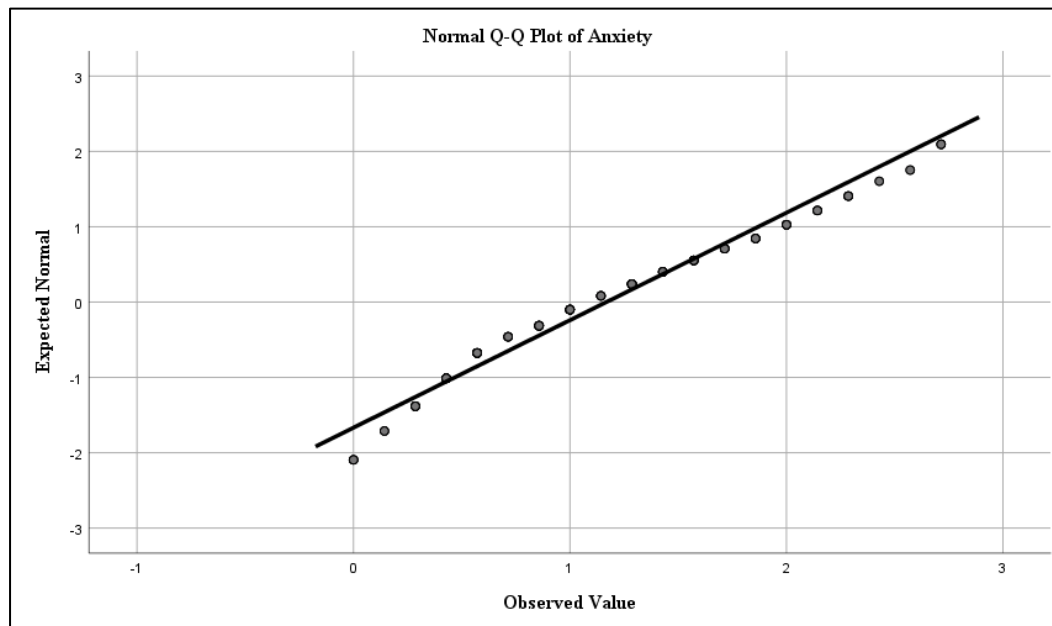
Normal Q-Q Plot for Perfectionistic Concerns



Visual inspection of the normal Q–Q plot for the Concerns variable suggests that the data are approximately normally distributed, with only minor deviations in the tails.

Figure 13

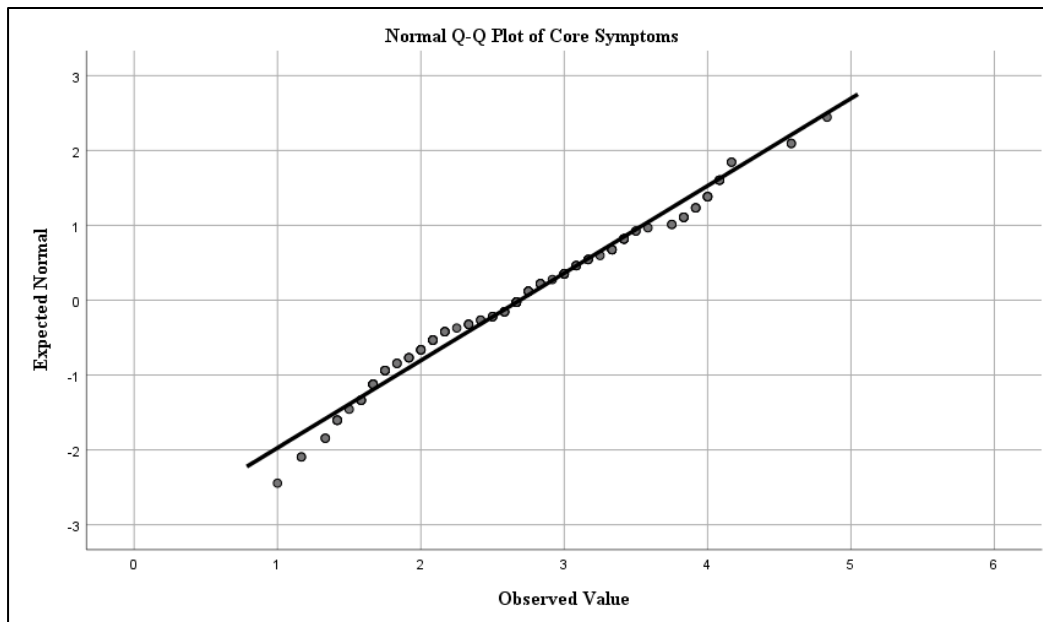
Normal Q-Q Plot for Anxiety



The visual inspection of the normal Q–Q plot for the Anxiety variable suggests that the data are approximately normally distributed. While minor deviations appear at the distribution’s tails, most data points align closely with the expected normal line. These deviations are not severe and are consistent with what is usually acceptable for parametric statistical tests, especially given the sample size ($N = 137$).

Figure 14

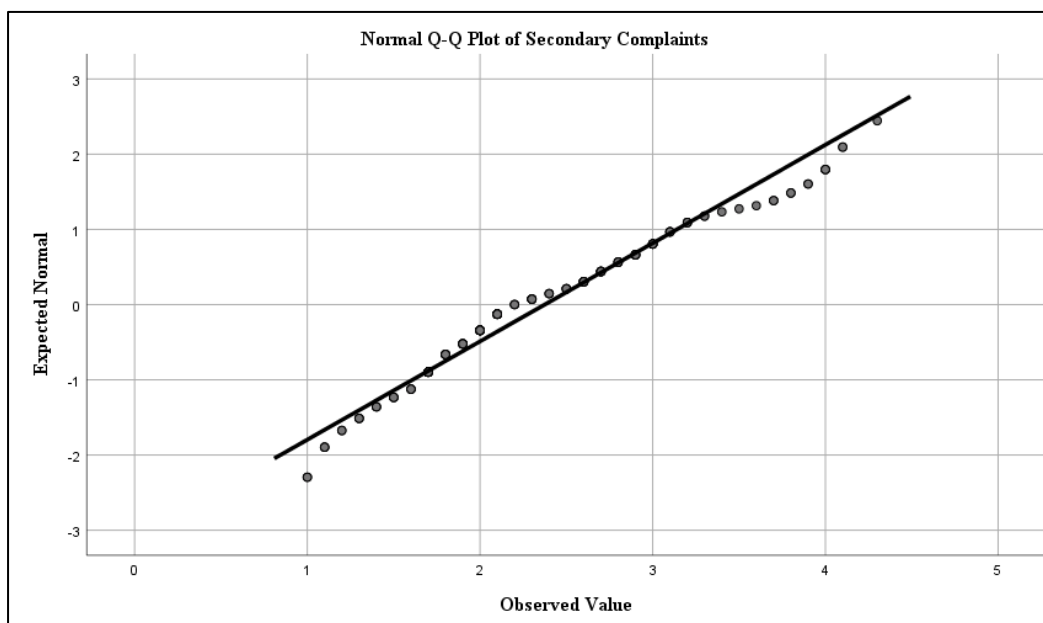
Normal Q-Q Plot for Core Symptoms



The visual inspection of the normal Q–Q plot for the Anxiety variable suggests that the data are approximately normally distributed, with only minor deviations in the tails.

Figure 15

Normal Q-Q Plot for Secondary Complaints



The Q–Q plot for the Secondary Complaints variable indicates that the data are approximately normally distributed. While minor deviations appear at the distribution’s tails, most data points align closely with the expected normal line.

Tests of normality were conducted using the Shapiro–Wilk test, which indicated that most study variables significantly deviated from a normal distribution ($p < .05$). However, visual inspection of Q–Q plots showed that these deviations were minor and primarily occurred in the tails of the distributions. Given the large sample size ($N = 137$), and the robustness of parametric procedures to mild violations of normality, sample sizes of 30 or more ($n > 30$) are considered sufficient for the Central Limit Theorem (CLT) to be valid, indicating that the sample means' distribution is significantly normally distributed (Ganti, 2025). Therefore, the data were said to be sufficiently normal to proceed with parametric analyses.

4.4.2 Independent Sample T-Test

Research Objective 2: To identify gender differences in perfectionism (strivings and concerns), academic performance, anxiety, and burnout among undergraduate students.

To address this objective, independent samples t-tests were conducted to examine whether there were significant differences between male and female students in levels of perfectionistic strivings, perfectionistic concerns, academic performance, anxiety, and burnout. This analysis helps determine if gender plays a role in influencing these dependent and independent variables.

To address this, the following hypotheses are tested:

Hypothesis 1: There is a significant gender difference in perfectionistic strivings among undergraduate students.

Hypothesis 2: There is a significant gender difference in perfectionistic concerns among undergraduate students.

Hypothesis 3: There is a significant gender difference in academic performance among undergraduate students.

Hypothesis 4: There is a significant gender difference in anxiety among undergraduate students.

Hypothesis 5: There is a significant gender difference in burnout among undergraduate students.

4.4.2.1 Gender Difference in Perfectionistic Strivings

Null hypothesis (H_0): There is no significant gender difference in perfectionistic strivings among undergraduate students.

Alternative hypothesis (H_1): There is a significant gender difference in perfectionistic strivings among undergraduate students.

Table 19

Group Statistics for Perfectionistic Strivings between Genders

<i>Group Statistics</i>					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Strivings	Male	68	4.7878	1.08755	.13188
	Female	69	5.1553	1.06080	.12771

Table 20*Independent Sample T-Test for Perfectionistic Strivings between Genders**Independent Samples Test*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Strivings	Equal variances assumed	.228	.634	-2.002	135	.047	-.36746	.18355	-.73047	-.00446
	Equal variances not assumed			-2.002	134.789	.047	-.36746	.18358	-.73054	-.00439

An independent sample t-test was conducted to investigate gender differences in perfectionistic strivings among undergraduate students. Levene's test for Equality of Variances was not significant, $F(1, 135) = 0.23, p = .634$, indicating that the assumption of equal variances was met. The results revealed a statistically significant difference between males ($M = 4.79, SD = 1.09$) and females ($M = 5.16, SD = 1.06$), $t(135) = -2.00, p = .047$. This suggests that female students reported significantly higher levels of perfectionistic strivings than male undergraduate students. Since the p -value is less than .05, the null hypothesis (H_0) is rejected. Therefore, it is concluded that there is a significant gender difference in perfectionistic strivings among undergraduate students.

4.4.2.2 Gender Difference in Perfectionistic Concerns

Null hypothesis (H_0): There is no significant gender difference in perfectionistic concerns among undergraduate students.

Alternative hypothesis (H_1): There is a significant gender difference in perfectionistic concerns among undergraduate students.

Table 21*Group Statistics for Perfectionistic Concerns between Genders*

<i>Group Statistics</i>					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Concerns	Male	68	4.2267	1.22786	.14890
	Female	69	4.1655	1.30033	.15654

Table 22*Independent Sample T-Test for Perfectionistic Concerns between Genders*

<i>Independent Samples Test</i>										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Concerns	Equal variances assumed	1.004	.318	.283	135	.777	.06126	.21614	-.36620	.48871
	Equal variances not assumed			.284	134.755	.777	.06126	.21605	-.36603	.48854

An independent sample t-test was conducted to investigate gender differences in perfectionistic concerns among undergraduate students. Levene's test for Equality of Variances was not significant, $F(1, 135) = 1.00, p = .318$, indicating that the assumption of equal variances was met. Although male students ($M = 4.23, SD = 1.23$) reported higher level of perfectionistic concerns than the female ($M = 4.17, SD = 1.30$) undergraduate students, the results showed that there is no statistically significant difference in perfectionistic concerns between males and females undergraduate students, $t(135) = 0.28, p = .777$. Since the p -value is greater than .05, the null hypothesis (H_0) is accepted. Therefore, it is concluded that there is no significant gender difference in perfectionistic concerns among undergraduate students.

4.4.2.3 Gender Differences in Academic Performance

Null hypothesis (H_0): There is no significant gender difference in academic performance among undergraduate students.

Alternative hypothesis (H_1): There is a significant gender difference in academic performance among undergraduate students.

Table 23

Group Statistics for Academic Performance between Genders

<i>Group Statistics</i>					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
CGPA	Male	68	3.4834	.22760	.02760
	Female	69	3.5601	.23048	.02775

Table 24

Independent Sample T-Test for Academic Performance between Genders

<i>Independent Samples Test</i>									
		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
CGPA	Equal variances assumed	.382	.537	-1.961	135	.052	-.07676	.03914	-.15417 .00064
	Equal variances not assumed			-1.961	134.999	.052	-.07676	.03914	-.15416 .00064

An independent sample t-test was conducted to investigate gender differences in academic performance among undergraduate students. Levene's test for Equality of Variances was not significant, $F(1, 135) = 0.38$, $p = .537$, supporting the assumption of equal variances. Female students ($M = 3.56$, $SD = 0.23$) scored higher than male students ($M = 3.48$, $SD = 0.23$). However, this difference was not statistically significant at the $\alpha = .05$ level, $t(135) = -1.96$, $p = .052$. Since the p -value is greater than .05, the null hypothesis (H_0) is accepted. Therefore, it is concluded that there is no significant gender difference in academic performance among undergraduate students.

4.4.2.4 Gender Differences in Anxiety

Null hypothesis (H_0): There is no significant gender difference in anxiety among undergraduate students.

Alternative hypothesis (H_1): There is a significant gender difference in anxiety among undergraduate students.

Table 25

Group Statistics for Anxiety between Genders

<i>Group Statistics</i>					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Anxiety	Male	68	1.1912	.64628	.07837
	Female	69	1.1470	.75512	.09091

Table 26

Independent Sample T-Test for Anxiety between Genders

<i>Independent Samples Test</i>										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Anxiety	Equal variances assumed	3.643	.058	.368	135	.714	.04418	.12016	-.19347	.28182
	Equal variances not assumed			.368	132.410	.713	.04418	.12003	-.19324	.28159

An independent sample t-test was conducted to investigate gender differences in anxiety levels among undergraduate students. Levene's test for Equality of Variances was not significant, $F(1, 135) = 3.64, p = .058$, supporting the assumption of equal variances. Male students ($M = 1.19, SD = 0.65$) scored higher than female students ($M = 1.15, SD = 0.76$). However, this difference was not statistically significant at the $\alpha = .05$ level, $t(135) = 0.37, p = .714$. Since the p -value is greater than .05, the null hypothesis (H_0) is accepted.

Therefore, it is concluded that there is no significant gender difference in anxiety among undergraduate students.

4.4.2.5 Gender Differences in Burnout

Null hypothesis (H_0): There is no significant gender difference in burnout among undergraduate students.

Alternative hypothesis (H_1): There is a significant gender difference in burnout among undergraduate students.

Table 27

Group Statistics for Core Symptoms between Genders

<i>Group Statistics</i>					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Core Symptoms	Male	68	2.6654	.81338	.09864
	Female	69	2.7150	.90291	.10870

Table 28

Independent Sample T-Test for Core Symptoms between Genders

<i>Independent Samples Test</i>									
		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Core Symptoms	Equal variances assumed	1.268	.262	-.337	135	.736	-.04953	.14689	-.34004 .24097
	Equal variances not assumed			-.337	133.929	.736	-.04953	.14678	-.33984 .24077

An independent sample t-test was conducted to investigate gender differences in burnout core symptoms among undergraduate students. Levene's test for Equality of Variances was not significant, $F(1, 135) = 1.27$, $p = .262$, supporting the assumption of equal variances. Female students ($M = 2.72$, $SD = 0.90$) scored higher than male students ($M = 2.67$, $SD = 0.81$).

However, this difference was not statistically significant difference at the $\alpha = .05$ level, $t(135) = -0.34, p = .736$.

Table 29

Group Statistics for Secondary Complaints between Genders

<i>Group Statistics</i>					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Secondary Complaints	Male	68	2.3809	.71095	.08622
	Female	69	2.3681	.82060	.09879

Table 30

Independent Sample T-Test for Secondary Complaints between Genders

<i>Independent Samples Test</i>		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Secondary Complaints	Equal variances assumed	.598	.441	.097	135	.923	.01277	.13126	-.24682	.27235
	Equal variances not assumed			.097	132.827	.923	.01277	.13112	-.24659	.27212

An independent sample t-test was conducted to investigate gender differences in burnout secondary complaints among undergraduate students. Levene's test for Equality of Variances was not significant, $F(1, 135) = 0.60, p = .441$, supporting the assumption of equal variances. Male students ($M = 2.38, SD = 0.71$) scored higher than female students ($M = 2.37, SD = 0.82$). However, this difference was not statistically significant at the $\alpha = .05$ level, $t(135) = 0.10, p = .923$.

Since both dimensions of burnout (Core Symptoms and Secondary Complaints) showed non-significant differences ($p > .05$), there is insufficient evidence to reject null hypothesis (H_0). Therefore, it is concluded that there is no significant gender difference in burnout among undergraduate students.

4.5 Correlation Analysis

Research Objective 3: To investigate the relationship between perfectionism (strivings and concerns) and academic performance among undergraduate students.

Research Objective 4: To investigate the relationship between perfectionism (strivings and concerns) and anxiety among undergraduate students.

Research Objective 5: To investigate the relationship between perfectionism (strivings and concerns) and burnout among undergraduate students.

Pearson correlation analysis was conducted to examine the relationships between perfectionistic strivings, perfectionistic concerns, academic performance (as measured by CGPA), anxiety, and burnout (core symptoms and secondary complaints) among undergraduate students. Prior to analysis, assumptions of normality were assessed through the Shapiro–Wilk test and visual inspection of Q–Q plots. Although minor deviations from normality were observed in some variables, these deviations were not severe, and sample size was adequate ($N = 137$). Therefore, Pearson's correlation coefficient (r) was selected over Spearman's rank correlation coefficient (ρ), as it is robust to mild non-normality and provides a more interpretable measure of the strength and direction of linear relationships between continuous variables.

To address this, the following hypotheses were tested.

Hypothesis 6: There is a significant relationship between perfectionistic strivings and academic performance among undergraduate students.

Hypothesis 7: There is a significant relationship between perfectionistic concerns and academic performance among undergraduate students.

Hypothesis 8: There is a significant relationship between perfectionistic strivings and anxiety among undergraduate students.

Hypothesis 9: There is a significant relationship between perfectionistic concerns and anxiety among undergraduate students.

Hypothesis 10: There is a significant relationship between perfectionistic strivings and burnout among undergraduate students.

Hypothesis 11: There is a significant relationship between perfectionistic concerns and burnout among undergraduate students

Table 31

Pearson Correlation between Perfectionistic Strivings, Concerns, Academic Performance, Anxiety, Burnout Core Symptoms and Secondary Complaints

Variable	Strivings	Concerns	CGPA	Anxiety	Core Symptoms	Secondary Complaints
Strivings	-					
Concerns	.573**	-				
CGPA	.185*	-.145	-			
Anxiety	.291**	.591**	-.052	-		
Core Symptoms	.150	.511**	-.094	.666**	-	
Secondary Complaints	.110	.332**	-.187*	.623**	.651**	-

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

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

4.5.1 Relationship between Perfectionistic Strivings and Academic Performance

Null hypothesis (H_0): There is no significant relationship between perfectionistic strivings and academic performance among undergraduate students.

Alternative hypothesis (H_1): There is a significant relationship between perfectionistic strivings and academic performance among undergraduate students.

A Pearson correlation analysis was conducted to investigate the relationship between perfectionistic strivings and academic performance, as measured by cumulative grade point average (CGPA), among undergraduate students. The results revealed a statistically significant but weak positive correlation between perfectionistic strivings and academic performance, $r(135) = .185, p = .030$. The null hypothesis (H_0) is rejected, indicating a significant relationship between perfectionistic strivings and academic performance among undergraduate students. Therefore, greater perfectionistic strivings contribute to improved academic achievement.

4.5.2 Relationship between Perfectionistic Concerns and Academic Performance

Null hypothesis (H_0): There is no significant relationship between perfectionistic concerns and academic performance among undergraduate students.

Alternative hypothesis (H_1): There is a significant relationship between perfectionistic concerns and academic performance among undergraduate students.

To test the hypothesis of whether perfectionistic concerns are significantly related to academic performance, a Pearson correlation analysis was conducted. Results indicated a weak, non-significant negative correlation between perfectionistic concerns and academic performance, $r(135) = -.145, p = .091$. This suggests that higher levels of perfectionistic concerns are associated with lower academic performance, but this relationship did not reach statistical significance. Therefore, the null hypothesis (H_0) is accepted, stating that there is no significant relationship between perfectionistic concerns and academic performance, as the

evidence was insufficient to support a significant relationship between perfectionistic concerns and academic performance.

4.5.3 Relationship between Perfectionistic Strivings and Anxiety

Null hypothesis (H_0): There is no significant relationship between perfectionistic strivings and anxiety among undergraduate students.

Alternative hypothesis (H_1): There is a significant relationship between perfectionistic strivings and anxiety among undergraduate students.

To examine whether perfectionistic strivings are significantly related to anxiety, a Pearson correlation analysis was performed. The results revealed a moderate positive correlation between perfectionistic strivings and anxiety, $r(135) = .29, p < .01$. This indicates that higher levels of perfectionistic strivings are associated with higher levels of anxiety among undergraduate students, and the relationship is statistically significant. Given the significant correlation, the null hypothesis (H_0) was rejected. Therefore, there is a significant positive relationship between perfectionistic strivings and anxiety among undergraduate students.

4.5.4 Relationship between Perfectionistic Concerns and Anxiety

Null hypothesis (H_0): There is no significant relationship between perfectionistic concerns and anxiety among undergraduate students.

Alternative hypothesis (H_1): There is a significant relationship between perfectionistic concerns and anxiety among undergraduate students.

To determine whether perfectionistic concerns are significantly related to anxiety, a Pearson correlation was conducted. The results indicated a strong, statistically significant positive correlation between perfectionistic concerns and anxiety, $r(135) = .59, p < .001$. This finding suggests that undergraduate students who reported higher levels of perfectionistic

concerns also reported significantly higher levels of anxiety. Given the strength and statistical significance of this relationship, the null hypothesis (H_0) was rejected, indicating a significant relationship between perfectionistic concerns and anxiety among undergraduate students.

4.5.5 Relationship between Perfectionistic Strivings and Burnout

Null hypothesis (H_0): There is no significant relationship between perfectionistic strivings and burnout among undergraduate students.

Alternative hypothesis (H_1): There is a significant relationship between perfectionistic strivings and burnout among undergraduate students.

To examine this hypothesis, two Pearson correlation analyses were conducted to investigate the relationship between perfectionistic strivings and the two dimensions of burnout (core symptoms and secondary complaints). The results indicated that the correlation between perfectionistic strivings and core symptoms was not statistically significant, $r(135) = .150$, $p = .081$. Similarly, the correlation between perfectionistic strivings and secondary complaints was also not statistically significant, $r(135) = .110$, $p = .20$. These findings suggest that perfectionistic strivings are not significantly related to either core symptoms or secondary complaints of burnout among undergraduate students. Therefore, the null hypothesis (H_0) is accepted, indicating that there is no significant relationship between perfectionistic strivings and burnout among undergraduate students.

4.5.6 Relationship between Perfectionistic Concerns and Burnout

Null hypothesis (H_0): There is no significant relationship between perfectionistic concerns and burnout among undergraduate students.

Alternative hypothesis (H_1): There is a significant relationship between perfectionistic concerns and burnout among undergraduate students.

Pearson correlation analysis was conducted to investigate the relationship between perfectionistic concerns and burnout, as measured by core symptoms and secondary complaints. The results indicated that perfectionistic concerns were significantly and positively correlated with core symptoms of burnout ($r(135) = .511, p < .001$) and also significantly and positively correlated with secondary complaints ($r(135) = .332, p < .001$). These results suggest that higher levels of perfectionistic concerns are associated with greater burnout symptoms, both in terms of core symptoms and secondary complaints. Therefore, the null hypothesis (H_0) is rejected, indicating a significant relationship between perfectionistic concerns and burnout among undergraduate students.

4.6 Regression Analysis

Research Objective 6: To determine which dimensions of perfectionism (strivings or concerns) significantly predict academic performance, anxiety, and burnout.

Multiple linear regression analysis was conducted to evaluate the predictive effects of perfectionistic strivings and perfectionistic concerns on academic performance (CGPA), anxiety, and burnout (core symptoms and secondary complaints) among undergraduate students. Prior to analysis, the assumptions of linearity and normality for the variables were assessed and found to be met. Given the continuous nature of the variables and the absence of multicollinearity, multiple linear regression was the appropriate statistical approach. Each dependent variable was investigated in a separate model to determine the predictive effects of the two perfectionism dimensions.

To address this, the following hypotheses were tested:

Hypothesis 12: Perfectionistic strivings significantly predict academic performance among undergraduate students.

Hypothesis 13: Perfectionistic concerns significantly predict academic performance among undergraduate students.

Hypothesis 14: Perfectionistic strivings significantly predict anxiety among undergraduate students.

Hypothesis 15: Perfectionistic concerns significantly predict anxiety among undergraduate students.

Hypothesis 16: Perfectionistic strivings significantly predict burnout among undergraduate students.

Hypothesis 17: Perfectionistic concerns significantly predict burnout among undergraduate students.

4.6.1 Prediction of Academic Performance by Perfectionistic Strivings and Concerns

Hypothesis 12: Perfectionistic strivings significantly predict academic performance among undergraduate students.

Null hypothesis (H_0): Perfectionistic strivings do not significantly predict academic performance among undergraduate students.

Alternative hypothesis (H_1): Perfectionistic strivings significantly predict academic performance among undergraduate students.

Hypothesis 13: Perfectionistic concerns significantly predict academic performance among undergraduate students.

Null hypothesis (H_0): Perfectionistic concerns do not significantly predict academic performance among undergraduate students.

Alternative hypothesis (H_1): Perfectionistic concerns significantly predict academic performance among undergraduate students.

Table 32

Model Summary for the Regression Predicting Academic Performance from Perfectionistic Strivings and Concerns

<i>Model Summary</i>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.358 ^a	.128	.115	.21772

a. Predictors: (Constant), Concerns, Strivings

Table 33

ANOVA Table for the Regression Predicting Academic Performance from Perfectionistic Strivings and Concerns

<i>ANOVA^a</i>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.932	2	.466	9.835	.000 ^b
	Residual	6.352	134	.047		
	Total	7.285	136			

a. Dependent Variable: CGPA

b. Predictors: (Constant), Concerns, Strivings

Table 34

Regression Coefficients for Predicting Academic Performance from Perfectionistic Strivings and Concerns

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.387	.089		38.070	.000
	Strivings	.085	.021	.399	4.056	.000
	Concerns	-.069	.018	-.373	-3.794	.000

a. Dependent Variable: CGPA

A standard multiple linear regression was conducted to investigate whether perfectionistic strivings and perfectionistic concerns significantly predicted academic performance among undergraduate students. The overall model was statistically significant, $F(2, 134) = 9.84$, $p < .001$, with $R = .358$, $R^2 = .128$, and adjusted $R^2 = .115$, indicating that approximately 12.8% of the variance in academic performance (CGPA) was explained by the two dimensions of perfectionism.

Perfectionistic strivings significantly and positively predicted CGPA, $B = 0.085$, $SE = 0.021$, $\beta = .399$, $t(134) = 4.06$, $p < .001$, suggesting that higher levels of strivings are associated with better academic performance. In contrast, perfectionistic concerns significantly and negatively predicted CGPA, $B = -0.069$, $SE = 0.018$, $\beta = -.373$, $t(134) = -3.79$, $p < .001$, indicating that higher concerns are associated with poorer academic outcomes.

Based on these findings, both null hypotheses (H_0) were rejected. Hypothesis 12, which proposed that perfectionistic strivings significantly predict academic performance, was accepted. Similarly, hypothesis 13, which proposed that perfectionistic concerns significantly predict academic performance, was also accepted, although the direction of the relationship was negative.

4.6.2 Prediction of Anxiety by Perfectionistic Strivings and Concerns

Hypothesis 14: Perfectionistic strivings significantly predict anxiety among undergraduate students.

Null hypothesis (H_0): Perfectionistic strivings do not significantly predict anxiety among undergraduate students.

Alternative hypothesis (H_1): Perfectionistic strivings significantly predict anxiety among undergraduate students.

Hypothesis 15: Perfectionistic concerns significantly predict anxiety among undergraduate students.

Null hypothesis (H_0): Perfectionistic concerns do not significantly predict anxiety among undergraduate students.

Alternative hypothesis (H_1): Perfectionistic concerns significantly predict anxiety among undergraduate students.

Table 35

Model Summary for the Regression Predicting Anxiety from Perfectionistic Strivings and Concerns

<i>Model Summary</i>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.594 ^a	.353	.343	.56815

a. Predictors: (Constant), Concerns, Strivings

Table 36

ANOVA Table for the Regression Predicting Anxiety from Perfectionistic Strivings and Concerns

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.570	2	11.785	36.510	.000 ^b
	Residual	43.255	134	.323		
	Total	66.825	136			

a. Dependent Variable: Anxiety

b. Predictors: (Constant), Concerns, Strivings

Table 37

Regression Coefficients for Predicting Anxiety from Perfectionistic Strivings and Concerns

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.077	.232		-.330	.742
	Strivings	-.046	.055	-.071	-.840	.402
	Concerns	.351	.047	.632	7.453	.000

a. Dependent Variable: Anxiety

A standard multiple linear regression was conducted to investigate whether perfectionistic strivings and perfectionistic concerns significantly predicted anxiety among undergraduate students. The overall model was statistically significant, $F(2, 134) = 36.51$, $p < .001$, with $R = .594$, $R^2 = .353$, and adjusted $R^2 = .343$, indicating that approximately 35.3% of the variance in anxiety was explained by the two perfectionism dimensions.

Perfectionistic concerns significantly and positively predicted anxiety, $B = .351$, $SE = .047$, $\beta = .632$, $t(134) = 7.45$, $p < .001$, suggesting that higher concerns are associated with

greater anxiety. In contrast, perfectionistic strivings did not significantly predict anxiety, $B = -.046$, $SE = .055$, $\beta = -.071$, $t(134) = -0.84$, $p = .402$.

Therefore, the null hypothesis (H_0) of hypothesis 14 is accepted, indicating that there is no significant predictive effect of perfectionistic strivings on anxiety. However, the null hypothesis (H_0) for hypothesis 15 is rejected, indicating that perfectionistic concerns significantly predict anxiety among undergraduate students.

4.6.3 Prediction of Burnout by Perfectionistic Strivings and Concerns

Hypothesis 16: Perfectionistic strivings significantly predict burnout core symptoms among undergraduate students.

Null hypothesis (H_0): Perfectionistic strivings do not significantly predict burnout core symptoms among undergraduate students.

Alternative hypothesis (H_1): Perfectionistic strivings significantly predict burnout core symptoms among undergraduate students.

Hypothesis 17: Perfectionistic concerns significantly predict burnout core symptoms among undergraduate students.

Null hypothesis (H_0): Perfectionistic concerns do not significantly predict burnout core symptoms among undergraduate students.

Alternative hypothesis (H_1): Perfectionistic concerns significantly predict burnout core symptoms among undergraduate students.

Table 38

Model Summary for the Regression Predicting Core Symptoms from Perfectionistic Strivings and Concerns

<i>Model Summary</i>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.540 ^a	.291	.281	.72661	

a. Predictors: (Constant), Concerns, Strivings

Table 39

ANOVA Table for the Regression Predicting Core Symptoms from Perfectionistic Strivings and Concerns

<i>ANOVA^a</i>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.100	2	14.550	27.559	.000 ^b
	Residual	70.747	134	.528		
	Total	99.847	136			

a. Dependent Variable: Core Symptoms

b. Predictors: (Constant), Concerns, Strivings

Table 40

Regression Coefficients for Predicting Core Symptoms from Perfectionistic Strivings and Concerns

<i>Coefficients^a</i>						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.721	.297		5.796	.000
	Strivings	-.168	.070	-.213	-2.399	.018
	Concerns	.430	.060	.633	7.134	.000

a. Dependent Variable: Core Symptoms

A multiple linear regression was conducted to investigate whether perfectionistic strivings and perfectionistic concerns significantly predicted core symptoms among undergraduate students. The overall model was statistically significant, $F(2, 134) = 27.56$, $p < .001$, with $R = .540$, $R^2 = .291$, and adjusted $R^2 = .281$. This indicates that approximately 29.1% of the variance in core symptoms was explained by the two perfectionism dimensions.

Results revealed that perfectionistic strivings significantly and negatively predicted core symptoms, $B = -.168$, $SE = .070$, $\beta = -.213$, $t(134) = -2.40$, $p = .018$. This suggests that higher levels of strivings are associated with fewer core symptoms. In contrast, perfectionistic concerns significantly and positively predicted core symptoms, $B = .430$, $SE = .060$, $\beta = .633$, $t(134) = 7.13$, $p < .001$, indicating that greater concerns are associated with more severe core symptoms.

Based on these findings, the null hypothesis (H_0) of hypothesis 16 is rejected, indicating that perfectionistic strivings significantly predict core symptoms among undergraduate students. Similarly, the null hypothesis (H_0) of hypothesis 17 is rejected. This indicates that perfectionistic concerns can significantly predict core symptoms among undergraduate students.

Hypothesis 18: Perfectionistic strivings significantly predict burnout secondary complaints among undergraduate students.

Null hypothesis (H_0): Perfectionistic strivings do not significantly predict burnout secondary complaints among undergraduate students.

Alternative hypothesis (H_1): Perfectionistic strivings significantly predict burnout secondary complaints among undergraduate students.

Hypothesis 19: Perfectionistic concerns significantly predict burnout secondary complaints among undergraduate students.

Null hypothesis (H_0): Perfectionistic concerns do not significantly predict burnout secondary complaints among undergraduate students.

Alternative hypothesis (H_1): Perfectionistic concerns significantly predict burnout secondary complaints among undergraduate students.

Table 41

Model Summary for the Regression Predicting Secondary Complaints from Perfectionistic Strivings and Concerns

<i>Model Summary</i>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.345 ^a	.119	.106	.72356	

a. Predictors: (Constant), Concerns, Strivings

Table 42

ANOVA Table for the Regression Predicting Secondary Complaints from Perfectionistic Strivings and Concerns

<i>ANOVA^a</i>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.507	2	4.753	9.079	.000 ^b
	Residual	70.154	134	.524		
	Total	79.661	136			

a. Dependent Variable: Secondary Complaints

b. Predictors: (Constant), Concerns, Strivings

Table 43

Regression Coefficients for Predicting Secondary Complaints from Perfectionistic Strivings and Concerns

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.772	.296		5.994	.000
	Strivings	-.083	.070	-.118	-1.197	.233
	Concerns	.242	.060	.399	4.038	.000

a. Dependent Variable: Secondary Complaints

A multiple linear regression was conducted to investigate whether perfectionistic strivings and perfectionistic concerns significantly predicted secondary complaints among undergraduate students. The overall model was statistically significant, $F(2, 134) = 9.08$, $p < .001$, with $R = .345$, $R^2 = .119$, and adjusted $R^2 = .106$. This indicates that approximately 11.9% of the variance in secondary complaints was explained by the two perfectionism dimensions.

Results revealed that perfectionistic strivings did not significantly predict secondary complaints, $B = -.083$, $SE = .070$, $\beta = -.118$, $t(134) = -1.20$, $p = .233$, suggesting that strivings are not a significant predictor of secondary complaints. In contrast, perfectionistic concerns significantly and positively predicted secondary complaints, $B = .242$, $SE = .060$, $\beta = .399$, $t(134) = 4.04$, $p < .001$, indicating that higher concerns are associated with more severe secondary complaints.

Based on these findings, the null hypothesis (H_0) of Hypothesis 18 is accepted, indicating that perfectionistic strivings do not significantly predict secondary complaints among undergraduate students. However, the null hypothesis (H_0) of Hypothesis 19 is rejected, indicating that perfectionistic concerns significantly predict secondary complaints among undergraduate students.

4.7 Moderation Analysis

Research Objective 7: To investigate the moderating effect of gender on the relationship between perfectionism (strivings and concerns) and academic performance.

Research Objective 8: To investigate the moderating effect of gender on the relationship between perfectionism (strivings and concerns) and anxiety.

Research Objective 9: To investigate the moderating effect of gender on the relationship between perfectionism (strivings and concerns) and burnout.

To investigate whether gender moderates the relationships between perfectionism (strivings and concerns) and various psychological and academic outcomes, a series of moderation analyses were conducted using the PROCESS v5.0 by Andrew F. Hayes. Gender was included as a moderator in models predicting academic performance (CGPA), anxiety, and burnout (core symptoms and secondary complaints) among undergraduate students. Each model tested the interaction effect between gender and one dimension of perfectionism (strivings or concerns) on the relevant outcome variable. Prior to conducting the analysis, all predictor variables were mean-centred to reduce multicollinearity. Separate moderation models were tested for each dependent variable to determine whether the strength or direction of the relationships between perfectionism and dependent variables were influenced by gender.

Therefore, to address these, the following hypotheses were tested:

Hypothesis 20: Gender significantly moderates the relationship between perfectionistic strivings and academic performance.

Hypothesis 21: Gender significantly moderates the relationship between perfectionistic concerns and academic performance.

Hypothesis 22: Gender significantly moderates the relationship between perfectionistic strivings and anxiety.

Hypothesis 23: Gender significantly moderates the relationship between perfectionistic concerns and anxiety.

Hypothesis 24: Gender significantly moderates the relationship between perfectionistic strivings and burnout core symptoms.

Hypothesis 25: Gender significantly moderates the relationship between perfectionistic concerns and burnout core symptoms.

Hypothesis 26: Gender significantly moderates the relationship between perfectionistic strivings and burnout secondary complaints.

Hypothesis 27: Gender significantly moderates the relationship between perfectionistic concerns and burnout secondary complaints.

4.7.1 Moderating Role of Gender in the Relationship Between Perfectionistic Strivings and Academic Performance

Hypothesis 20: Gender significantly moderates the relationship between perfectionistic strivings and academic performance.

Null hypothesis (H_0): Gender does not significantly moderate the relationship between perfectionistic strivings and academic performance.

Alternative hypotheses (H_1): Gender significantly moderates the relationship between perfectionistic strivings and academic performance.

Figure 16

Moderation Analysis of the Effect of Perfectionistic Strivings on Academic Performance with Gender as a Moderator

```
Model: 1
Y: MeanCGPA
X: Striving
W: Gender

Sample
Size: 137

*****

OUTCOME VARIABLE:
MeanCGPA

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .2341      .0548      .0518      2.5701      3.0000      133.0000      .0570

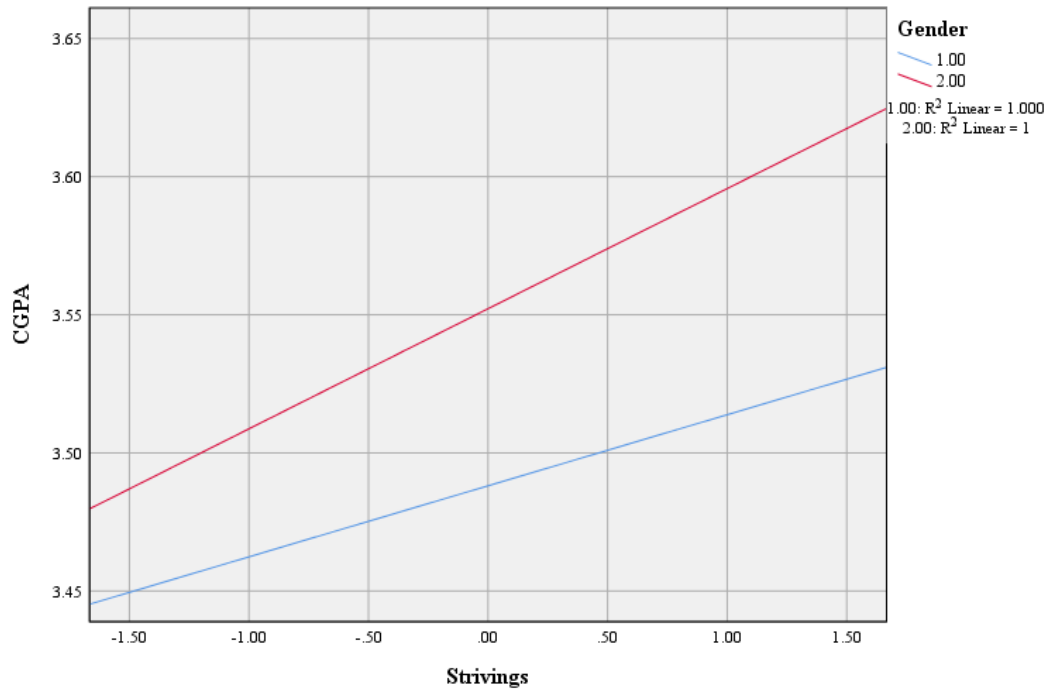
Model
      coeff      se      t      p      LLCI      ULCI
constant      3.4241      .0625      54.7756      .0000      3.3004      3.5477
Striving      .0079      .0574      .1384      .8901      -.1055      .1214
Gender      .0641      .0395      1.6238      .1068      -.0140      .1421
Int_1      .0178      .0365      .4878      .6265      -.0543      .0899

Product terms key:
Int_1      :      Striving x      Gender

Test(s) of highest order unconditional interaction(s):
      R2-chng      F      df1      df2      p
X*W      .0017      .2379      1.0000      133.0000      .6265
```

Figure 17

Interaction Between Perfectionistic Strivings and Gender Predicting Academic Performance



Note. Gender was coded as 1 = Male, 2 = Female. The slopes represent the effects of perfectionistic strivings on CGPA at each level of gender.

A moderation analysis was conducted to investigate whether gender moderates the relationship between perfectionistic strivings and academic performance. The first regression model included the centered independent variable (perfectionistic strivings) and the moderator (gender), explaining 5.5% of the variance in CGPA, $R^2 = .055$, $F(3, 133) = 2.57$, $p = .057$. In this model, neither perfectionistic strivings ($B = 0.008$, $SE = 0.057$, $t = 0.14$, $p = .89$) nor gender ($B = .064$, $SE = .040$, $t = 1.62$, $p = .11$) were significant predictors of academic performance.

The second step of the model included the interaction term (Perfectionistic Strivings $\times$ Gender), which did not account for a significant additional proportion of variance in CGPA, $\Delta R^2 = .002$, $F(1, 133) = 0.24$, $p = .627$. The interaction effect was non-significant ($B = .018$, $SE = .037$, $t = 0.49$, $p = .627$).

Although the interaction plot in Figure 17 suggests a slightly steeper positive slope for female individuals compared to males, this visual difference was not statistically significant. These results indicate that the null hypothesis (H_0) is accepted, and gender does not significantly moderate the relationship between perfectionistic strivings and academic performance.

4.7.2 Moderating Role of Gender in the Relationship Between Perfectionistic Concerns and Academic Performance

Hypothesis 21: Gender significantly moderates the relationship between perfectionistic concerns and academic performance.

Null hypothesis (H_0): Gender does not significantly moderate the relationship between perfectionistic concerns and academic performance.

Alternative hypotheses (H_1): Gender significantly moderates the relationship between perfectionistic concerns and academic performance.

Figure 18

Moderation Analysis of the Effect of Perfectionistic Concerns on Academic Performance with Gender as a Moderator

```
Model: 1
  Y: MeanCGPA
  X: Concerns
  W: Gender

Sample
Size: 137

*****

OUTCOME VARIABLE:
MeanCGPA

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .2182    .0476    .0522    2.2157    3.0000    133.0000    .0892

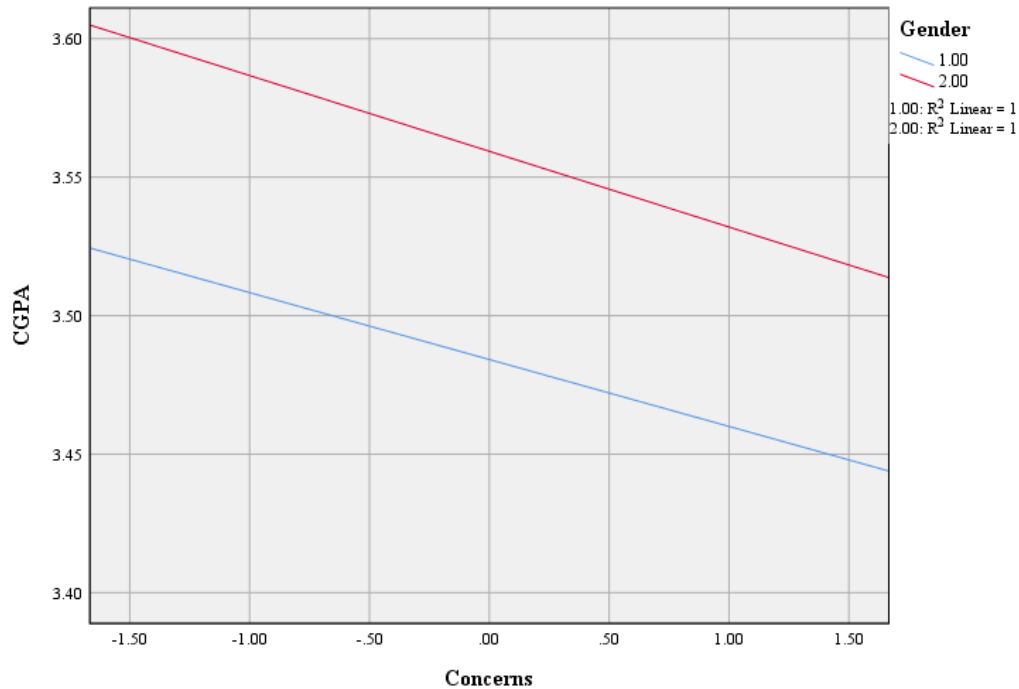
Model
      coeff      se      t      p      LLCI      ULCI
constant    3.4089    .0619   55.1057    .0000    3.2866    3.5313
Concerns    -.0210    .0502   -.4179    .6767   -.1203    .0783
Gender       .0752    .0390    1.9259    .0562   -.0020    .1524
Int_1      -.0032    .0311   -.1023    .9187   -.0648    .0584

Product terms key:
Int_1      :      Concerns x      Gender

Test(s) of highest order unconditional interaction(s):
      R2-chng      F      df1      df2      p
X*W      .0001      .0105      1.0000    133.0000    .9187
```

Figure 19

Interaction Between Perfectionistic Concerns and Gender Predicting Academic Performance



Note. Gender was coded as 1 = Male, 2 = Female. The slopes represent the effects of perfectionistic concerns on CGPA at each level of gender.

A moderation analysis was conducted to investigate whether gender moderates the relationship between perfectionistic concerns and academic performance. The first regression model included the centered independent variable (perfectionistic concerns) and the moderator (gender), explaining 4.8% of the variance in CGPA, $R^2 = .048$, $F(3, 133) = 2.22$, $p = .089$. In this model, neither perfectionistic concerns ($B = -.021$, $SE = .050$, $t = -.42$, $p = .68$) nor gender ($B = .075$, $SE = .039$, $t = 1.93$, $p = .06$) were significant predictors of academic performance. The second step of the model included the interaction term (Perfectionistic Concerns $\times$ Gender), which did not account for a significant additional proportion of variance in CGPA, $\Delta R^2 < .001$, $F(1, 133) = 0.01$, $p = .918$. The interaction effect was also non-significant, $B = -.003$, $SE = .031$, $t = -.102$, $p = .918$. Although the interaction plot in Figure 19 suggests a slightly stronger

negative relationship between perfectionistic concerns and CGPA for female students compared to males, this visual pattern was not statistically supported. These results indicate that the null hypothesis (H_0) is accepted, indicating that gender does not significantly moderate the relationship between perfectionistic concerns and academic performance.

4.7.3 Moderating Role of Gender in the Relationship Between Perfectionistic Strivings and Anxiety

Hypothesis 22: Gender significantly moderates the relationship between perfectionistic strivings and anxiety.

Null hypothesis (H_0): Gender does not significantly moderate the relationship between perfectionistic strivings and anxiety.

Alternative hypotheses (H_1): Gender significantly moderates the relationship between perfectionistic strivings and anxiety.

Figure 20

Moderation Analysis of the Effect of Perfectionistic Strivings on Anxiety with Gender as a Moderator

```
Model: 1
  Y: Anxiety
  X: Striving
  W: Gender

Sample
Size: 137

*****

OUTCOME VARIABLE:
Anxiety

Model Summary
      R      R-sq      MSE      F      df1      df2      p
    .3045    .0927    .4559    4.5313    3.0000   133.0000   .0047

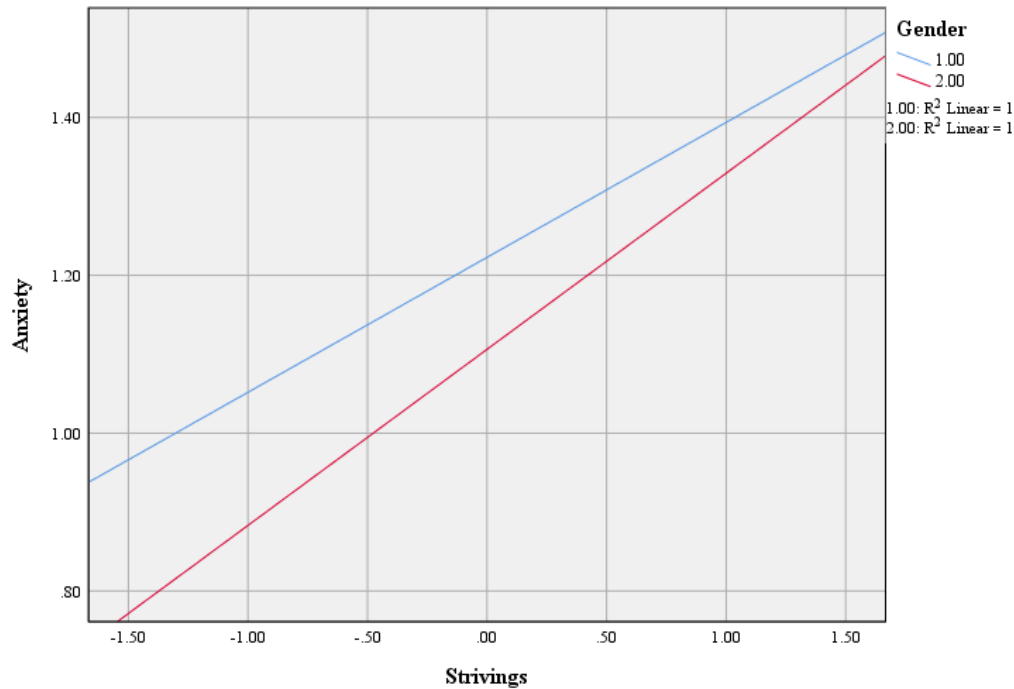
Model
      coeff      se      t      p      LLCI      ULCI
constant    1.3394    .1855    7.2206    .0000    .9725    1.7063
Striving     .1189    .1702    .6986    .4860   -.2177    .4555
Gender      -.1165    .1171   -.9955    .3213   -.3481    .1150
Int_1        .0521    .1082    .4818    .6307   -.1619    .2662

Product terms key:
Int_1      :      Striving x      Gender

Test(s) of highest order unconditional interaction(s):
      R2-chng      F      df1      df2      p
X*W      .0016      .2322    1.0000   133.0000   .6307
```

Figure 21

Interaction Between Perfectionistic Strivings and Gender Predicting Anxiety



Note. Gender was coded as 1 = Male, 2 = Female. The slopes represent the effects of perfectionistic strivings on anxiety at each level of gender.

A moderation analysis was conducted to investigate whether gender moderates the relationship between perfectionistic strivings and anxiety. The initial regression model, which included the centered independent variable (perfectionistic strivings) and the moderator (gender), explained 9.3% of the variance in anxiety, $R^2 = .093$, $F(3, 133) = 4.53$, $p = .004$. However, neither perfectionistic strivings ($B = 0.119$, $SE = 0.172$, $t = 0.70$, $p = .486$) nor gender ($B = -0.117$, $SE = 0.117$, $t = -.996$, $p = .321$) were significant individual predictors of anxiety. In the second step, the interaction term (Perfectionistic Strivings $\times$ Gender) was added to the model. This interaction did not explain a significant increase in variance in anxiety, $\Delta R^2 = .002$, $F(1, 133) = 0.23$, $p = .631$. The interaction effect was also not significant ($B = 0.052$, $SE = 0.108$, $t = 0.48$, $p = .631$). Although the interaction plot (see Figure 21) displays visually

distinguishable slopes for males and females, with females showing a slightly steeper positive relationship between perfectionistic strivings and anxiety, this difference was not statistically significant. Thus, the null hypothesis is accepted, and gender does not significantly moderate the relationship between perfectionistic strivings and anxiety.

4.7.4 Moderating Role of Gender in the Relationship Between Perfectionistic Concerns and Anxiety

Hypothesis 23: Gender significantly moderates the relationship between perfectionistic concerns and anxiety.

Null hypothesis (H_0): Gender does not significantly moderate the relationship between perfectionistic concerns and anxiety.

Alternative hypotheses (H_1): Gender significantly moderates the relationship between perfectionistic concerns and anxiety.

Figure 22

Moderation Analysis of the Effect of Perfectionistic Concerns on Anxiety with Gender as a Moderator

```
Model: 1
  Y: Anxiety
  X: Concerns
  W: Gender

Sample
Size: 137

*****

OUTCOME VARIABLE:
Anxiety

Model Summary

      R      R-sq      MSE      F      df1      df2      p
    .5991    .3590    .3221   24.8256    3.0000   133.0000   .0000

Model

      coeff      se      t      p      LLCI      ULCI
constant    1.2071    .1537    7.8528    .0000    .9031    1.5112
Concerns     .1631    .1247    1.3081    .1931   -.0835    .4098
Gender     -.0243    .0970   -.2505    .8026   -.2162    .1676
Int_1       .1079    .0774    1.3935    .1658   -.0452    .2609

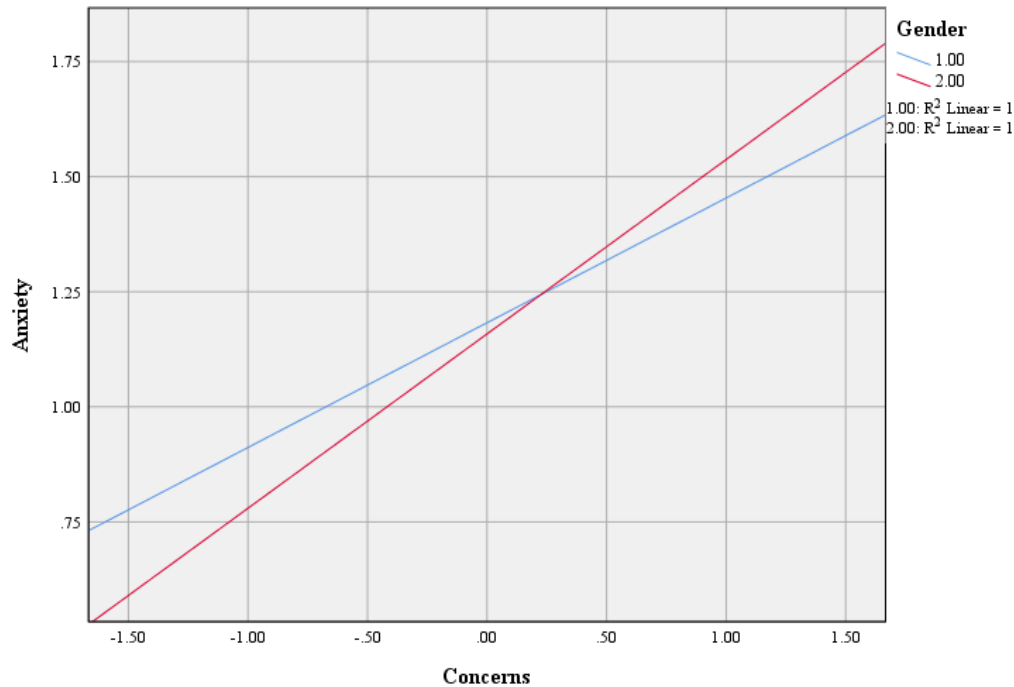
Product terms key:
Int_1      :      Concerns x      Gender

Test(s) of highest order unconditional interaction(s):

      R2-chng      F      df1      df2      p
X*W      .0094    1.9419    1.0000   133.0000   .1658
```

Figure 23

Interaction Between Perfectionistic Concerns and Gender Predicting Anxiety



Note. Gender was coded as 1 = Male, 2 = Female. The slopes represent the effects of perfectionistic concerns on anxiety at each level of gender.

A moderation analysis was conducted to investigate whether gender moderates the relationship between perfectionistic concerns and anxiety. The initial regression model, which included the centered independent variable (perfectionistic concerns) and the moderator (gender), explained 35.9% of the variance in anxiety, $R^2 = .359$, $F(3, 133) = 24.83$, $p < .001$. However, neither perfectionistic concerns ($B = 0.163$, $SE = 0.125$, $t = 1.31$, $p = .193$) nor gender ($B = -0.024$, $SE = 0.097$, $t = -0.25$, $p = .803$) were significant individual predictors of anxiety. In the second step, the interaction term (Perfectionistic Concerns $\times$ Gender) was added to the model. This interaction did not explain a significant increase in variance in anxiety, $\Delta R^2 = .009$, $F(1, 133) = 1.94$, $p = .166$. The interaction effect was also not significant ($B = 0.108$, $SE = 0.077$, $t = 1.39$, $p = .166$). Although the interaction plot in Figure 23 shows different slopes for

males and females, with females exhibiting a slightly steeper positive relationship between perfectionistic concerns and anxiety, this difference was not statistically significant. Thus, the null hypothesis (H_0) is accepted, and gender does not significantly moderate the relationship between perfectionistic concerns and anxiety.

4.7.5 Moderating Role of Gender in the Relationship Between Perfectionistic Strivings and Burnout Core Symptoms

Hypothesis 24: Gender significantly moderates the relationship between perfectionistic strivings and burnout core symptoms.

Null hypothesis (H_0): Gender does not significantly moderate the relationship between perfectionistic strivings and burnout core symptoms.

Alternative hypotheses (H_1): Gender significantly moderates the relationship between perfectionistic strivings and burnout core symptoms.

Figure 24

Moderation Analysis of the Effect of Perfectionistic Strivings on Core Symptoms with Gender as a Moderator

```
Model: 1
  Y: Core
  X: Striving
  W: Gender

Sample
Size: 137

*****

OUTCOME VARIABLE:
Core

Model Summary

      R      R-sq      MSE      F      df1      df2      p
      .1918      .0368      .7231      1.6924      3.0000     133.0000      .1717

Model

      coeff      se      t      p      LLCI      ULCI
constant      2.6637      .2336     11.4016      .0000      2.2016      3.1258
Striving      -.1691      .2144     -.7889      .4315     -.5931      .2549
Gender         .0060      .1474      .0407      .9676     -.2856      .2977
Int_1         .1922      .1363      1.4101      .1608     -.0774      .4618

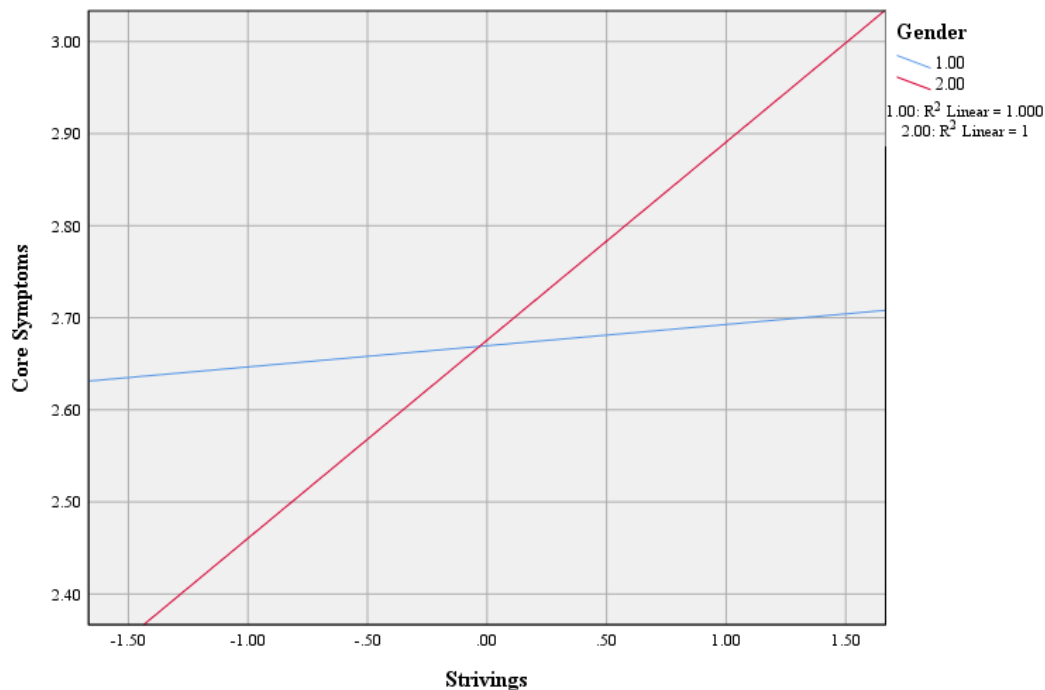
Product terms key:
Int_1      :      Striving x      Gender

Test(s) of highest order unconditional interaction(s):

      R2-chng      F      df1      df2      p
X*W      .0144      1.9883      1.0000     133.0000      .1608
```

Figure 25

Interaction Between Perfectionistic Strivings and Gender Predicting Burnout Core Symptoms



Note. Gender was coded as 1 = Male, 2 = Female. The slopes represent the effects of perfectionistic strivings on burnout core symptoms at each level of gender.

A moderation analysis was conducted to examine whether gender moderates the relationship between perfectionistic strivings and core burnout symptoms. The initial regression model, which included the centered independent variable (perfectionistic strivings) and the moderator (gender), explained 3.7% of the variance in core symptoms of burnout, $R^2 = .037$, $F(3, 133) = 1.69$, $p = .172$. However, neither perfectionistic strivings ($B = -0.169$, $SE = 0.214$, $t = -0.79$, $p = .431$) nor gender ($B = 0.006$, $SE = 0.147$, $t = 0.04$, $p = .968$) were significant individual predictors of core burnout symptoms. In the second step, the interaction term (Perfectionistic Strivings $\times$ Gender) was added to the model. This interaction did not explain a significant increase in variance in core symptoms, $\Delta R^2 = .014$, $F(1, 133) = 1.99$, $p = .161$. The interaction effect was also not significant ($B = 0.192$, $SE = 0.136$, $t = 1.41$, $p = .161$).

Although the interaction plot (see Figure 25) indicates a visibly steeper positive slope for females compared to males, with females exhibiting a stronger positive relationship between strivings and core burnout symptoms, this interaction was not statistically significant. Therefore, the null hypothesis is accepted (H_0), indicating that gender does not significantly moderate the relationship between perfectionistic strivings and burnout core symptoms.

4.7.6 Moderating Role of Gender in the Relationship Between Perfectionistic Concerns and Burnout Core Symptoms

Hypothesis 25: Gender significantly moderates the relationship between perfectionistic concerns and burnout core symptoms.

Null hypothesis (H_0): Gender does not significantly moderate the relationship between perfectionistic concerns and burnout core symptoms.

Alternative hypotheses (H_1): Gender significantly moderates the relationship between perfectionistic concerns and burnout core symptoms.

Figure 26

Moderation Analysis of the Effect of Perfectionistic Concerns on Core Symptoms with Gender as a Moderator

```
Model: 1
  Y: Core
  X: Concerns
  W: Gender

Sample
Size: 137

*****

OUTCOME VARIABLE:
Core

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .5421      .2939      .5301     18.4535      3.0000     133.0000      .0000

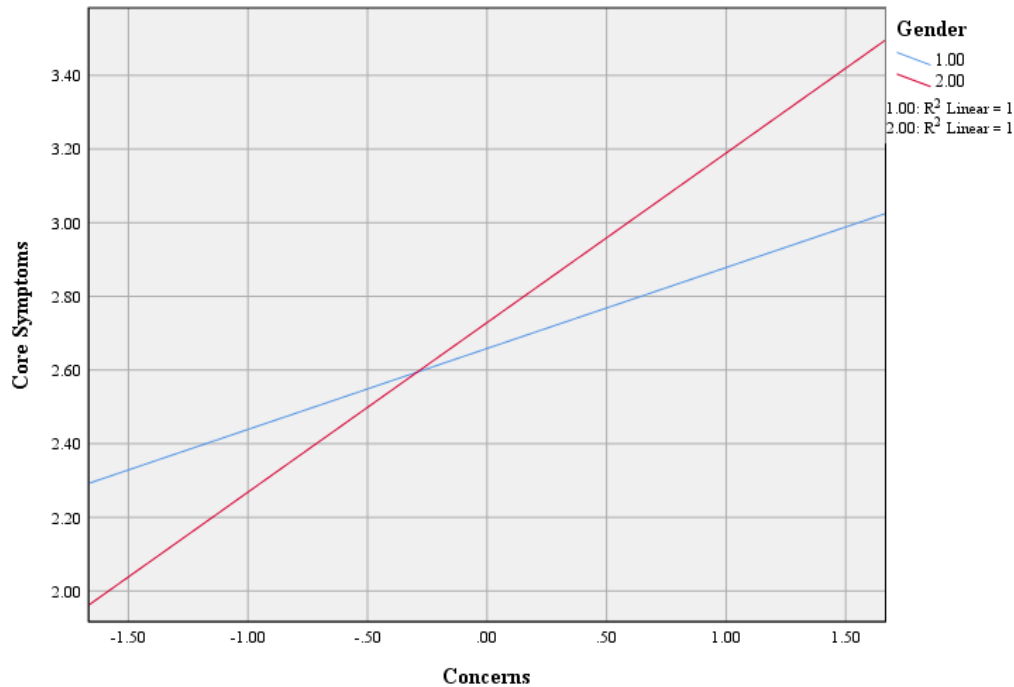
Model
      coeff      se      t      p      LLCI      ULCI
constant      2.5883      .1972     13.1254      .0000      2.1983      2.9784
Concerns      -.0206      .1600     -.1289      .8976     -.3371      .2959
Gender         .0703      .1244      .5651      .5730     -.1758      .3165
Int_1         .2405      .0993      2.4226      .0168      .0441      .4369

Product terms key:
Int_1      :      Concerns x      Gender

Test(s) of highest order unconditional interaction(s):
      R2-chng      F      df1      df2      p
X*W      .0312      5.8691      1.0000      133.0000      .0168
```

Figure 27

Interaction Between Perfectionistic Concerns and Gender Predicting Burnout Core Symptoms



Note. Gender was coded as 1 = Male, 2 = Female. The slopes represent the effects of perfectionistic concerns on burnout secondary complaints at each level of gender.

A moderation analysis was conducted to examine whether gender moderates the relationship between perfectionistic concerns and core symptoms of burnout. In the initial model, centered perfectionistic concerns and gender were entered as predictors. The model was significant and accounted for 29.4% of the variance in core symptoms, $R^2 = .2939$, $F(3, 133) = 18.45$, $p < .001$. Although neither perfectionistic concerns, $B = -0.0206$, $SE = 0.1600$, $t = -1.29$, $p = .8976$, nor gender, $B = 0.0703$, $SE = 0.1244$, $t = 0.57$, $p = .5730$, emerged as significant predictors individually, the interaction term (Perfectionistic Concerns $\times$ Gender) was statistically significant, $B = 0.2405$, $SE = 0.0993$, $t = 2.43$, $p = .0168$. The interaction term led to a significant increase in variance, $\Delta R^2 = .0312$, $F(1, 133) = 5.87$, $p = .0168$. As shown in Figure 27, the interaction plot indicates that the relationship between perfectionistic concerns

and core symptoms differs by gender, with a steeper slope observed for females, suggesting a stronger positive relationship. These results support the alternative hypothesis (H_1) that gender significantly moderates the relationship between perfectionistic concerns and core symptoms of burnout.

4.7.7 Moderating Role of Gender in the Relationship Between Perfectionistic Strivings and Burnout Secondary Complaints

Hypothesis 26: Gender significantly moderates the relationship between perfectionistic strivings and burnout secondary complaints.

Null hypothesis (H_0): Gender does not significantly moderate the relationship between perfectionistic strivings and burnout secondary complaints.

Alternative hypotheses (H_1): Gender significantly moderates the relationship between perfectionistic strivings and burnout secondary complaints.

Figure 28

Moderation Analysis of the Effect of Perfectionistic Strivings on Secondary Complaints with Gender as a Moderator

```
Model: 1
  Y: Complain
  X: Striving
  W: Gender

Sample
Size: 137

*****

OUTCOME VARIABLE:
  Complain

Model Summary
      R      R-sq      MSE      F      df1      df2      p
    .1136    .0129    .5912    .5800    3.0000   133.0000   .6291

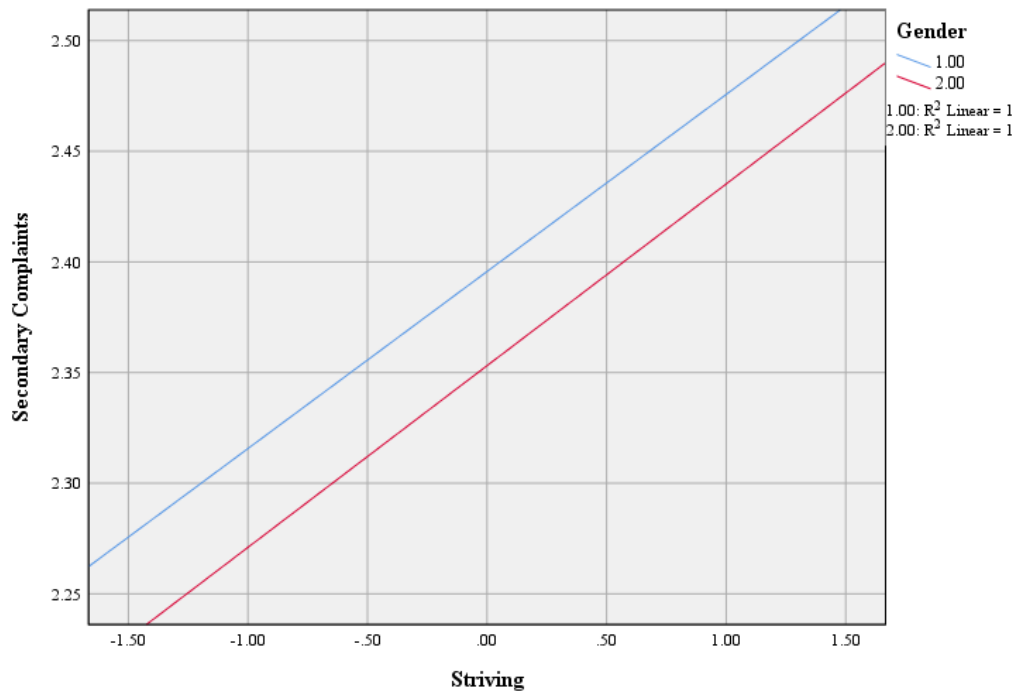
Model
      coeff      se      t      p      LLCI      ULCI
constant    2.4382    .2112   11.5421   .0000    2.0204    2.8561
Striving     .0778    .1938    .4016   .6886   -.3055    .4612
Gender     -.0425    .1333   -.3191   .7501   -.3063    .2212
Int_1       .0021    .1232    .0174   .9862   -.2416    .2459

Product terms key:
Int_1      :      Striving x      Gender

Test(s) of highest order unconditional interaction(s):
      R2-chng      F      df1      df2      p
X*W      .0000      .0003      1.0000   133.0000   .9862
```

Figure 29

Interaction Between Perfectionistic Strivings and Gender Predicting Burnout Secondary Complaints



Note. Gender was coded as 1 = Male, 2 = Female. The slopes represent the effects of perfectionistic strivings on burnout secondary complaints at each level of gender.

A moderation analysis was conducted to examine whether gender moderates the relationship between perfectionistic strivings and secondary complaints of burnout. In the initial model, which included centered perfectionistic strivings and gender, the predictors accounted for 1.3% of the variance in secondary complaints, $R^2 = .0129$, $F(3, 133) = 0.58$, $p = .629$, indicating a non-significant model. Neither perfectionistic strivings, $B = 0.0778$, $SE = 0.1938$, $t = 0.4016$, $p = .6886$, nor gender, $B = -0.0425$, $SE = 0.1333$, $t = -0.3191$, $p = .7501$, existed as significant predictors of secondary complaints. In the second model, the interaction term (Perfectionistic Strivings $\times$ Gender) was included, but it did not significantly improve the model fit, $\Delta R^2 = 0.0000$, $F(1, 133) = 0.0003$, $p = 0.9862$. The interaction term was also non-

significant, $B = 0.0021$, $SE = 0.1232$, $t = 0.0174$, $p = .9862$. Although the interaction plot (see Figure 29) shows slightly different slopes for males and females, with both showing positive trends, the differences are minimal and statistically non-significant. Therefore, the null hypothesis is accepted (H_0), indicating that gender does not significantly moderate the relationship between perfectionistic strivings and burnout secondary symptoms.

4.7.8 Moderating Role of Gender in the Relationship Between Perfectionistic Concerns and Burnout Secondary Complaints

Hypothesis 25: Gender significantly moderates the relationship between perfectionistic concerns and burnout secondary complaints.

Null hypothesis (H_0): Gender does not significantly moderate the relationship between perfectionistic concerns and burnout secondary complaints.

Alternative hypotheses (H_1): Gender significantly moderates the relationship between perfectionistic concerns and burnout secondary complaints.

Figure 30

Moderation Analysis of the Effect of Perfectionistic Concerns on Secondary Complaints with Gender as a Moderator

```
Model: 1
  Y: Complain
  X: Concerns
  W: Gender

Sample
Size: 137

*****

OUTCOME VARIABLE:
  Complain

Model Summary
      R      R-sq      MSE      F      df1      df2      p
    .3339    .1115    .5322    5.5644    3.0000   133.0000   .0013

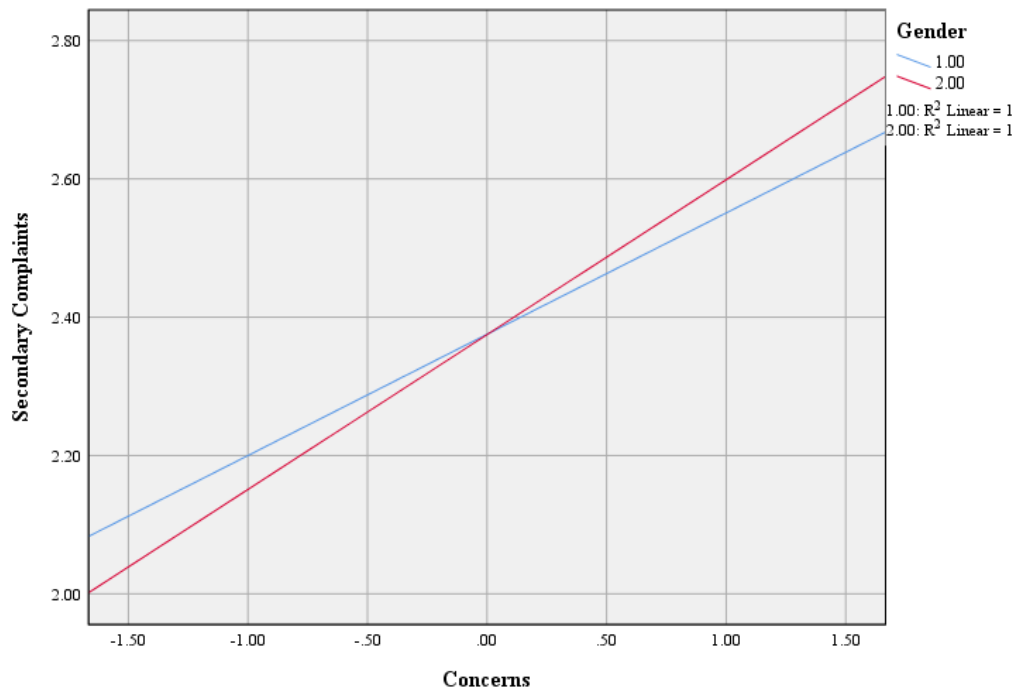
Model
      coeff      se      t      p      LLCI      ULCI
constant    2.3760    .1976   12.0252   .0000    1.9852    2.7668
Concerns     .1268    .1603     .7912   .4302   -.1903    .4439
Gender     -.0005    .1247    -.0044   .9965   -.2472    .2461
Int_1       .0486    .0995     .4883   .6261   -.1482    .2454

Product terms key:
Int_1      :      Concerns x      Gender

Test(s) of highest order unconditional interaction(s):
      R2-chng      F      df1      df2      p
X*W      .0016      .2385      1.0000   133.0000   .6261
```

Figure 31

Interaction Between Perfectionistic Concerns and Gender Predicting Burnout Secondary Complaints



Note. Gender was coded as 1 = Male, 2 = Female. The slopes represent the effects of perfectionistic concerns on burnout secondary complaints at each level of gender.

A moderation analysis was conducted to investigate whether gender moderates the relationship between perfectionistic concerns and secondary complaints of burnout. In the initial model, which included centered perfectionistic concerns and gender, the predictors accounted for 11.2% of the variance in secondary complaints, $R^2 = .1115$, $F(3, 133) = 5.56$, $p = .0013$, indicating a statistically significant overall model. However, neither perfectionistic concerns, $B = 0.1268$, $SE = 0.1603$, $t = 0.7912$, $p = .4302$, nor gender, $B = -0.0005$, $SE = 0.1247$, $t = -0.0044$, $p = .9965$, showed significant predictors of secondary complaints. In the second step, the interaction term (Perfectionistic Concerns $\times$ Gender) was included in the model but did not significantly improve model fit, $\Delta R^2 = .0016$, $F(1, 133) = 0.2385$, $p = .6261$. The

interaction term was also non-significant, $B = 0.0486$, $SE = 0.0995$, $t = 0.4883$, $p = .6261$. Although the interaction plot in Figure 31 depicts slightly different slopes for males and females, both trends are positive and highly similar. These differences are minimal and statistically non-significant. Therefore, the null hypothesis (H_0) is accepted. The result indicates that gender does not significantly moderate the relationship between perfectionism and secondary complaints of burnout.

4.8 Summary

In summary, this chapter presented the results of the descriptive and inferential analyses conducted to examine the relationships among perfectionism, academic performance, anxiety, and burnout, with gender as a moderating variable. The summary of hypothesis testing is presented below to highlight the key findings.

Table 44

Summary of Hypothesis Testing

Hypothesis Statement	Test	Results
There is a significant gender difference in perfectionistic strivings among undergraduate students.	Independent samples t-test	Accepted
There is a significant gender difference in perfectionistic concerns among undergraduate students.	Independent samples t-test	Rejected
There is a significant gender difference in academic performance among undergraduate students.	Independent samples t-test	Rejected

Hypothesis Statement	Test	Results
There is a significant gender difference in anxiety among undergraduate students.	Independent samples t-test	Rejected
There is a significant gender difference in burnout among undergraduate students.	Independent samples t-test	Rejected
There is a significant relationship between perfectionistic strivings and academic performance among undergraduate students.	Pearson correlation	Accepted
There is a significant relationship between perfectionistic concerns and academic performance among undergraduate students.	Pearson correlation	Rejected
There is a significant relationship between perfectionistic strivings and anxiety among undergraduate students.	Pearson correlation	Accepted
There is a significant relationship between perfectionistic concerns and anxiety among undergraduate students.	Pearson correlation	Accepted
There is a significant relationship between perfectionistic strivings and burnout among undergraduate students.	Pearson correlation	Rejected
There is a significant relationship between perfectionistic concerns and burnout among undergraduate students.	Pearson correlation	Accepted

Hypothesis Statement	Test	Results
Perfectionistic strivings significantly predict academic performance among undergraduate students.	Multiple Linear Regression	Accepted
Perfectionistic concerns significantly predict academic performance among undergraduate students.	Multiple Linear Regression	Accepted
Perfectionistic strivings significantly predict anxiety among undergraduate students.	Multiple Linear Regression	Rejected
Perfectionistic concerns significantly predict anxiety among undergraduate students.	Multiple Linear Regression	Accepted
Perfectionistic strivings significantly predict burnout core symptoms among undergraduate students.	Multiple Linear Regression	Accepted
Perfectionistic concerns significantly predict burnout core symptoms among undergraduate students.	Multiple Linear Regression	Accepted
Perfectionistic strivings significantly predict burnout secondary complaints among undergraduate students.	Multiple Linear Regression	Rejected
Perfectionistic concerns significantly predict burnout secondary complaints among undergraduate students.	Multiple Linear Regression	Accepted

Hypothesis Statement	Test	Results
Gender significantly moderates the relationship between perfectionistic strivings and academic performance.	Moderation analysis	Rejected
Gender significantly moderates the relationship between perfectionistic concerns and academic performance.	Moderation analysis	Rejected
Gender significantly moderates the relationship between perfectionistic strivings and anxiety.	Moderation analysis	Rejected
Gender significantly moderates the relationship between perfectionistic concerns and anxiety.	Moderation analysis	Rejected
Gender significantly moderates the relationship between perfectionistic strivings and burnout core symptoms.	Moderation analysis	Rejected
Gender significantly moderates the relationship between perfectionistic concerns and burnout core symptoms.	Moderation analysis	Accepted
Gender significantly moderates the relationship between perfectionistic strivings and burnout secondary complaints.	Moderation analysis	Rejected
Gender significantly moderates the relationship between perfectionistic concerns and burnout secondary complaints.	Moderation analysis	Rejected

CHAPTER 5

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter offers an in-depth discussion of the study's findings about the proposed hypotheses. The findings are analysed to determine how perfectionistic strivings and concerns relate to academic achievement, anxiety, and burnout among undergraduate students, with gender serving as a moderator. Key theme areas, including gender differences, correlational relationships, predictive analyses, and moderating effects, are employed to structure the discussion. The statistical results are interpreted in each area about the research questions and existing literature. The chapter ends with a summary of the key findings, theoretical and practical implications, and recommendations for further studies.

5.1 Gender Differences in Perfectionism, Academic Performance, Anxiety and Burnout

The discussion related to gender differences in the main study variables, including perfectionistic strivings, perfectionistic concerns, academic performance, anxiety, and burnout (both core symptoms and secondary complaints), is covered in this section. Independent samples t-tests were used to investigate if there were any significant differences between male and female undergraduate students on these psychological and academic variables. The findings provide the foundation for understanding gender as a potential moderating factor in subsequent sections.

5.1.1 Gender Differences in Perfectionistic Strivings

The findings revealed a significant gender difference in perfectionistic strivings, $t(135) = -2.00, p = .047$, with female undergraduate students ($M = 5.16, SD = 1.06$) reporting higher levels of perfectionistic strivings than the male students ($M = 4.79, SD = 1.09$). This finding

suggests that female students in this sample are more likely to set personal standards and engage in goal-directed behaviour associated with perfectionistic strivings.

However, this finding is inconsistent with several previous studies. Studies have consistently shown that male students were more likely to exhibit higher levels of perfectionistic strivings, while female students were more commonly associated with perfectionistic concerns. For example, the study by Musumeci et al. (2022) found that perfectionistic concerns defined 63% of female perfectionists, while 62% of male perfectionists were classified under the striving dimension. These results are supported by Sand et al. (2021), who found that women scored higher levels on self-critical tendencies linked to perfectionistic concerns. In contrast, men were more likely to exhibit striving-oriented behaviours, often linked to perfectionistic strivings. These gender patterns have often been attributed to traditional role socialisation, in which males are encouraged to pursue achievement and assertiveness. In contrast, females are more likely to internalise self-doubt and fear of failure.

The current findings suggest a shift in how perfectionistic strivings manifest themselves by gender. Although perfectionistic strivings are generally seen as adaptive, their purpose and emotional cost might vary depending on the gendered context in which they arise. A higher percentage of female students appear to encounter unique academic and social challenges (Wube et al., 2024), and the increasing internal and external demands placed on them to excel academically and professionally may be a contributing factor. Institutional cultures that hold women to higher standards while offering fewer accommodations than their male counterparts may reinforce these pressures, leading to increased workloads and heightened stress levels (Phillips et al., 2023). Consequently, female students may set higher personal goals to maintain their identity, self-esteem, and social acceptance in high-achieving academic environments. Additionally, competitive grading procedures, performance-based reward schemes, and family expectations may also heighten their desire to achieve.

5.1.2 Gender Differences in Perfectionistic Concerns

The results of this study revealed no statistically significant gender difference in perfectionistic concerns, $t(135) = 0.28, p = .777$, with male students ($M = 4.23, SD = 1.23$) and female students ($M = 4.17, SD = 1.30$) reporting comparable levels. This suggests that the levels of perfectionistic concerns, which include fear of making mistakes, concerns about others' evaluations, and doubts about personal performance, are comparable for male and female undergraduate students in this sample.

This finding contrasts with several previous studies, which have consistently reported higher levels of perfectionistic concerns among female students. For example, Musumeci et al. (2022) found that 63% of female perfectionists were characterised by perfectionistic concerns, compared to 38% of male perfectionists. Additionally, Sand et al. (2021) discovered that women had significantly greater levels of perfectionistic concerns, which are frequently linked to less favourable outcomes such as burnout, symptoms of depression, failure-related anxiety, emotional exhaustion, and low self-esteem (Kuusi et al., 2024). Gender socialisation processes are often associated with these behaviours, where women are more likely to internalise expectations, desire acknowledgement, and feel afraid of failing (Borgonovi & Han, 2020).

However, the lack of a gender difference in the current study may suggest that men and women perceive perfectionistic concerns more similarly. One possible explanation is that male students are increasingly exhibiting characteristics that were formerly more prevalent in female students, such as internalised performance pressure, fear of failure, and sensitivity to academic evaluation. Male students may also exhibit perfectionistic concern patterns because of the high expectations placed on all students in current academic environments, regardless of gender, especially in settings where academic identity is a strong predictor of academic performance and perseverance (Yukhymenko-Lescroart, 2021)

Additionally, contextual factors unique to the academic environment may influence this pattern. Students in highly competitive educational institutions face common academic stressors, including scholarship retention, grade-based competition, and high parental expectations. These pressures may increase the levels of perfectionistic concerns in both males and females. Furthermore, cultural norms in the Malaysian setting, which may prioritise academic success, emotional restraint, and family honour, could further foster internalised pressure and fear of underperformance among students, regardless of gender.

5.1.3 Gender Differences in Academic Performance

The results of this study revealed no statistically significant gender difference in academic performance among undergraduate students, $t(135) = -1.96$, $p = .052$, although female students ($M = 3.56$, $SD = 0.23$) had a slightly higher mean CGPA than male students ($M = 3.48$, $SD = 0.23$). Since the p -value exceeded the standard threshold of .05, the null hypothesis was retained, indicating no significant difference in academic performance between male and female students.

This finding is consistent with some previous research, which suggests that academic performance in tertiary education is becoming increasingly gender-balanced. In an earlier study by Clemente-Suárez et al. (2024), female students tend to perform better than male students, resulting in greater academic success and reduced stress due to characteristics such as higher conscientiousness. However, recent findings suggest that gender differences in academic achievement have narrowed or even disappeared in certain academic contexts (Montolio & Taberner, 2021). Individual-level factors may have a greater impact on performance outcomes than gender alone, particularly when male and female students have equal access to academic resources, support networks, and assessment standards.

The similarity may be explained by the fact that both male and female students today face similar academic demands and pressures, including grade-based examinations, competitive scholarship requirements, and pressure from family or society to perform well. In these settings, personal characteristics and contextual elements may have a greater impact on academic achievement than gender alone. According to Kuśnierz et al. (2020), intelligence and conscientiousness function as mediators in the relationship between intrinsic motivation and academic success. Furthermore, the structural barriers that have historically contributed to gender gaps in academic outcomes may be mitigated if all students have practically equal access to academic resources and institutional support (Nkosi & Maphalala, 2025).

The cultural and educational context in which this study was carried out must also be taken into consideration. This is particularly relevant in the Malaysian context, where academic performance is highly valued across diverse student groups. According to Masnan et al. (2025), students' academic success in Malaysian higher education settings is significantly influenced by factors such as self-esteem, a strong sense of purpose, and regular class attendance. Male and female students are likely to be similarly impacted by these behavioural and internal factors. Furthermore, students of any gender may face similar pressures due to shared expectations from peers, family, and educational institutions. Together with equal access to learning materials and support networks, these factors could contribute to explaining why students exhibit comparable academic behaviours and performance results.

5.1.4 Gender Differences in Anxiety

The results of this study showed no statistically significant gender difference in anxiety levels among undergraduate students, $t(135) = 0.37, p = .714$. Female students reported a mean score of 1.15 ($SD = 0.76$), while male students reported a slightly higher mean score of 1.19 ($SD = 0.65$). Since the p -value exceeded the .05 threshold, the null hypothesis was retained,

indicating that the male and female undergraduate students in this sample experienced similar levels of anxiety.

This result stands in contrast to several other studies that consistently found that female students had higher anxiety levels. For instance, research by Keyes & Platt (2023) reported that internalising disorders, such as anxiety, are more common in women. Farhane-Medina et al. (2022) attributed this to a combination of biological factors, including genetic predispositions, brain structure, and hormonal fluctuations. Similarly, Cotner et al. (2020) found that female students reported higher levels of exam anxiety than their male counterparts, although this anxiety was a weak predictor of academic performance.

However, the current study's lack of a significant gender difference may suggest a shift toward more evenly distributed emotional experiences for all students, regardless of gender. This might reflect the growing emotional and academic expectations that competitive higher education institutions place on all students. According to Mishra et al. (2023), male and female students experience similar levels of stress in their academic and occupational domains when exposed to similar stressors, such as heavy academic workloads, uncertain career paths, and high expectations for academic success.

Furthermore, institutional and cultural factors specific to the Malaysian context may shape how anxiety is experienced and expressed. Both genders highly value academic success, and students typically experience pressure from peers, family, and educational institutions to maintain their strong academic standing. Additionally, male students may underreport anxiety symptoms due to stigma or gender norms that discourage emotional expression, which could contribute to the statistical similarities between both genders.

5.1.5 Gender Differences in Burnout

The findings of this study revealed no statistically significant gender differences in burnout, whether for core symptoms or secondary complaints. For core symptoms of burnout, female students reported a mean score of 2.72 ($SD = 0.90$), while male students reported a slightly lower mean of 2.67 ($SD = 0.81$), $t(135) = -0.34$, $p = .736$. Similarly, for secondary complaints, female students recorded a mean of 2.37 ($SD = 0.82$), compared to 2.38 ($SD = 0.71$) for male students, $t(135) = 0.10$, $p = .923$. As both p -values exceeded the .05 threshold, the null hypotheses were retained, indicating no significant gender differences in either burnout dimension among undergraduate students in this sample.

These results are not entirely consistent with previous studies, which have often reported that female students experience higher levels of burnout, particularly in psychological distress and emotional exhaustion. For instance, research by Fiorilli et al. (2022) revealed that female students had greater degrees of exhaustion, cognitive impairment, and emotional impairment compared to male students. Similarly, Kilic et al. (2021) observed that women were more vulnerable to emotional exhaustion in medical education settings, with cynicism and mental fatigue presenting more prominently. These differences can occasionally be attributed to a high workload and other work-life issues, which have led to the need for modifications to academic and organisational contexts and curriculum (Thun-Hohenstein et al., 2020).

However, the absence of gender differences in the current study suggests that burnout symptoms may affect both male and female students equally, especially in highly demanding academic settings. All students in competitive university environments are likely to encounter similar pressures, including time constraints, continuous assessments, and performance-based assessments, which can cause comparable emotional and cognitive exhaustion in both genders. This convergence may also be a result of the workloads and academic responsibilities of male and female students becoming more evenly distributed in contemporary university life.

Furthermore, the cultural emphasis on academic achievement in Malaysia may influence how burnout is perceived and reported. Peers, family, and institutional expectations may put similar stresses on students of both genders to maintain excellent performance in school. These common demands may explain the similar experiences of core symptoms (such as fatigue and overload), and secondary complaints (like sleep disruptions, irritability, or attention issues) observed in both male and female students.

5.2 Relationships Between Perfectionism and Mental Health Outcomes

The findings on the relationships between the two dimensions of perfectionism, including perfectionistic strivings and concerns, and the three main outcome variables, such as academic performance, anxiety, and burnout, are presented in this section. The study investigated the relationship between students' academic and mental health and the strivings and concerns dimension of perfectionism using Pearson correlation analysis. This section aims to differentiate between the significance of perfectionistic strivings and concerns in predicting academic achievement and mental health by looking at the direction and degree of these correlations. The results are discussed in relation to earlier studies, with a focus on how certain aspects of perfectionism may function as risk or protective factors in a university setting.

5.2.1 Perfectionism and Academic Performance

The results of the Pearson correlation analysis revealed a statistically significant positive relationship between perfectionistic strivings and academic performance ($r = .185$, $p = .030$), indicating that students with higher levels of perfectionistic strivings tended to achieve higher CGPA scores. In contrast, no significant relationship was found between perfectionistic concerns and academic performance ($r = -.145$, $p = .091$), suggesting that perfectionistic concerns did not significantly influence students' academic performance in this sample.

These findings are consistent with earlier studies that distinguish between perfectionistic strivings and concerns. Perfectionism may be a trait that positively promotes academic achievements because it is frequently associated with goal setting, perseverance, and a high level of academic engagement (Stoeber, 2020). Even in demanding academic settings, intrinsic motivation and self-efficacy further support the application of successful learning strategies (Üner et al., 2020). This suggests that students who are driven by mastery and personal development are better able to control their learning styles and maintain their resilience. Students who hold themselves to high standards and pursue excellence are more likely to employ efficient study techniques, manage their study habits effectively, and stay motivated, all of which can enhance their academic performance.

However, perfectionistic concerns, characterised by excessive self-criticism, fear of failure, and persistent doubts, were not significantly related to academic performance. This finding is consistent with prior research indicating that perfectionistic concerns do not always impair grades or academic achievement, even though they are always linked to emotional distress and increased academic anxiety. According to Ståhlberg et al. (2019), students who exhibit high levels of perfectionistic concerns and strong academic self-worth contingencies are more likely to accomplish achievement goals, indicating that academic motivation is influenced by self-worth. Thus, even if students are experiencing internal dissatisfaction and disappointment, students with high levels of perfectionistic concerns might still be able to achieve high academic achievement.

Overall, these findings emphasise the importance of distinguishing between perfectionistic strivings and concerns. While perfectionistic strivings can serve as a driving force that supports academic achievement, perfectionistic concerns may be a greater psychological strain than a direct academic barrier to academic performance. These results support the idea that not all perfectionistic tendencies are maladaptive. Some may serve as

adaptive mechanisms when they are aligned with internalised, positive goals rather than fear-driven pressures.

5.2.2 Perfectionism and Anxiety

The Pearson correlation analysis revealed significant positive relationships between both perfectionistic strivings and perfectionistic concerns with anxiety. Specifically, perfectionistic strivings were positively correlated with anxiety ($r = .29, p < .01$), indicating that students who endorsed higher levels of perfectionistic strivings also tended to experience higher levels of anxiety. A statistically stronger positive correlation was found between perfectionistic concerns and anxiety ($r = .59, p < .001$), suggesting that students with higher levels of perfectionistic concerns experienced substantially more anxiety symptoms.

The complex relationship between perfectionism and anxiety has been demonstrated in these studies. The significant relationship between perfectionistic strivings and anxiety in this study suggests that perfectionistic strivings may have psychological costs, despite initially appearing beneficial, as they are frequently viewed as adaptive and associated with achievement motivation and favourable educational outcomes (Lee & Anderman, 2020). According to a previous study by Kuusi et al. (2024), perfectionistic students exhibited higher levels of burnout, anxiety, and depressive symptoms even when their involvement and level of perfectionistic strivings were high. In high-demanding academic settings, students who strive for excellence may set high internal standards and become overly focused on achieving their goals. This can result in increased pressure, performance-related anxiety, and anticipatory stress.

The significantly stronger relationship between perfectionistic concerns and anxiety lends support to a substantial body of research that finds perfectionistic concerns as a risk factor for psychopathology in young people (Lunn et al., 2023). Internalising symptoms like

depression, anxiety, and chronic stress are frequently linked to perfectionistic concerns, which are characterised by a fear of failing, sensitivity to mistakes, and doubts about one's adequacy. These students may perceive academic difficulties as risks to their self-esteem, which leads to ongoing anxiety, self-doubt, and the fear of negative evaluation.

Overall, the findings highlight the emotional vulnerabilities connected to both dimensions of perfectionism. Even though perfectionistic goals might be adaptive in terms of performance and motivation, their relationship with anxiety emphasises how crucial it is to delve into the underlying causes and motivation of perfectionistic behaviour. The results further highlight the psychological burden that perfectionistic concerns cause and the substantial correlation between them and elevated anxiety levels among undergraduates (Cooper, 2023).

5.2.3 Perfectionism and Burnout

The Pearson correlation analysis revealed a strong, statistically significant positive relationship between perfectionistic concerns and core symptoms of burnout ($r = .511, p < .001$), indicating that students with higher levels of perfectionistic concerns were more likely to experience exhaustion, mental detachment, and both cognitive and emotional impairment. In contrast, no significant relationship was found between perfectionistic strivings and core burnout symptoms ($r = .150, p = .081$), suggesting that the pursuit of high standards alone does not predict the development of core burnout experiences in this sample.

This finding aligns with previous studies showing that perfectionistic concerns represent a maladaptive form of perfectionism and that they are related to academic burnout, depression, and poor psychological outcomes. These associations are often mediated by self-defeating behaviours such as procrastination, self-handicapping, and fear of failure (Chang et al., 2025). Students with high perfectionistic concerns frequently internalize external demands, overemphasize their mistakes, and harbour persistent doubts about their abilities, all of which

can contribute to emotional exhaustion and academic disengagement. The absence of a significant association between perfectionistic strivings and burnout supports the notion that striving, when not accompanied by harsh self-criticism, may be psychologically neutral or even protective in academic contexts. (Seong et al., 2021).

A similar pattern was observed in secondary symptoms of burnout, including difficulty concentrating, irritability, and sleep disturbances. While perfectionistic strivings were not statistically correlated ($r = .110$, $p = .20$), perfectionistic concerns were significantly and positively correlated with secondary complaints ($r = .332$, $p < .001$). This implies that even when academic failure is not present, students who exhibit high levels of perfectionistic concerns are more likely to experience the physical and cognitive symptoms of burnout.

These results are consistent with previous research, which has shown that both emotional and physical symptoms of stress are associated with perfectionistic concerns. For instance, Prestele et al. (2020) emphasized the relationship between perfectionistic concerns and behavioural indicators of burnout, such as sleep disturbances and impaired cognitive function. Students' mental and physical capabilities may be depleted by ongoing anxiety, fear of underperformance, and extreme internal pressure, which can affect their general well-being and academic performance. However, the same physiological or psychological stress does not seem to result from perfectionistic strivings, which are usually motivated by a desire for excellence rather than a fear of inadequacy.

The results show that while perfectionistic strivings appear unrelated to either emotional or physical symptoms of burnout, perfectionistic concerns are significant indicators of both emotional and physical symptoms of burnout. These findings reinforce the theoretical distinction between adaptive and maladaptive perfectionism, underscoring the need to address

the psychological and physical consequences of perfectionistic concerns among undergraduate students.

5.3 Predictive Roles of Perfectionistic Strivings and Concerns

This section uses multiple regression analyses to investigate the predictive power of the two dimensions of perfectionism, including perfectionistic concerns and perfectionistic strivings, on anxiety, academic performance, and burnout (core symptoms and secondary complaints). Regression analysis offers a more thorough insight into the extent to which each form of perfectionism individually contributes to the outcomes of interest. This part extends the understanding of perfectionism's dual nature as a psychological risk factor and a motivating element by determining which dimension is a better predictor of both academic performance and psychological distress. The results of previous research are analysed, emphasising both the theoretical and practical implications of perfectionism in higher education.

5.3.1 The Predictive Role of Perfectionism in Academic Performance

Multiple regression analysis was used to determine the extent to which perfectionistic strivings and concerns predict academic performance in undergraduate students. The overall regression model was statistically significant, $F(2, 134) = 9.84, p < .001$, indicating that the predictors accounted for a meaningful proportion of variance in CGPA. Both perfectionistic strivings ($\beta = .399, p < .001$) and perfectionistic concerns ($\beta = -.373, p < .001$) were significant predictors of academic performance.

These results suggest that the two aspects of perfectionism have opposing effects on predicting academic performance. A higher CGPA was positively predicted by perfectionistic strivings, suggesting that university students who exhibit stronger learning goal orientation also tend to report higher academic self-efficacy and are more likely to engage in feedback-seeking

behaviours, both of which have a long-term favourable effect on their academic performance (Lu et al., 2021). These findings are consistent with previous research that demonstrated the positive effects of effective study habits, such as time management, learning techniques, motivation, and a supportive academic environment, are key contributors to academic achievement in striving-oriented students (Reddy, 2025). Their proactive approach could improve their overall performance by supporting them in overcoming academic obstacles.

On the other hand, academic performance was negatively predicted by perfectionistic concerns, suggesting that students who constantly doubt their skills and fear making mistakes typically perform worse academically. This aligns with studies that link academic procrastination and perfectionistic concerns, finding that this type of procrastination has a negative correlation with academic accomplishment and study satisfaction and a positive correlation with test-related anxiety (Rshaid & Jaradat, 2025). These students might spend excessive time worrying about failing or seeking approval, which takes away from their ability to participate meaningfully in effective learning time.

The significant and conflicting contributions of both concerns and strivings show the complex nature of perfectionism in academic contexts. Perfectionism is not a homogeneous construct, but rather a multidimensional construct containing both adaptive and maladaptive traits that might have separate effects on academic performance. Depending on which motivational processes are more dominant, the detrimental effects of perfectionistic concerns might outweigh the positive effects of perfectionistic strivings in certain students when both dimensions co-occur.

Therefore, these findings highlight the importance of distinguishing between different aspects of perfectionism when predicting academic performance. While identifying and resolving maladaptive issues may help alleviate self-imposed pressure that hinders learning,

encouraging adaptive striving behaviours, such as setting high but achievable goals, may enhance academic achievement.

5.3.2 The Predictive Role of Perfectionism in Anxiety

Multiple regression analysis was used to investigate the predictive role of perfectionistic strivings and concerns in undergraduate students' anxiety levels. The overall regression model was statistically significant, $F(2, 134) = 36.51, p < .001$, indicating that the model accounted for a substantial proportion of the variance in anxiety. In the model, anxiety was strongly and significantly predicted by perfectionistic concerns ($\beta = .632, p < .001$), whereas anxiety was not significantly predicted by perfectionistic strivings ($\beta = -.071, p = .402$).

These findings suggest that perfectionistic concerns are a key contributing factor to heightened anxiety symptoms among university students. Increased psychological distress is substantially more likely to be experienced by students who express higher degrees of concern-based perfectionism, which includes heightened sensitivity to mistakes, self-doubt, and a persistent fear of failing. This result is in line with earlier studies that demonstrated a strong link between perfectionistic concerns and internalizing symptoms such as depression, anxiety, and emotional dysregulation (Tyler et al., 2020). Individuals with high concern scores may engage in maladaptive cognitive patterns, including excessive worry, negative self-appraisal, and persistent self-criticism, all of which exacerbate stress responses in academic and interpersonal contexts.

On the other hand, anxiety in this sample was not substantially predicted by perfectionistic strivings, although they are generally linked to achievement-oriented behaviours and high personal standards. The idea that perfectionistic striving may not always lead to anxiety if it is not accompanied by self-critical tendencies or fear-based motivation is supported by this lack of correlation. Students with high strivings may feel pressure to perform, but they

may handle this pressure more effectively and avoid internalizing it in a way that compromises their mental health.

As a result, the different predictive effects of perfectionistic strivings and concerns emphasize how crucial it is to comprehend the unique psychological processes that underlie each aspect of perfectionism. Although pursuing goals and assessing performance may be part of both aspects, only concern-driven perfectionism seems to be a direct cause of emotional pain. These results lend further support to the claim that students' mental health is seriously at risk due to perfectionistic concerns, which are a maladaptive thought pattern.

5.3.3 The Predictive Role of Perfectionism in Burnout

Multiple regression analysis was conducted to examine the extent to which perfectionistic strivings and concerns predict core symptoms of burnout among undergraduate students. The overall model was statistically significant, $F(2, 134) = 27.56, p < .001$, indicating that both predictors explained a substantial proportion of variance in core burnout symptoms. In the model, perfectionistic concerns emerged as a strong and significant positive predictor ($\beta = .633, p < .001$), while perfectionistic strivings were a significant negative predictor ($\beta = -.213, p = .018$).

These results imply that perfectionistic concerns are a major risk factor for burnout's core symptoms, which include emotional exhaustion, mental and cognitive impairment. Students with high levels of concern-based perfectionism frequently display excessive self-doubt, hypersensitivity to criticism, and a persistent fear of failure, all of which are known to lead to emotional exhaustion and disengagement in demanding academic settings (Chang et al., 2025). These people frequently associate academic achievement with their sense of self-worth, so failures or flaws can trigger disproportionate emotional distress, which eventually compounds into exacerbating burnout symptoms.

Interestingly, core burnout symptoms were strongly and negatively predicted by perfectionistic strivings, suggesting a possible protective role. Students who pursue high standards in a goal-directed, self-affirming way may exhibit greater resilience when coping with academic demands. This result is consistent with earlier studies that demonstrate that striving-oriented perfectionists are more likely to apply adaptive coping mechanisms, manage their workload well, and sustain engagement when they are not also experiencing high levels of perfectionistic concerns (Metallidou & Stamovlasis, 2020). The ability to set ambitious goals without harsh self-evaluation may help protect students from experiencing chronic academic stress and emotional depletion.

A separate regression model was used to investigate the predictive role of perfectionism on secondary burnout complaints, such as irritability, sleep disturbances, and concentration difficulties, from perfectionistic strivings and concerns. The model was statistically significant, $F(2, 134) = 9.08, p < .001$. Within this model, perfectionistic concerns were again a significant positive predictor ($\beta = .399, p < .001$), whereas perfectionistic strivings did not significantly predict these symptoms ($\beta = -.118, p = .233$).

These findings suggest that the consequences of perfectionistic concerns go beyond emotional manifestations and are linked to behavioural and physical signs of exhaustion. Students who are excessively concerned with their academic performance may have long-term stress reactions, which can interfere with sleep regulation, increase physical exhaustion, and difficulties with cognitive processes like concentration and reasoning. According to Sasser et al. (2021), disrupted sleep schedules and poor sleep efficiency are significantly linked to lower academic functioning and diminished mental clarity over time. Therefore, the psychological stress brought on by perfectionistic concerns may build up and show up as both emotional and physical symptoms.

The absence of a significant predictive role between strivings and secondary complaints implies that adaptive striving does not always affect the behavioural or physiological signs of stress, even though it may protect against emotional exhaustion. This supports the notion that motivational processes, not physical health outcomes, are the primary cause of perfectionistic strivings. Although high-achieving students may continue to be goal-oriented and productive, this does not ensure that they will be protected from the cumulative consequences of exhaustion, irritability, or sleep loss, particularly if they are under much stress from their workload and environment.

Overall, these results show how diverse dimensions of perfectionism predict burnout. Their characterization as a maladaptive type of perfectionism is further supported by the fact that perfectionistic concerns are a strong predictor of both core and secondary burnout symptoms. On the other hand, perfectionistic strivings showed a small yet significant protective effect on core burnout symptoms but were unrelated to physical or behavioural complaints. These findings underscore the importance of identifying students who exhibit high levels of perfectionistic concerns, as they may be at elevated risk of experiencing both emotional exhaustion and somatic symptoms of burnout.

5.4 Moderating Role of Gender

The relationship between perfectionism and three important mental health outcomes, including academic achievement, anxiety, and burnout, is investigated in this section, along with the moderating effect of gender. It specifically investigates whether male and female students have different relationships in terms of their strength or direction. Understanding gender as a potential moderator helps to highlight potential gender-specific vulnerabilities or resilience factors in the academic and psychological domains by shedding light on how perfectionistic concerns and strivings may affect students differently depending on their gender.

5.4.1 Moderating Effect of Gender on Academic Performance

The study employed moderation analysis to investigate if gender affects the degree of relationship between undergraduate students' academic performance and perfectionism (both strivings and concerns). The findings showed that neither the relationships between academic performance and perfectionistic concerns nor the relationship between academic performance and perfectionistic strivings was significantly moderated by gender.

These results imply that the impact of perfectionism's adaptive and maladaptive aspects on students' academic performance functions similarly for both sexes. Higher levels of perfectionistic concerns are linked to worse academic achievement. In comparison, higher levels of perfectionistic strivings are typically connected with better academic performance, regardless of the gender of the students. Gender does not significantly change these relationships in the current sample, as seen by the lack of a significant moderating effect.

This finding is in line with previous research that, when controlling for additional variables such as access to academic support and similar learning environments, found no compelling evidence of gender differences in the relationship between perfectionism and academic performance (Hassan et al., 2015). The impact of perfectionistic qualities on performance may be essentially independent of gender-based factors in higher education environments where academic expectations are consistently high for all students, regardless of gender.

5.4.2 Moderating Effect of Gender on Anxiety

This section investigated whether anxiety and the two dimensions of perfectionism, perfectionistic concerns and strivings, were influenced by gender in undergraduate students. To determine whether these relationships varied in direction or intensity between male and female students, a moderation analysis was performed.

The findings showed that neither the relationship between perfectionistic concerns and anxiety nor the relationship between perfectionistic strivings and anxiety was significantly moderated by gender. This implies that in the current sample, the emotional effects of both maladaptive and adaptive perfectionism on anxiety levels function similarly for both genders. Higher levels of perfectionistic concerns were linked to higher anxiety levels regardless of the student's gender. Still, once both predictors were added to the model at the same time, perfectionistic strivings did not significantly correlate with anxiety.

These results suggest that perfectionistic tendencies' contribution to emotional suffering, including anxiety, is not much influenced by gender. Given that both male and female students experience comparable internal and external demands to achieve, this may be a reflection of the increasingly universal nature of academic stress in higher education. As a result, anxiety associated to perfectionism can become an issue for all students rather than a weakness exclusive to one gender. Furthermore, when academic expectations are similar, there is no gender difference in the strength of these relationships, which suggests that the gender gap in anxiety expression has narrowed among university populations.

5.4.3 Moderating Effect of Gender on Burnout

This section investigated whether gender influenced the association between burnout symptoms, including core symptoms like mental exhaustion and emotional impairment, as well as secondary complaints such as difficulty sleeping and attention.

The analysis revealed that gender significantly moderated the relationship between perfectionistic concerns and core burnout symptoms, indicating that the strength of this relationship varied by gender. Specifically, the association was stronger among female students, suggesting that perfectionistic concerns are more likely to lead to emotional exhaustion and cognitive strain in women compared to men. This may reflect gender-specific vulnerability in

how internalised performance pressure is processed. Female students may be more prone to emotional overextension in high-demand academic contexts, particularly when self-critical perfectionism, characterised by fear of failure, excessive self-doubt, and concern over evaluation, is present. Prior research has shown that the female gender and anxiety proneness are associated with greater emotional distress in academic environments (Wuthrich et al., 2020), which may explain their heightened susceptibility to burnout in response to self-imposed academic stressors.

However, neither the relationship between the perfectionism dimension and secondary burnout complaints nor the relationship between burnout core symptoms and perfectionistic strivings was significantly moderated by gender. This implies that regardless of perfectionism type, burnout's behavioural and physical manifestations, such as trouble concentrating, impatience, or disturbed sleep, can occur similarly in both sexes. Furthermore, in this population, aiming for high standards by itself did not interact with gender to affect burnout results.

Overall, these findings suggest that although the majority of the relationships between perfectionism and burnout are similar for both sexes, female students who exhibit high levels of perfectionism may be especially vulnerable to the psychological effects of academic burnout. This emphasizes how critical it is to recognize and treat gender-based emotional sensitivity tendencies in groups of perfectionist students.

5.5 Summary of Key Findings

This study investigated the relationship between perfectionistic strivings and concerns with academic performance, anxiety, and burnout among undergraduate students, with gender acting as a moderating variable. According to the study, female students indicated statistically higher levels of perfectionistic strivings compared to male students. However, there were

no significant gender differences found in perfectionistic concerns, academic performance, anxiety, or burnout (including core symptoms and secondary complaints).

Secondly, a significant relationship between the two dimensions of perfectionism was found using Pearson correlation analysis. Anxiety and academic performance were positively correlated with perfectionistic strivings, while burnout was not. On the other hand, anxiety, core symptoms and secondary complaints of burnout were significantly correlated with perfectionistic concerns, although academic performance was not. These findings imply that whereas strivings could help students succeed academically, concerns are more obviously connected to mental health issues.

Third, regression analysis revealed that both perfectionistic strivings and concerns significantly predicted academic performance, but in opposite directions. Concerns had a negative predictive influence on CGPA, whereas strivings had a positive one. Only perfectionistic concerns were a significant positive predictor of anxiety, whereas strivings had no significant effect. Similarly, both aspects of burnout were significantly predicted by perfectionistic concerns, but not by strivings, highlighting their function as a maladaptive factor in the mental health of students.

Finally, the relationship between perfectionistic concerns and core burnout symptoms was found to be significantly moderated by gender according to moderation analysis. There were no further gender-related moderating effects observed in the relationships between perfectionism and secondary complaints of burnout, anxiety, or academic performance.

5.6 Implications of the Study

The results of this study shed important light on the complex relationship between students' psychological well-being and perfectionism, with a special emphasis on gender disparities.

These findings have implications for advancing theories, advancing research, and implementing real-world solutions in counselling and academic contexts.

5.6.1 Theoretical Implications

The results of this study make a significant theoretical contribution to the frameworks of Cognitive Behavioural Theory (CBT) and Self-Determination Theory (SDT) regarding perfectionism and its effects. The different psychological processes that underlie the two aspects of perfectionism, strivings and concerns, as well as their consequences for undergraduate students' emotional and academic functioning, are explained by these frameworks.

According to Self-Determination Theory (SDT), different levels of autonomous and regulated motivation may be reflected in perfectionistic strivings. Struggles are likely to align with autonomous motivation when they are motivated by internal goals and intrinsic values. This leads to more adaptive results, like persistence and better academic success. The current study's positive predictive value of aiming for CGPA lends credibility to this. But even among high-effort people, the existence of anxiety symptoms indicates that not all striving is solely self-determined. These behaviours may occasionally be the result of introjected regulation, a condition in which people manage themselves by internalizing external expectations and pressures, which causes stress and emotional expense even in the face of success.

Perfectionism, on the other hand, is more in line with SDT's controlled motivational styles, especially external and introjected regulation. Concerned students may act in ways that are not motivated by personal endorsement but rather by a fear of failing, embarrassment, or a desire for acceptance. This explains why, in this study, perfectionistic concerns did not improve academic performance but were linked to increased levels of anxiety and burnout. Despite their outstanding motivation, they lack psychological health and sustainability, underscoring the

internal struggle that results from the suppression of fundamental psychological needs for relatedness, competence, and autonomy.

From the perspective of Cognitive Behavioural Theory (CBT), maladaptive fundamental beliefs are directly associated with perfectionistic concerns. These cognitive distortions, particularly catastrophizing, overgeneralization, and all-or-nothing thinking, can cause students to set unattainable goals for themselves, which can exacerbate long-term stress, anxiety, and burnout. This cognitive–emotional mechanism is supported by the study's findings about the significant predictive significance of concerns in anxiety and both burnout dimensions. Students who are highly concerned may exhibit intrusive thoughts, emotional dysregulation, and avoidance behaviours that promote negative attitudes, even in the absence of actual academic failure.

On the other hand, more adaptable beliefs like appreciating competence or excellence may influence perfectionism. However, according to CBT, ambitious goals may still be psychologically dangerous if they are paired with inflexible thought patterns or conditional self-worth. When compared to concern-driven perfectionism, the result that strivings were unrelated to burnout and anxiety in regression models may indicate the existence of more adaptable beliefs and behaviours that act as a buffer against emotional pressure.

When combined, these theoretical stances highlight perfectionism's dual nature. While CBT explains the cognitive processes that support perfectionistic thinking and its psychological effects, SDT aids in explaining the motivating aspect of students' perfectionistic tendencies. This study's synthesis of both theories enables a deeper comprehension of how perfectionism functions in educational settings and emphasizes the significance of addressing not just the existence of perfectionism but also its cognitive and motivational causes.

5.6.2 Implications for Students

The results of the study indicate that both male and female students are vulnerable to the negative consequences of perfectionism, despite possible variations in expression. Female students' perfectionistic strivings were notably higher, indicating a strong desire to hold oneself to high standards. Even though it could increase academic performance, this could result in emotional exhaustion if it is not balanced with self-care and appropriate goal planning. Students should be taught about the negative impacts that perfectionistic impulses can have on their mental health and encouraged to develop good coping strategies in order to manage academic expectations.

5.6.3 Implications for Educators

Educators have a significant influence on how students view success, failure, and accomplishment. This study emphasizes the value of supporting learning environments where making mistakes is accepted as a natural part of the learning process and advocating for reasonable academic standards. Educators can assist students in developing more flexible attitudes toward their academic performance and lessen the pressure to be flawless by offering constructive criticism, encouraging mastery-oriented examinations, and recognizing effort rather than just results.

5.6.4 Implications for Counsellors and Mental Health Professionals

Counsellors and student support services need to understand that both male and female students experience perfectionistic issues, such as self-criticism and fear of failing. These issues are linked to detrimental emotional consequences, such as burnout and anxiety. Strategies to assist students in managing stress, overcoming illogical beliefs, and creating healthier coping mechanisms should all be part of mental health interventions. University

counselling centers could potentially implement workshops or psychoeducation programs on perfectionism, resilience, and self-acceptance.

5.6.5 Implications for the University

Universities should consider how their academic cultures and structures support students' perfectionism on an institutional level. Maladaptive perfectionism may be unintentionally reinforced by competitive grading schemes, an excessive focus on accomplishment, and a lack of attention to students' well-being. Institutions ought to put in place procedures and policies that foster a well-rounded academic culture, like peer mentoring, flexible grading schemes, and mental health support programs. Students may succeed academically and emotionally by fostering an environment on campus that prioritizes both academic achievement and well-being.

5.7 Recommendations for Future Research

The results of this study suggest that a structured psychoeducational module on perfectionism should be created and put into practice, with an emphasis on addressing perfectionistic issues in female students, who were found to be more susceptible to anxiety and emotional exhaustion. The program should encourage self-compassion, teach students cognitive-behavioural techniques to deal with unreasonable performance expectations, and assist them in distinguishing between healthy striving and maladaptive self-critical perfectionism. Such an intervention could be incorporated into student development programs or university counselling services to promote academic resilience and emotional well-being in at-risk groups.

5.8 Conclusion

This study investigated how gender affected undergraduate students' academic performance, anxiety, and burnout to perfectionism, including perfectionistic concerns and

strivings. The study sought to ascertain whether gender differs in these variables and whether gender decreases the impact of perfectionism on important psychological and academic outcomes using quantitative methodologies.

While there were no noticeable gender disparities in academic achievement, anxiety, burnout, or perfectionistic concerns, the results showed that female students reported far higher levels of perfectionistic strivings. Additionally, academic performance and anxiety were strongly correlated with perfectionistic strivings, while anxiety and both burnout dimensions were more consistently correlated with perfectionistic concerns. Only one relationship between burnout core symptoms and perfectionistic concerns was shown to be moderated by gender, suggesting that gender may affect the emotional impact of some perfectionistic features in different genders.

For educators, counsellors, and organizations looking to promote students' academic and emotional growth, the findings of this study have important implications. Higher education stakeholders can carry out more focused and successful interventions by acknowledging how perfectionism presents itself differently in different people and genders. It is recommended that future studies expand on these findings by developing a mental health intervention module focusing on perfectionism.

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Almost Perfect Scale-Revised (English)

Instructions

The following items are designed to measure attitudes people have toward themselves, their performance, and toward others. There are no right or wrong answers. Please respond to all of the items. Use your first impression and do not spend too much time on individual items in responding.

Respond to each of the items using the scale below to describe your degree of agreement with each item. Circle the appropriate rating for each item.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

Items	Ratings						
1. I have high standards for my performance at work or at school.	1	2	3	4	5	6	7
2. I am an orderly person.	1	2	3	4	5	6	7
3. I often feel frustrated because I can't meet my goals.	1	2	3	4	5	6	7
4. Neatness is important to me.	1	2	3	4	5	6	7
5. If you don't expect much out of yourself, you will never succeed.	1	2	3	4	5	6	7
6. My best just never seems to be good enough for me.	1	2	3	4	5	6	7
7. I think things should be put away in their place	1	2	3	4	5	6	7
8. I have high expectations for myself.	1	2	3	4	5	6	7
9. I rarely live up to my high standards.	1	2	3	4	5	6	7
10. I like to always be organized and disciplined.	1	2	3	4	5	6	7
11. Doing my best never seems to be enough.	1	2	3	4	5	6	7
12. I set very high standards for myself.	1	2	3	4	5	6	7
13. I am never satisfied with my accomplishments.	1	2	3	4	5	6	7
14. I expect the best from myself.	1	2	3	4	5	6	7
15. I often worry about not measuring up to my own expectations.	1	2	3	4	5	6	7
16. My performance rarely measures up to my standards.	1	2	3	4	5	6	7
17. I am not satisfied even when I know I have done my best.	1	2	3	4	5	6	7
18. I try to do my best at everything I do.	1	2	3	4	5	6	7
19. I am seldom able to meet my own high standards of performance.	1	2	3	4	5	6	7
20. I am hardly ever satisfied with my performance.	1	2	3	4	5	6	7
21. I hardly ever feel that what I've done is good enough.	1	2	3	4	5	6	7
22. I have a strong need to strive for excellence.	1	2	3	4	5	6	7
23. I often feel disappointment after completing a task because I know I could have done better.	1	2	3	4	5	6	7

Source:

Slaney, R. B., Mobley, M., Trippi, J., Ashby, J. S., & Johnson, D. G. (1996). *The Almost Perfect Scale-Revised*. Unpublished manuscript, The Pennsylvania State University, University Park.

Slaney, R. B., Rice, K. G., Mobley, M., Trippi, J., & Ashby, J. S. (2001). The revised Almost Perfect Scale. *Measurement and Evaluation in Counseling and Development*, 34, 130–145.

Scoring – APS-R

Standards = 1, 5, 8, 12, 14, 18, 22

Order = 2, 4, 7, 10

Discrepancy = 3, 6, 9, 11, 13, 15, 16, 17, 19, 20, 21, 23

Sum up the items corresponding to the three subscales to get your scores on *Standards*, *Order*, and *Discrepancy*.

Classification: (Rice & Ashby, 2007)

If your *Standards* score is below 42, you are not a perfectionist.

If you have a *Standards* score 42 and above, you are classified as a perfectionist.

- If you also have a *Discrepancy* score 42 and above, you are classified as a maladaptive perfectionist.
- If your *Discrepancy* score is below 42, you are a adaptive perfectionist

NOTE: You have my permission to use the APS-R for research only. Such use indicates agreement with the stated terms, is limited to one year from today's date, and involves appropriate citations in the event of publication. I would also like to be informed of any data gathered and findings on the scale.

GAD-7 Anxiety

Over the <u>last two weeks</u> , how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid, as if something awful might happen	0	1	2	3

Column totals _____ + _____ + _____ + _____ =

Total score _____

If you checked any problems, how difficult have they made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all

☐

Somewhat difficult

☐

Very difficult

☐

Extremely difficult

☐

Source: Primary Care Evaluation of Mental Disorders Patient Health Questionnaire (PRIME-MD-PHQ). The PHQ was developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke, and colleagues. For research information, contact Dr. Spitzer at ris8@columbia.edu. PRIME-MD® is a trademark of Pfizer Inc. Copyright© 1999 Pfizer Inc. All rights reserved. Reproduced with permission

Scoring GAD-7 Anxiety Severity

This is calculated by assigning scores of 0, 1, 2, and 3 to the response categories, respectively, of “not at all,” “several days,” “more than half the days,” and “nearly every day.”

GAD-7 total score for the seven items ranges from 0 to 21.

0–4: minimal anxiety

5–9: mild anxiety

10–14: moderate anxiety

15–21: severe anxiety

Student version of the BAT

Instruction

The following statements are related to your studies and how you experience that. Please state how often each statement applies to you.

Scoring

Never	Rarely	Sometimes	Often	Always
1	2	3	4	5

Core symptoms

	Never	Rarely	Sometimes	Often	Always
Exhaustion					
Due to my studies, I feel mentally exhausted*	☐	☐	☐	☐	☐
Everything I do for my studies requires a great deal of effort	☐	☐	☐	☐	☐
After a day working on my study, I find it hard to recover my energy*	☐	☐	☐	☐	☐
While working on my studies, I feel physically exhausted*	☐	☐	☐	☐	☐
When I get up in the morning, I lack the energy to get started with my studies	☐	☐	☐	☐	☐
I want to be active when I am working on my studies but somehow, I am unable to manage	☐	☐	☐	☐	☐
When I exert myself for my studies, I quickly get tired	☐	☐	☐	☐	☐
At the end of a day of working on my studies, I feel mentally exhausted and drained	☐	☐	☐	☐	☐
Mental distance					
I struggle to find any enthusiasm for my studies*	☐	☐	☐	☐	☐
When I am working on my studies, I do not think much about what I am doing, and I function on autopilot	☐	☐	☐	☐	☐
I feel a strong aversion towards my studies*	☐	☐	☐	☐	☐
I feel indifferent about my studies	☐	☐	☐	☐	☐
I'm cynical about the importance of my studies*	☐	☐	☐	☐	☐
Cognitive impairment					
When I am working on my studies, I have trouble staying focused*	☐	☐	☐	☐	☐
When I am working on my studies, I struggle to think clearly	☐	☐	☐	☐	☐
I am forgetful and distracted when I am working on my studies	☐	☐	☐	☐	☐

BURNOUT ASSESSMENT TOOL – Version for students

When I am working on my studies, I have trouble concentrating* ☐ ☐ ☐ ☐ ☐

I make mistakes while working on my studies because I have my mind on other things* ☐ ☐ ☐ ☐ ☐

Emotional impairment

I feel unable to control my emotions* ☐ ☐ ☐ ☐ ☐

I do not recognize myself in the way I react emotionally* ☐ ☐ ☐ ☐ ☐

I become irritable when things don't go my way ☐ ☐ ☐ ☐ ☐

I get upset or sad without knowing why ☐ ☐ ☐ ☐ ☐

I may overreact unintentionally* ☐ ☐ ☐ ☐ ☐

*Short 12-item version

Secondary complaints

	Never	Rarely	Sometimes	Often	Always
<i>Psychological distress</i>					
I have trouble falling or staying asleep	☐	☐	☐	☐	☐
I tend to worry	☐	☐	☐	☐	☐
I feel tense and stressed	☐	☐	☐	☐	☐
I feel anxious and/or suffer from panic attacks	☐	☐	☐	☐	☐
Noise and crowds disturb me	☐	☐	☐	☐	☐
<i>Psychosomatic complaints</i>					
I suffer from palpitations or chest pain	☐	☐	☐	☐	☐
I suffer from stomach and/or intestinal complaints	☐	☐	☐	☐	☐
I suffer from headaches	☐	☐	☐	☐	☐
I suffer from muscle pain, for example in the neck, shoulder or back	☐	☐	☐	☐	☐
I often get sick	☐	☐	☐	☐	☐